Additional Characterization and Sediment Sampling Data Summary Report Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

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ACRONYMS

µg/kg	microgram per kilogram
µg/L	microgram per liter
ASTM	American Society for Testing and Materials
AVS/SEM	acid volatile sulfides/simultaneously extracted metals
AWQC	Ambient Water Quality Criteria
BaPEq	benzo(a)pyrene equivalent
BF/MP	benzofluorenes/methylpyrene
CAB	cellulose acetate butyrate
cfs	cubic feet per second
cm	centimeter(s)
cms	cubic meter(s) per second
cm/yr	centimeter per year
COC	chemical(s) of concern
COPC	chemical(s) of potential concern
CSS	chemical stabilization/solidification
CWG	carbureted-water gas
EFDC	*Environmental Fluids Dynamics Code*
ERA	ecological risk assessment
ESA	environmental site assessment
Fl/Py	fluoranthene/pyrene
GC/SIM	gas-chromatography/selective-ion monitoring
GPS	Global Positioning System
HHRA	human health risk assessment
HPAH	high molecular weight polycyclic aromatic hydrocarbon
IDW	investigation derived waste
Lockheed Martin	Lockheed Martin Corporation
MAH	monoaromatic hydrocarbon
MBE	multi-beam echo-sounder
MCL	maximum contaminant level
MDE	Maryland Department of the Environment
META	META Environmental, Inc.
mg/kg	milligram per kilogram
MGP	manufactured gas plant
ml	milliliter(s)

mls	mean sea level
MQO	measurement-quality objective
MRAS	Middle River Aircraft Systems
MRC	Middle River Complex
MS2	Mission Systems & Sensors
MSA	Martin State Airport
MTBE	methyl tert-butyl ether
N/m^2	Newton's per square meter
NAD	North American Datum coordinate system
NAVD	North American Vertical Datum coordinate system
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
pCi/g	picocuries per gram
PEC	probable effects concentrations
PEL	probable-effects levels
PPE	personal protective equipment
ppt	parts per thousand
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
RBC	risk-based criteria
REC	Recognized Environmental Condition
RSL	regional screening level
SDBT	sediment dewatering bag test
SED	sediment
SDWA	Safe Drinking Water Act
SVOC	semivolatile organic compound
TEC	threshold-effects concentration
TCE	trichloroethene
TEL	threshold-effects level
Tetra Tech	Tetra Tech, Inc.
TOC	total organic carbon
UCC	unconfined compression strength
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VOC	volatile organic compound

Section 1
Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this data summary report characterizing the sediments of waterways adjacent to the Middle River Complex (MRC) located at 2323 Eastern Boulevard in Middle River, Maryland (see Figure 1-1). The objectives of this investigation program were to (1) finalize characterization of Dark Head Cove and Cow Pen Creek with respect to area-wide environmental conditions and (2) to establish the basis for risk assessment and, if necessary, evaluation of cleanup goals and potential remediation alternatives. Data from this investigation supplement and enhance sediment data collected during the 2005 and 2008 sediment investigations in the Cow Pen Creek and Dark Head Cove areas. The objectives were met by collecting an array of chemical, environmental, geotechnical, and physical data and conducting bathymetric surveys and hydraulic analyses of sediment stability. This summary report is organized as follows:

Section 2—Site Background: Briefly describes the site history and previous investigations

Section 3—Sediment Characterization: Presents the technical approach and field methodologies used for chemical sampling and analysis, hydraulic analysis of sediment stability, bathymetric surveying, benthic assessment, and pre-design testing

Section 4—Investigation Results: Presents the investigation results

Section 5—Summary and Conclusions: Summarizes the investigation findings

Section 6—References: Cites references used in compiling this document

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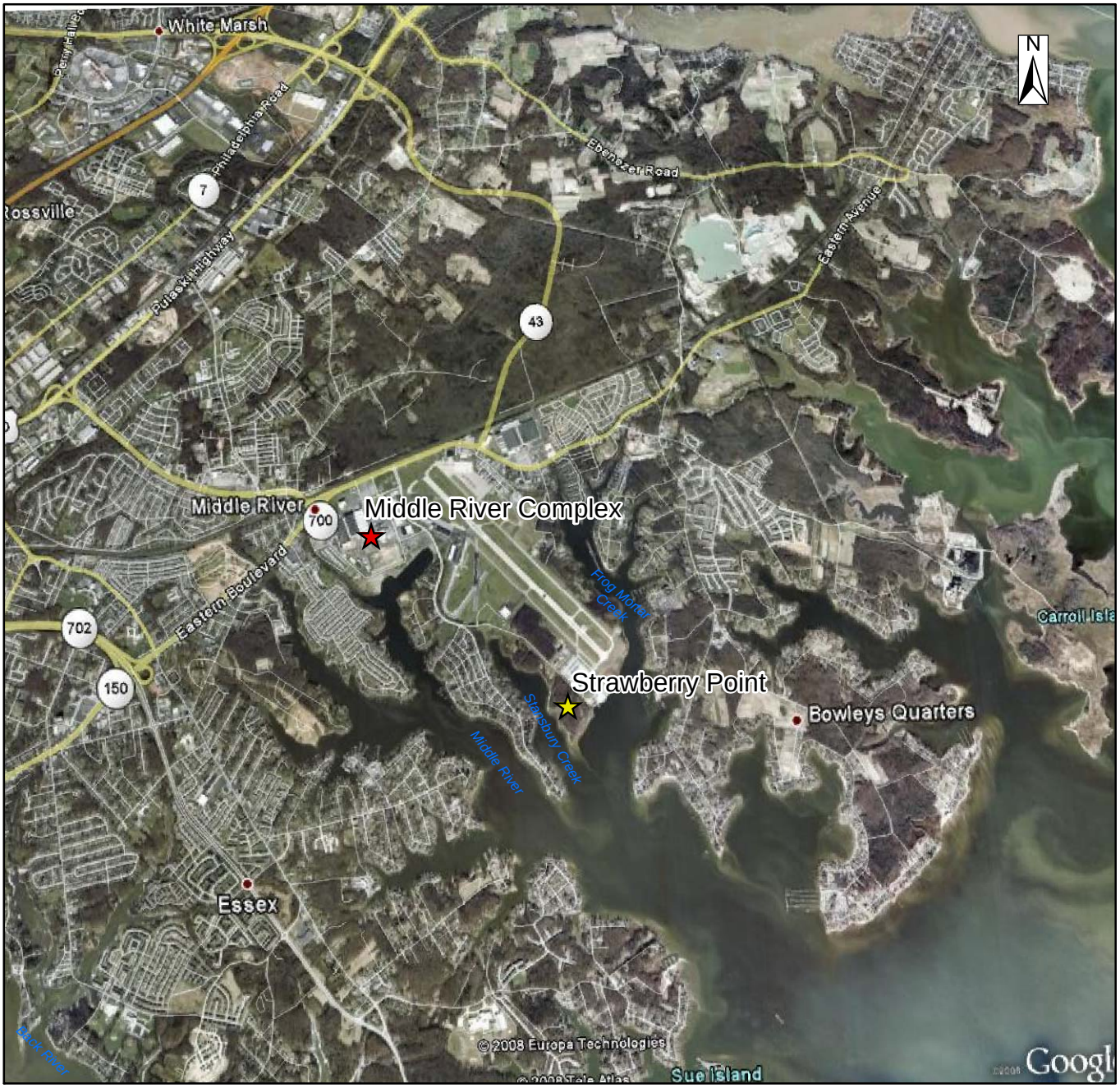

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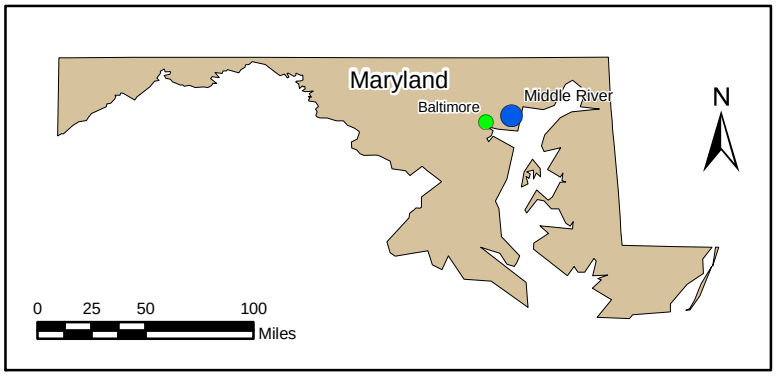

Figure 1-1

Middle River Complex
Site Location Map

Lockheed Martin Middle River Complex
Middle River, Maryland

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Tetra Tech, Inc.

Section 2
Site Background

2.1 SITE DESCRIPTION

The Middle River Complex (MRC) is at 2323 Eastern Boulevard in Middle River, Maryland. A facility layout map is provided as Figure 2-1. The site consists of approximately 180 acres of land and 12 main buildings. The property includes an active industrial area and yard, perimeter parking lots, an athletic field, a vacant concrete covered lot, a trailer and parts storage lot, and numerous grassy areas along the facility perimeter. Locked chain-link fences surround all exterior lots and the main industrial area. The site is bounded by Eastern Boulevard (Route 150) to the north, Dark Head Cove to the south, Cow Pen Creek to the west, and Martin State Airport (MSA) to the east.

Lockheed Martin activities at the site are primarily facility and building management and maintenance. Two main tenants occupy the site: Middle River Aircraft Systems (MRAS) and Mission Systems & Sensors (MS2). MRAS designs, manufactures, fabricates, tests, overhauls, repairs, and maintains aeronautical structures, parts, and components for military and commercial applications. MS2 fabricates, assembles, tests, and otherwise supports vertical-launch systems. The property has been used historically for aircraft- and missile launching-systems design, development, and sales.

2.1.1 Physical Setting

2.1.1.1 Land Use

The MRC is an industrial facility within the broader Chesapeake Industrial Park. The area surrounding the property primarily consists of commercial, industrial, and residential establishments. Six other facilities, comprising the remainder of the Chesapeake Industrial Park, lie adjacent to the MRC. These include Tilley Chemical Company, Inc. (a distributor of food- and pharmaceutical chemicals for the personal care and other industries), North American Electric (an industrial and commercial electrical contractor), Johnson and Towers (a heavy-duty

diesel equipment, truck, and boat repair and maintenance company), Poly-Seal Corp. (a producer of flexible packaging for various items), Exxon (a gasoline filling station and convenience store), and the Middle River Post Office. Residential developments lie on the opposite shores of Cow Pen Creek, Dark Head Cove, and Dark Head Creek (not shown in the figures but flowing from Dark Head Cove to Middle River, which is a tributary to Chesapeake Bay), as well as north of Eastern Boulevard (Route 150).

2.1.1.2 Physiography

The site lies in the Western Shore of the Coastal Plain Physiographic Province. Coastal Plain topography is generally characterized by low relief. MRC topography slopes gently, ranging from sea level to approximately 32-feet above mean sea level (Cassell, July 1977). The topography slopes from Eastern Boulevard to the southwest and south, toward Cow Pen Creek and Dark Head Cove.

2.1.1.3 Hydrology

The MRC lies at the junction of Cow Pen Creek and Dark Head Cove. Both are tidal surface water bodies that feed into Dark Head Creek, a tributary to Middle River, which is a tributary to Chesapeake Bay. The facility lies approximately 3.2 miles upstream of Chesapeake Bay. No surface water bodies lie in or cross the MRC.

Excluding areas immediately adjacent to Cow Pen Creek and Dark Head Creek, surface water runoff discharges from the facility via storm drains, soil infiltration, and evaporation. Nine stormwater drain-systems at the facility that discharge to Cow Pen Creek and Dark Head Cove were mapped by TAI Consulting Engineers in 2001 (see Figure 2-1). Other outfalls may have been used historically but are no longer in service. Stormwater runoff from the Chesapeake Industrial Park and a portion of MSA (across Wilson Point Road), as well as from some of the area along Eastern Avenue, is collected through a stormwater conveyance system and discharged to Cow Pen Creek and Dark Head Cove.

MRC maintains a State of Maryland National Pollutant Discharge Elimination System (NPDES) permit (State discharge permit No.: 00-DP-0298, NPDES permit No.: MD0002852) issued by Maryland Department of the Environment (MDE) Industrial Discharge Permits Division, Water Management Administration (Earth Tech, February 2003). MRAS generates sanitary- and

process-wastewater and is categorized as an Industrial User. The facility pre-treats and discharges its wastewater under the Industrial User Discharge Permit (permit No.: WWDP#1390), issued to MRAS by the Baltimore County Department of Public Works, Bureau of Utilities (Earth Tech, February 2003). The permit authorizes the facility to discharge its processed and sanitary wastewater from seven permitted discharge points (i.e., outfalls).

2.1.2 Subsurface Conditions

2.1.2.1 Soils

Soils underlying the MRC have been mapped as Mattapex-Urban Land Complex and Sassafras-Urban Land Complex by the United States Department of Agriculture (USDA) Soil Conservation Service. Mattapex-Urban Land soils consist of deep, well-drained silty soils, the original texture of which has been disturbed, graded over, or otherwise altered before construction. Sassafras-Urban Land soils consist of deep, well-drained sandy soils, the original texture of which has been disturbed, graded over, or otherwise altered before construction (USDA, 1993). MRC site assessment activities, however, indicate that a high percentage of these soils contain a very high clay and silt content, with poor surface drainage.

2.1.2.2 Geology

Geologic maps of Baltimore County show that the MRC is underlain by the Potomac Group, a Cretaceous-age interbedded gravel, sand, silt, and clay unit ranging in thickness from 0–800 feet. The Potomac Group is composed of three units: the Raritan and Patapsco Formations, the Arundel Clay, and the Patuxent Formation. The Raritan and Patapsco Formations range up to 400 feet thick and are composed of a gray, brown, and red variegated silt and clay unit with lenticular lenses of sand and few gravels. The Arundel Clay is composed of dark gray and maroon lignitic-clays ranging from 25–200 feet thick. The Patuxent Formation is described as a white or light-gray to orange-brown, moderately sorted sand unit with quartz gravels, silts, and clays ranging up to 250 feet thick (Reinhardt, 1977).

The Geologic Map of the Middle River Quadrangle (Reinhardt, 1977) maps the entire survey area as either the clay or the sand facies of the Patapsco Formation. The sands are more concentrated on the peninsulas east of MSA and in areas north of Eastern Boulevard, whereas all of the peninsulas (except for the Wilson Point Road area) west of the airport are mapped as

belonging to the clay facies. The Arundel Clay is mapped as outcropping northwest of the MRC facility (Reinhardt, 1977).

Logging of soils beneath the MRC (conducted during extensive site characterization activities) have identified a very heterogeneous substrate. The underlying soils are composed primarily of silty sands, fine-grained to medium-grained sands, silty clays, clayey silts, and plastic clay, with the primary lithology being clay to silty clay. Sand lenses were encountered but in general do not appear to be continuous beneath the facility. Shallow groundwater tends to flow in the more sandy lenses toward the surface water bodies, and the water table is generally a subdued representation of the surface topography.

2.2 PREVIOUS INVESTIGATIONS

Numerous environmental investigations have been conducted at the MRC. These include underground storage tank closures and abandonments, soil excavations, and Phase I and II environmental site assessments (ESAs). In 2003, a facility-wide Phase I ESA was conducted at the MRC. The Phase I ESA investigation identified 13 Recognized Environmental Conditions (RECs) at the facility that are associated primarily with current site conditions (Earth Tech, February 2003). Subsequent review of historical site activities identified another 18 RECs at the facility (Tetra Tech, August 2004).

Many of the RECs are in the southern portion of the facility along the waterfront. Soil and groundwater sampling at the RECs identified sporadic soil and groundwater impacts to environmental media underlying the facility. The MRC has entered into the MDE Voluntary Cleanup Program (VCP), and studies of soil and groundwater at the MRC are ongoing.

With respect to surface water and sediment studies, on March 17–18, 2005, surface water and sediment samples were collected from the surface water bodies (i.e., Cow Pen Creek, Dark Head Cove, and Dark Head Creek) adjacent to the facility's southern and western property boundaries. Ten additional surface water and 50 additional sediment samples were collected in October 2005 to further characterize and delineate chemicals identified during the March sampling event. The later event included much more extensive investigation of Dark Head Cove, as well as vertical profiling of chemical concentrations in sediments.

In March 2005, seven surface water samples (SW-1 through SW-7) and 12 sediment samples (SD-1 through SD-12) were collected from Cow Pen Creek and Dark Head Cove. Two (SW/SD-1 and SW/SD-2) were collected as background reference samples, one (SW/SD-1) was hydraulically upgradient of the facility's first outfall (along Cow Pen Creek), and one (SW/SD-2) was from a cove in Dark Head Creek. The remaining sampling locations were positioned along the facility waterfront approximately 10 feet from the shoreline and spaced to generally coincide with outfall locations.

In October 2005, 10 surface water samples (SW-8 through SW-17) and 50 sediment samples were collected from 30 locations (SD-13 through SD-42) in Cow Pen Creek and Dark Head Cove. Surface-water sampling locations were distributed to provide data sufficient to broadly evaluate surface water quality. Sediment sampling locations were chosen to evaluate the horizontal distribution of chemicals of concern (COC) previously identified in March 2005.

Surface sediments were collected from all 30 sediment sampling locations (approximately the top six inches of unconsolidated material). At nine of the 30 sampling locations (SD-13, -14, -16, -19, -27, -28, -29, -40, and -42), samples were collected at depths of approximately 1–2 feet below the sediment/surface water interface. Sampling locations selected for coring were relatively close to the MRC shoreline and were intended to confirm previous sampling results and evaluate the vertical distribution of chemicals.

The 2006 human health risk assessment (HHRA) evaluated incidental ingestion and dermal contact with surface waters and sediments as direct-contact exposure-pathways based on data from the 2005 sampling events. Risks associated with consumption of fish from the study area were not evaluated in the 2006 HHRA. The 2006 HHRA concluded that non-carcinogenic effects for both surface water and sediment are regulatorily acceptable because the Hazard Index calculated for a hypothetical recreational receptor is less than 1.0. Carcinogenic risks of exposures to surface water (incidental ingestion, dermal contact) are less than the MDE threshold limit of 1^{-05} (i.e., a one–in-100,000) probability of developing cancer (Tetra Tech, 2006). Carcinogenic risks for exposures to sediment exceeded this MDE threshold for carcinogenic effects; however, the estimated risks are within the U.S. Environmental Protection Agency (USEPA) acceptance range of 1E-04 to 1E-06, (i.e., a one-in-10,000 to one-in-one-million) probability of developing cancer.

Moreover, the risk assessment overstates exposure to sediments, as the water depth of the surface water bodies will minimize direct exposure to contaminated sediments. Arsenic, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) were identified as the primary COC in sediment. Arsenic concentrations in sediment are likely attributable to naturally occurring background concentrations. The HHRA's estimates of potential risk are presumed conservative. The 2006 ecological risk assessment (ERA) (likewise based on the 2005 data) identified cadmium in surface water and barium, silver, benzo(a)pyrene, benzo(g,h,i)perylene, and indeno(1,2,3-cd)pyrene as the primary chemicals of potential concern (COPC) in sediment. Food-chain modeling also identified mercury in sediment as a concern (Tetra Tech, 2006).

Additional sediment sampling in November 2008 generated analytical data to better define the distribution of PCBs and other potential COPC, primarily PAHs and metals (identified during the March and October 2005 sampling events). The samples were also collected to better delineate the horizontal and vertical extent of the sediment impacts. The November 2008 sampling focused on areas where initial sampling had indicated that concentrations of potential site COPC were elevated, as well as on adjacent areas. Additional locations were also sampled due to the lack of data for deeper sediment (depths >6 inches). All 2005 and 2008 sampling locations are shown in Figure 2-2.

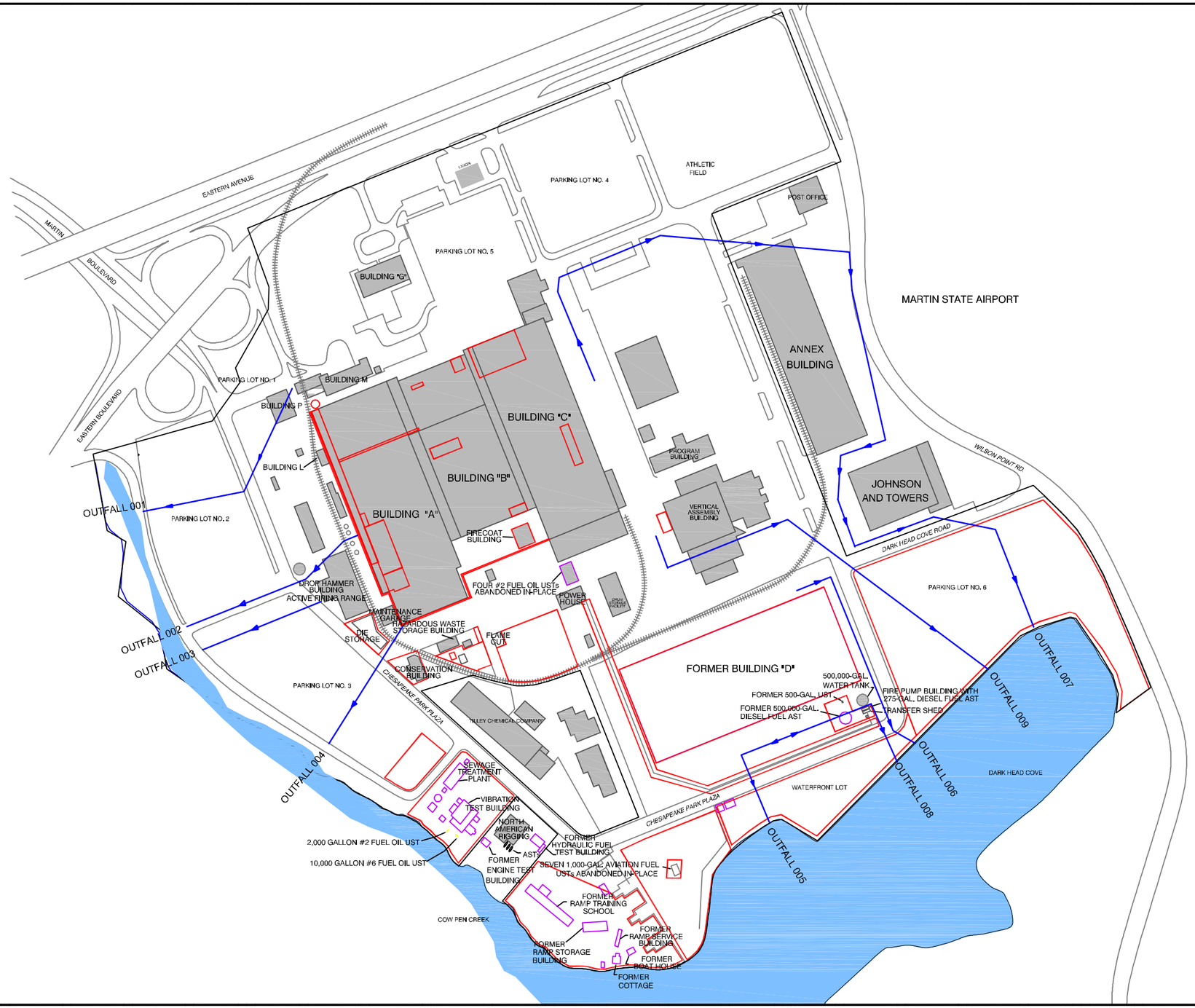

FIGURE 2-1

MIDDLE RIVER COMPLEX FACILITY MAP

LEGEND

OUTFALL 004 NPDES PERMITTED OUTFALL

STORMWATER AND FLOW DIRECTION

EXISTING STRUCTURE

FORMER STRUCTURE

Lockheed Martin Middle River Complex
Middle River, Maryland

0 200 400

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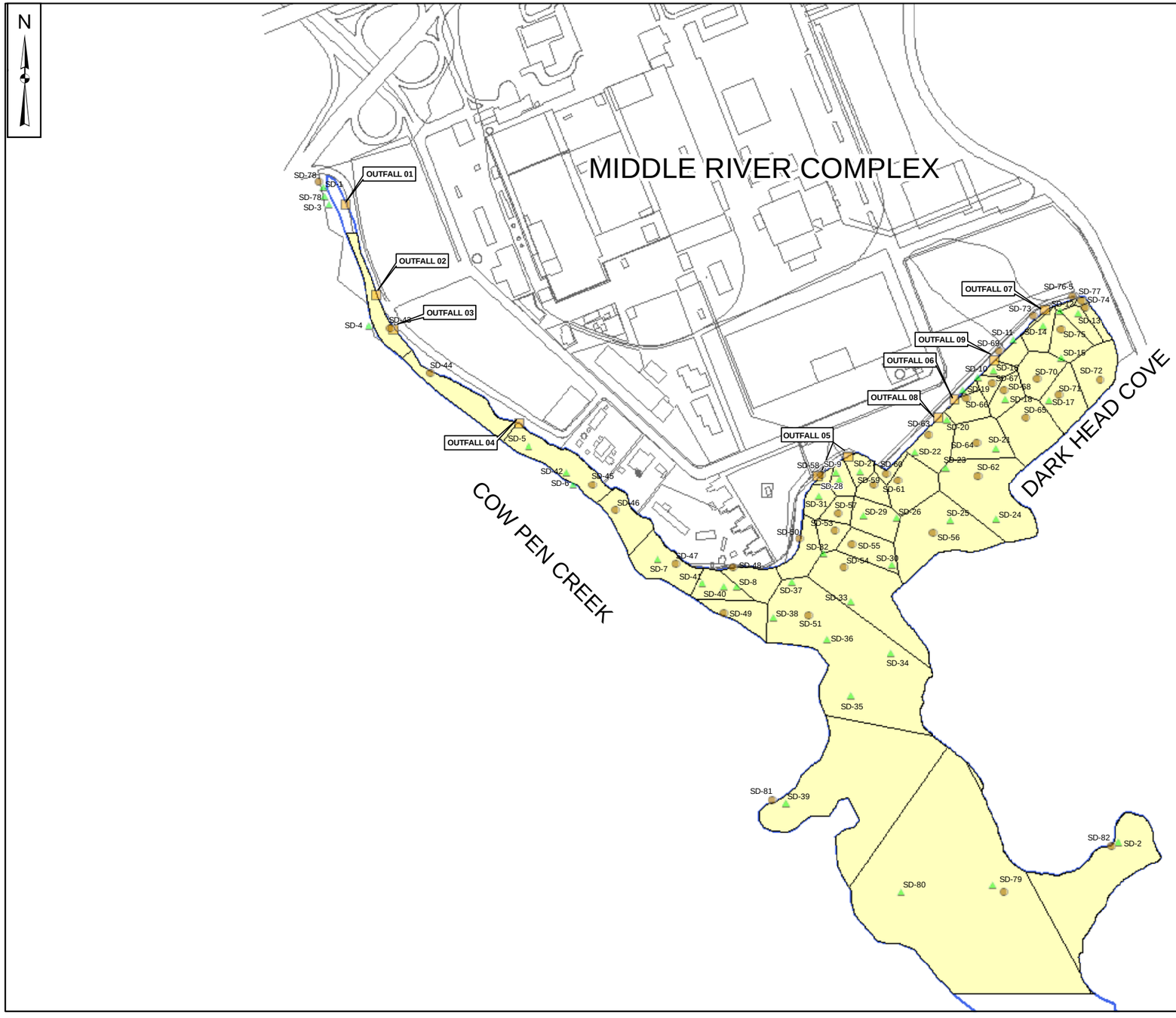

TETRA TECH

Figure 2-2
Historic Sample Location Map
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Sample Locations- 2005
- Sample Locations- Nov 2008
- Stormwater Outfall Locations
- Middle River Complex
- Water

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Feet

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Section 3
Sediment Characterization

Sediment samples were collected from selected locations in Cow Pen Creek, Dark Head Cove, Dark Head Creek, and three reference locations (Marshy Point, Bowleys Quarters, and Middle River at a location removed from possible Middle River Complex [MRC] influences). The sampling program began in summer 2010. These sampling locations are new locations that vary from previous work in the associated surface water bodies. These additional data were collected to supplement the data collected in earlier investigations. The sampling program's multiple objectives were as follows:

- chemical sampling for polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and metals, focused on areas lacking sufficient data
- additional chemical sampling and analyses for alkylated PAHs were conducted on a subset of samples to forensically evaluate possible sources of these compounds
- porewater was sampled in areas with elevated concentrations of metals, PAHs, and PCBs, aiding in the evaluation of steady state concentrations of the potentially bioavailable fractions of these contaminants in affected sediments
- porewater was sampled adjacent to the shoreline at areas of potential groundwater discharge where documented land based concentrations of volatile organic compounds (VOCs) are moving toward surface water bodies via contaminated groundwater at the MRC
- sediment-age dating was conducted to evaluate sediment stability, estimating the period during which chemicals of potential concern (COPC) may have been released to the sediments and to assess rates of natural recovery
- upstream samples were collected to evaluate what chemicals may be moving into Cow Pen Creek and Dark Head Cove from off-site areas along Eastern Avenue and Martin State Airport (MSA), respectively
- physical characterization sampling and testing was conducted to evaluate characteristics of the various sedimentary environments that may affect remedial activities and factor into feasibility studies

- benthic macroinvertebrates were sampled to assess the diversity and abundance of indigenous organisms in Cow Pen Creek and Dark Head Cove relative to three reference areas near Middle River

- a bathymetric survey accurately mapped the sediment bed

3.1 CHEMISTRY-CHARACTERIZATION SAMPLING

Sediment samples were collected from 24 site locations (SD-83 through SD-106) and three reference locations: Marshy Point (Marshy Point–SS, -01, -02, -04), Bowleys Quarters (Bowleys Quarters-SS, -01, -02, -04), and a Middle River location believed to be removed from possible MRC influences (Middle River Downstream-SS, -01, -02, -04). Sampling locations were selected primarily to better delineate the lateral and vertical distribution of COPC in sediments offshore of the MRC. Figure 3-1 presents the sediment sampling locations and Figure 3-2 depicts the three reference locations.

The areas for the reference locations were selected based on their similarity to the 24 sediment locations that were sampled. Criteria such as water depth, similar sediment substrate and the lack of easily discernable potential sources of impacts were determining factors in selecting reference locations (see Appendix A for field documentation). For example, if sediment samples were collected in three feet of water in a sandy substrate, the reference location would be collected in a location with similar conditions (as opposed to an area of six feet of water and a more silty or clayey sediment).

3.1.1 Sample Collection

Normandeau Associates, Inc. (Stowe, Pennsylvania) was subcontracted to provide vessels, equipment, and personnel necessary to collect sediment cores. Core-sampling tubes were advanced by manual and mechanical (i.e., vibrating head) means, depending on the sampling location's accessibility, sediment substrate, and the sediment resistance of creek bottom materials. Samples were collected primarily from Normandeau's coring vessel using a Rossfelder Corp. P-3 electric powered underwater vibracoring device. Several different sampling tubes were used depending on the type of sample collected.

The vibracorer was equipped with a four inch inside-diameter cellulose-acetate butyrate (CAB) sampling tube for the sediment cores. An aluminum Shelby type sampling tube was used to collect the geotechnical samples and a stainless-steel tube was used to collect bulk sediment

samples. In areas where water depths prohibit the use of the vibracoring vessel, surface water/sediment interface samples were collected by manually driving a CAB tube into the subsurface using manual methods (a wooden block and a hammer). All reusable equipment contacting sediments was decontaminated between sampling locations, as described in Section 3.1.3.

Samples were logged to describe sediment characteristics, such as color, grain size, sorting, texture, and any other pertinent soil characteristics. The sediment's textural properties were determined using tables specified in the American Society for Testing and Materials (ASTM) D2488-00 method. Sorting was determined by observing grain size distribution. Grain size was determined by comparing sediment grains to a grain size chart. Sediment color was determined by comparing core samples to Munsell® Soil Color Charts. All sediment characterization data are presented on the sediment sampling forms in Appendix A (Field Documentation).

Sediment samples were collected from each location at four depths: 0–6, 6–18, 18–30, and 30-52 inches below the surface water/sediment interface. These intervals are consistent with depths sampled during previous investigations and allow for consistency in data evaluation and risk assessment. Samples from all four depth intervals could not be collected at several sediment sampling locations (SD-84, SD-91, and SD-92) because core refusal was encountered before reaching the target depth. Only two depth intervals were collected from SD-91 (0–6 and 6-17 inches) and SD-92 (0–6 and 6–14 inches). Three depth intervals were collected from SD-84 (total depth 32 inches). Core refusal was due to encountering substrate, such as compacted sediment and shell deposits.

Each sampling location was surveyed using a portable Trimble Geo XH global positioning system (GPS) with sub-meter accuracy. The GPS unit uses the North American Datum (NAD) 83 coordinate system. Tide stage at the time of the survey was recorded and the depth to the top of the surface water/sediment interface was measured using a weighted tape. Sampling intervals and the total depth of the vibracore borings were also recorded. All information was documented on the sediment sampling forms (see Appendix A).

All sediment samples were analyzed for PAHs by U.S. Environmental Protection Agency (USEPA) SW846 Method 8270 gas-chromatography/selective-ion monitoring (GC/SIM), for PCBs by USEPA SW846 Method 8082, and for priority pollutant metals by USEPA SW864

Method 6010C/6020 (including analysis for mercury by Method 7471A). Seven of the 24 sampling locations were analyzed for acid volatile sulfides/simultaneously extracted metals (AVS/SEM). Five of the 24 locations were also analyzed for total petroleum and saturated hydrocarbons based on the following methods: USEPA 8015D, USEPA 8100, and USEPA 8000C and for parent and alkylated PAHs, selected heterocyclic compounds, steranes, triterpanes, and triaromatic steroids based on USEPA Method 8270C. Table 3-1 presents the samples collected and the analyses performed.

Additional samples were collected for quality assurance purposes at a frequency of approximately 10%. Five duplicate samples (SD-DUP1-01, SD-DUP2-04, SD-DUP3-SS, SD-DUP4-02, and SD-DUP5-01) were also collected and submitted for PAHs, PCBs, and priority pollutant metals analyses. All sample analyses, except for alkylated PAHs, were analyzed by TestAmerica Laboratories in Knoxville, Tennessee. Alkylated PAH analysis was performed by META Environmental, Inc. (META) in Watertown, Massachusetts. Samples were analyzed on a standard 15-business-day turnaround. Table 3-1 presents the samples collected and the analyses performed.

3.1.2 Sample Nomenclature and Handling

Samples submitted to the laboratory were labeled with an "SD" prefix identifying the sampled medium as sediment, followed by a two digit numeral to identify the sampling location, followed by an indication of the depth interval: "SS" for surface sediment (0–6 inches), "01" for the 6-18 inch depth sample, "02" for the 18–30 inch depth sample, and "04" for the 30–52 inch depth sample. For example, SD-83-SS would identify a surface sediment sample collected at location 83 and SD-85-02 would be for the 18–30 inch depth sample from location 85. Porewater samples (as discussed in Section 3.2) were designated with a "PW" prefix and then a sequential number.

Sediment cores were processed onshore, and care was taken to avoid disturbing the sediment during transport. Sediment from each specific sampling interval was homogenized in disposable aluminum pans using disposable plastic spatulas. After the sediment was homogenized, a representative sample was placed in the sampling containers supplied by the analytical laboratory and packed with ice (when necessary) for sample preservation.

Proper custody procedures were followed throughout all phases of sample collection and handling. Chain of custody protocols were used throughout sample handling to establish the

evidentiary integrity of sample containers. Sample containers were released under signature to the laboratory. Transport containers were sealed with strapping tape and a tamper-proof custody seal. The custody seal contains the signature of the individual releasing the transport container, along with the date and time.

3.1.3 Equipment Decontamination

Reusable sampling equipment was decontaminated between sampling locations before each use as follows:

- Alconox® and potable water wash
- potable water rinse
- rinsing and thoroughly wetting the equipment with reagent grade isopropanol
- analyte-free water rinse
- air drying
- decontamination solutions were collected for disposal as discussed in Section 3.1.4

3.1.4 Waste Management

Investigation derived waste (IDW) (consisting of equipment rinse water, residual sample cores, and personal protective equipment) was generated during this sediment sampling event. Personal protective equipment was dry brushed to remove any gross soil/sediment, placed in trash bags, and disposed of in a Lockheed Martin-designated trash container. Residual sample cores and equipment rinse water were collected and stored in U.S. Department of Transportation approved 55-gallon drums. Three drums of IDW (one drum of sediment and two of decontamination/rinse water) were generated during the sediment investigation. All drums were appropriately sealed, secured, labeled, and logged on a drum inventory form.

Samples of the IDW were collected and submitted for characterization analyses. Upon receipt of the IDW analytical data, the generated IDW was removed from the facility and properly disposed of at a Lockheed Martin-approved disposal facility in accordance with federal, state, and local regulations. All IDW was disposed of as non-hazardous waste. The IDW documentation and records are in Appendix B.

3.2 SEDIMENT POREWATER SAMPLING

Sediment-porewater samples were collected to determine the equilibrium concentrations of COPC in porewater laterally and vertically near the MRC. These data will be used to evaluate the potential risk posed to sediment dwelling organisms by estimating the steady state concentrations of COPC in porewater at areas with elevated COPC concentrations in sediment. Samples were also collected to quantify concentrations of VOCs in porewater that may be affected by discharge from groundwater plumes at the MRC.

3.2.1 *In situ* Porewater and Surface Water Sampling

Eight porewater samples were collected for VOC analysis from locations immediately offshore and oriented to the inferred location of the two VOC plumes at the MRC. The eastern plume is inferred to discharge into Dark Head Cove (DHC-PW-VOC-1, -2, -3, -4, and -5) and the western plume is inferred to discharge into Cow Pen Creek (CPC-PW-VOC-1, -2 and -3). Samples were collected along transects of the eastern and western plumes. Sampling locations were spaced to provide a combination of both near shore and offshore (approximately 50 feet offshore) locations, bracketing the identified land based dimensions of the plume (Figure 3-1).

Porewater and surface water samples were collected from the five proposed locations in Dark Head Cove. Porewater and surface water samples were collected from three of the five proposed locations in Cow Pen Creek. Samples were not collected from two of the Cow Pen Creek locations because the dense nature and clayey consistency of the substrate and low porewater flow rates prohibited collection of adequate volumes for analysis.

3.2.1.1 *In situ* Porewater Sampling

In situ porewater samples were collected during two sampling events. During the initial event, a Solinst Model 615 drive-point piezometer was used to collect sediment porewater for VOC analysis. The piezometer has a six-inch long, stainless steel, 50-mesh cylindrical filter screen in a ¾-inch (20 millimeter [mm]) stainless-steel drive-point body and screen support. The strengthened connector at the top of the drive point acts as an annular seal. The drive point was attached to sections of ¾-inch galvanized-steel drive pipe of appropriate length to reach the target sampling depth. A 2-inch diameter polyvinyl chloride (PVC) pipe sealed at the bottom with a plastic bag was driven approximately 18 inches into the sediment to act as a seal for the

outer casing preventing surface water intrusion before installation of the temporary piezometers. The piezometer was manually inserted into the center of the PVC casing and pushed through the plastic bag seal into the sediment to a maximum depth of 36 inches below the surface water/sediment interface.

The piezometer was purged using a peristaltic pump and, when possible (depending on production of porewater), conductivity, temperature, dissolved oxygen, salinity, and pH were measured using a YSI 556 field meter to determine the interface between groundwater and the brackish surface water (see Appendix A for field documentation). Sediment-porewater samples were collected from the fresh groundwater zone in the sediment. The piezometers and drive pipe were manually retrieved and decontaminated between each sampling location before each use as follows:

- Liquinox® and deionized water
- deionized water
- air drying

Not all of the proposed *in situ* porewater samples could be collected during the initial sampling event due to insufficient recovery of porewater in fine-grained sediments. Additional sampling was done using a modified sampling approach that replaced the six-inch Solinst Model 615 S drive-point piezometer with a 12-inch model fitted with a hose barb. The increased length was intended to provide additional sampling surface area. A hose attached to the barb on the piezometer extended through the ¾-inch pipe to the vessel where, if necessary, a hand operated vacuum pump was used to create a negative pressure in an effort to induce flow of porewater into the piezometer. Samples were collected during periods of rising tide during the first event on September 1–2, 2010 and during an already low tide exacerbated by the approach of a strong tropical system during the second event on September 29, 2010. Samples were analyzed for VOCs by TestAmerica Laboratories in Knoxville, Tennessee.

3.2.1.2 Surface Water Sampling

Eight co-located surface water samples (DHC-SW-VOC-1, -2, -3, -4, and -5 and CPC-SW-VOC-1, -2, and -3) were collected along with the porewater VOC samples offshore from the two VOC plumes in MRC groundwater. Two surface water samples (DHC-SW-6 and -7) were also collected at locations away from plume discharge areas, in a presumably unaffected

area across Dark Head Cove at the Wilson Point Park public boat launch and dock. Surface water samples were collected as grab samples from approximately one foot above the surface water/sediment interface, using a weighted-glass sampling vial.

The surface water samples were transferred to 40-milliliter (ml) glass sampling vials and preserved with hydrochloric acid. Surface water samples from Dark Head Cove and Cow Pen Creek (10 samples, plus one quality assurance/quality control [QA/QC] sample) were analyzed for VOCs. Inadequate sample volume prohibited analysis for 1,4-dioxane in porewater, so this analysis was not performed for surface water samples.

3.2.2 *Ex situ* Porewater Sampling

To evaluate the equilibrium concentrations of COPC in porewater both laterally and vertically near the MRC, sediment was collected from seven locations throughout the site using a four-inch vibracore aluminum-core sampling tube. Two cores were collected for chemical analyses at each sampling location (PW-01 through PW-07). Cores were collected from a minimum depth of 30 inches below the surface water/sediment interface at two locations in Cow Pen Creek (PW-01 and -02), from three locations in Dark Head Cove (PW-03, -04, and -05), and from two locations at the confluence of Dark Head Cove and Cow Pen Creek (PW-06 and -07) (see Figure 3-1). The cores for porewater analysis were separated into three incremental sections corresponding to the top three intervals sampled for chemical compounds in sediments (0–6, 6–18, and 18–30 inches below the surface water/sediment interface). At one porewater sampling location (PW-01), the depths from the cores were 16 and 24 inches, which represent the total target depth. Porewater could not be extracted at two of the five proposed sampling locations in Cow Pen Creek.

All sample cores were capped, sealed, and shipped in ice-cooled containers under appropriate chain of custody documentation to TestAmerica Laboratories in Knoxville, Tennessee for analysis. Porewater was extracted at the laboratory by centrifugation. All porewater samples were analyzed for priority pollutant metals. Per the sampling plan, PAHs and PCBs in porewater were only to be evaluated from two intervals in samples from Dark Head Cove where elevated concentrations of these compounds have been found in sediments. All three intervals in samples collected from Dark Head Cove (PW-03, -04, and -05) were analyzed for PAHs and PCBs.

3.3 SEDIMENT AGE DATING

Sediment cores were collected at three locations between August 23–25, 2010 for evaluation of sediment age, stability, and sedimentation rate. The sediment cores were collected from identified depositional areas in Dark Head Cove (DHC-3, -8, -16, -26, -38, and -55), from the confluence of Dark Head Cove and Cow Pen Creek (CPC-3, -10, -21, -35, -50, -70, -71, and -72), and in Dark Head Creek near Middle River (CON-3, -8, -16, -27, -39, and -57). Sediment cores were collected and handled in a manner to minimize disturbance and preserve sediment stratification in the cores. To meet sample volume requirements for age dating analyses, a three-inch diameter core was collected to provide at least 20 grams of dry material equivalent from the smallest sections collected. Following collection, the cores were processed for shipment to the analytical laboratory for selected radioisotope age dating analyses.

The collected cores were brought onshore and sectioned into discrete 2 centimeter (cm) intervals using a specially designed sampling device. The transverse sections of core were transferred in the field to pre-cleaned, wide-mouth glass sample jars, and shipped to Mass Spec Services laboratory in Orangeburg, New York for age dating. Appropriate steps were taken to minimize leakage, which could affect dry bulk density determinations. No special storage requirements were needed. Six sample jars from selected depths in each core were sent to Mass Spec Services laboratory. Two additional samples were included as matrix spike and matrix spike duplicates, for quality control.

The suite of sediment samples was analyzed for lead-210 (Pb-210) and cesium-137 (Cs-137). The results were plotted and used to recommend analysis of six additional sections from each core to refine the chronology study. These samples, plus two quality control samples, were submitted to the laboratory and received on September 22, 2010 and September 27, 2010. The second suite of samples was analyzed at the laboratory and the results were added to the plots for each core.

3.4 STORMWATER SAMPLING AND ANALYSIS

Two stormwater samples and one sediment sample were collected from the head of Cow Pen Creek (including runoff from Eastern Boulevard) and from the outfalls of MSA (a composite from the two outfalls). The stormwater and sediment samples were collected to evaluate whether stormwater may be transporting land based contaminants not associated with the MRC to

sediments in Cow Pen Creek and Dark Head Cove. Samples were collected during a rain event and sampling was consistent with the protocols outlined in USEPA's National Pollution Discharge Elimination System (NPDES) Stormwater Sampling Guidance Document (EPA 833-8-92-001).

One sediment sample (MRC-SED-1) and two stormwater samples (MRC-SW-1 and MSA-SW-1) were analyzed for total metals and alkylated PAHs. The sediment sample from Cow Pen Creek was collected from outside the pipe in the outfall basin, directly below where the water exits the pipe. No sediment sample was collected from the MSA outfall due to the pipe being submerged.

3.5 BENTHIC MACROINVERTEBRATE SAMPLING

Benthic macroinvertebrate samples were collected to evaluate the status of benthic communities residing in sediment at the site. Benthic invertebrate samples from three reference locations (Marshy Point, Bowleys Quarters, and Middle River) were be used to evaluate the results from the site samples (Cow Pen Creek and Dark Head Cove).

3.5.1 Sample Collection

Benthic macroinvertebrate samples were collected from seven site locations and three reference locations. These include two locations in Cow Pen Creek (BN-CPC-1, and -2) and five in Dark Head Cove (BN-DHC-1, -2, -3, -4, and -5) (see Figure 3-1 and Table 3-1). To compare these locations with similar environments in the Middle River area, Tetra Tech performed identical diversity and abundance assessments at the three reference areas.

The reference areas include one with little to no shoreline development (Marshy Point [BN-MP-1]), one with typical regional waterfront development (e.g., Bowleys Quarters [BN-BQ-1]), and the Middle River (BN-MRC-1) at a location presumed removed from potential MRC influences. Reference locations are shown in Figure 3-2. Reference locations were originally selected before mobilization to be representative of sediment conditions in an urbanized coastal area reflecting non-point runoff. The final sampling locations in each reference area were selected in the field to avoid potential effects associated with any recognized industrial point sources. Reference locations were confirmed with GPS readings during field reconnaissance in the initial stages of fieldwork to ensure that the specific reference sampling locations are similar in nature to the sampling locations in Cow Pen Creek and Dark Head Cove.

Criteria to assess the similarity of the reference locations to the site locations include grain size, water depth, salinity, temperature, and pH. Field instrumentation measured salinity, temperature, dissolved oxygen, and pH. Depth was measured with a tape and grain size was evaluated qualitatively by comparison to a grain size chart. To compare substrate from the reference locations, a composite sample was collected from each sampling location and analyzed for grain size, total organic carbon (TOC), PCBs, PAHs, and total priority pollutant metals.

Some effort was needed to minimize spatial variability of analytical results due to the heterogeneity (patchiness) of the benthic macroinvertebrate fauna in tidally influenced brackish water. To assist in this, five individual grab samples were collected at each sampling location. The individual grab samples at each location were collected from within an approximately 25-foot circle, taking care to avoid sampling the same sediment twice. The five individual grab samples for each sampling location were processed at the laboratory as a single sample.

3.5.2 Sampling Protocols

Samples of benthic macroinvertebrates were collected at each location from a boat using a Petite Ponar® grab sampler. Sediment from each sample was placed in a 500-micron-sieve bucket and wet sieved to remove all sediment particles smaller than 500 microns. Sediment remaining on the sieve was placed in sampling containers filled with 90% ethanol to preserve the organisms. The sampling containers were labeled with the following information:

- sample number
- sampling location
- number of containers comprising the sample
- replicate number
- sampling date
- sampler's initials

Samples were taken to Tetra Tech, Inc's. (Tetra Tech's) Biological Research Facility in Owings Mills, Maryland and held for analysis. No holding times apply once the samples are preserved. Analysis of the benthic macroinvertebrate samples was deemed necessary based on the outcome of the other evaluations described herein; therefore, the following steps were conducted:

1. All primary sample processing (sorting and taxonomic identifications) was performed by a subcontract laboratory. Taxonomic identifications for QC analysis were performed by Cove Corporation and Versar laboratories

2. Samples were sorted (that is, separating organisms from the sampled material) in the laboratory, and all samples were sorted in their entirety (i.e., no sub-samples were taken), with the aid of magnification

3. Taxonomic determinations could remain at a coarser level if specimen characteristics such as damage or fragmentation, and early instar (newly hatched) or juvenile specimens, precluded greater specificity, since the target hierarchical level for taxonomic identification was primarily genus. The taxonomist entered the data electronically into an *Excel*® spreadsheet in a standard format that allowed straightforward uploading to the database described below

4. This project used the Microsoft *Access*®-based *Ecological Data Application System* database to facilitate data entry, management, and analysis.

3.5.3 Quality Assurance and Quality Control

After primary taxonomy and delivery of the data to Tetra Tech, 10% of the samples (five) were randomly selected for QC analysis of taxonomic precision. Those samples were sent to an independent taxonomist for blind re-identification. Tetra Tech compared the results directly, on a spreadsheet, quantified error rates (taxonomic precision to proportion of disagreements), and implemented corrective actions as necessary. Measurement quality objectives were used for two aspects of taxonomic precision: counting and identification. Taxonomic results were considered acceptable if there was a percent difference in enumeration <5% and percent taxonomic disagreement <15%. If performance characteristics exceeded these values, corrective actions were recommended and implemented so the analyses could proceed.

3.6 PRE-DESIGN TESTING

Three samples were collected for physical characterization of sediment from Cow Pen Creek, Dark Head Cove, and Dark Head Creek. Physical characterization data were used for the hydraulics analysis and will also be used during the development of a feasibility study, if remediation is necessary. Pre-design analyses are discussed in Appendix I. Minimally disturbed sediment cores were collected from three locations: one from Dark Hard Cove (DHC-SED), one from Cow Pen Creek (CPC-SED), and one at the confluence of the two areas (CON-SED). Samples were also collected for vertical hydraulic conductivity testing.

Sediment cores extended four feet below the surface water/sediment interface and were collected in straight thin-walled Shelby tubes. Acquired cores remained upright and were handled in a manner to minimize disturbance of the sediment during transfer to Findling, Inc., Baltimore Maryland, for testing. Three vertical-permeability tests were run on each core using flex wall permeameter methods (ASTM Method D-5084-03). In addition, grain size and percent-solids analyses were performed on three intervals per core, with the intervals corresponding to the permeability tests. Table 3-1 presents the samples collected and the analysis performed.

3.7 BATHYMETRIC SURVEY

A bathymetric survey was performed in Dark Head Cove, in accessible portions of Cow Pen Creek, and at the confluence of the two water bodies. This survey documented tide-relative water depth, mud line surface topography, and solids, utilities, or obstructions that may influence investigation location selection and/or future remediation activities. Tetra Tech conducted a multi-beam echo-sounder (MBE) survey on August 3–4, 2010 with the *Research Vessel Storm*, a 21-foot jet boat configured with dual MBE systems. The Middle River bathymetry survey mapped in high detail the morphology of Dark Head Cove and, to the extent possible due to dense vegetation, Cow Pen Creek. The following equipment was used to survey the MRC project area:

- ***Survey vessel:*** a 21-foot shallow draft (≤1.5 feet) boat equipped with a data acquisition and processing lab, custom mounts for the MBE, and davit systems. The survey vessel was operated by a U.S. Coast Guard- (USCG) licensed captain
- ***RESON multi-beam sonar:*** flexible plan RESON SeaBat 7125 dual 200/400 kHz
- ***Position, heading, and motion reference system:*** Applanix position and orientation systems for marine vessels
- ***Sound-velocity profiler:*** Seabird 19
- ***Data processing:*** Hypack/Hysweep®, CARIS *HIPS*, *Fledermaus Pro*, and *ArcMap*®
- ***Secondary positioning system:*** Trimble Ag132 differential GPS receiver with USCG differential beacon

3.8 HYDRAULIC ANALYSIS

The area's hydraulic characteristics were studied to evaluate sediment stability and, in turn, the potential for contaminant mobility in Cow Pen Creek, Dark Head Cove, and Dark Head Creek

near the MRC. The *Environmental Fluids Dynamics Code* (EFDC) surface water modeling system simulated hydrodynamics and their effects on sediment stability in the three water bodies. The EFDC model was configured to simulate tidal- and runoff driven circulation in the study area and to predict maximum bed stress, which will likely be associated with spring tide conditions. The bed stress was used to evaluate the sediment bed stability or potential for erosion. If significant erosion potential was identified, the model was extended to simulate sediment transport to evaluate possible sediment bound contaminants.

3.8.1 Data Assembly and Analysis

All historical and new data for the hydrodynamic modeling based analysis of sediment stability in Cow Pen Creek, Dark Head Cove, and Dark Head Creek was assembled, processed, and analyzed. Data groups include local watershed topography and land use, water body bathymetry, sediment bed physical properties, and hydrodynamic forcing data.

3.8.2 Watershed and Runoff Modeling

Estimates of watershed and site stormwater inflows to the receiving water bodies under rainfall event conditions were calculated, including a 100-year-recurrence event. Specifically, the contributing watershed and its runoff characteristics were identified and modeled to develop storm-flow hydrographs. The site storm-drain system was represented by discharging the runoff from the portion of the watershed occupied by the site into identified storm drain discharge locations along the boundary of the receiving water body.

3.8.3 Configuration of the Hydrodynamic- and Sediment Transport Model

The EFDC-based hydrodynamic- and sediment-transport model was configured for the study area using provided bathymetry and sediment-bed physical-property data, including grain-size distribution and bulk density with depth in the bed. External, non-tidal, inflows to modeled region were based on watershed and stormwater-runoff flows from events developed during the watershed and runoff modeling. Additional forcing functions included wind-forcing consistent with the modeled storms and astronomical and storm tides. Since tide gauge and current meter data were not collected in the study area, a formal calibration was not conducted. Instead, conservative forcing functions were used to ensure that expected conditions were bounded.

Calibration of the model to known conditions permits observation of water level fluctuations recorded at the site and any nearby tide gauge stations.

3.8.4 Sediment Stability Analysis

The hydrodynamic- and sediment transport model was used to evaluate the stability of the sediment under extreme or maximum bed stress conditions incorporated into the model during the configuration and calibration phase. As previously discussed, conditions included 100-year storm inflow conditions at critical tide phases and maximum wind and storm tide conditions. Sediment erosion potential was evaluated throughout the spatial domain by comparing the model's predicted bed stresses with critical stresses for erosion and corresponding erosion rates.

Spatially variable critical stresses and erosion rates were specified based on sediment bed physical characteristics and literature or on site-specific erosion studies. Studies at sites in the Chesapeake Bay region with similar bed characteristics were referenced as necessary. In areas with stresses in excess of critical stresses, erosion mass and depth were estimated. Maximum depth of erosion in the upper end of Cow Pen creek is estimated to be on the order of 10 cm due to the 100-year event, as described in Appendix G.

Table 3-1
Sampling and Analytical Program Summary - 2010 Delineation Samples
Lockheed Martin, Middle River Complex
Middle River, Maryland

Sample Location	Sample Identifier	Top Depth (inches)	Bottom Depth (inches)	AVS/SEM	Metals	Metals (filtered)	MISC	SVOCs	VOCs	PAHs	Alkylated PAHs	PCBs	Benthic Analysis	Vertical Permeability Test
PORE WATER														
CPC-SW/PW-1	CPC-PW-VOC-1	(1)	(1)						XX					
CPC-SW/PW-2	CPC-PW-VOC-2	(1)	(1)						XX					
CPC-SW/PW-3	CPC-PW-VOC-3	(1)	(1)						XX					
DHC-SW/PW-1	DHC-PW-VOC-1	(1)	(1)						XX					
DHC-SW/PW-2	DHC-PW-VOC-2	(1)	(1)						XX					
DHC-SW/PW-3	DHC-PW-VOC-3	(1)	(1)						XX					
DHC-SW/PW-4	DHC-PW-VOC-4	(1)	(1)						XX					
DHC-SW/PW-5	DHC-PW-VOC-5	(1)	(1)						XX					
PW-01	PW-01_Composite	(1)	(1)						XX					
PW-01	PW-01_0-6	0	6			XX	XX							
PW-01	PW-01_6-18	6	18			XX	XX							
PW-01	PW-01_18-30	18	30			XX	XX							
PW-02	PW-02_0-6	0	6			XX	XX							
PW-02	PW-02_6-18	6	18			XX	XX							
PW-02	PW-02_18-30	18	30			XX	XX							
PW-03	PW-03_0-6	0	6			XX	XX			XX		XX		
PW-03	PW-03_6-18	6	18			XX	XX			XX		XX		
PW-03	PW-03_18-30	18	30			XX	XX			XX		XX		
PW-04	PW-04_0-6	0	6			XX	XX			XX		XX		
PW-04	PW-04_6-18	6	18			XX	XX			XX		XX		
PW-04	PW-04_18-30	18	30			XX	XX			XX		XX		
PW-05	PW-05_0-6	0	6			XX	XX			XX		XX		
PW-05	PW-05_6-18	6	18			XX	XX			XX		XX		
PW-05	PW-05_18-30	18	30			XX	XX			XX		XX		
PW-06	PW-06_0-6	0	6			XX	XX							
PW-06	PW-06_6-18	6	18			XX	XX							
PW-06	PW-06_18-30	18	30			XX	XX							
PW-07	PW-07_0-6	0	6			XX	XX							
PW-07	PW-07_6-18	6	18			XX	XX							
PW-07	PW-07_18-30	18	30			XX	XX							
SURFACE WATER														
CPC-SW/PW-1	CPC-SW-VOC-1	(2)	(2)						XX					
CPC-SW/PW-2	CPC-SW-VOC-2	(2)	(2)						XX					
CPC-SW/PW-3	CPC-SW-VOC-3	(2)	(2)						XX					
DHC-SW/PW-1	DHC-SW-VOC-1	(2)	(2)						XX					
DHC-SW/PW-2	DHC-SW-VOC-2	(2)	(2)						XX					
DHC-SW/PW-3	DHC-SW-VOC-3	(2)	(2)						XX					
DHC-SW/PW-4	DHC-SW-VOC-4	(2)	(2)						XX					
DHC-SW/PW-5	DHC-SW-VOC-5	(2)	(2)						XX					
DHC-SW-6	DHC-SW-VOC-6	(2)	(2)						XX					
DHC-SW-7	DHC-SW-VOC-7	(2)	(2)						XX					
DHC-SW-7	DHC-SW-VOC-7-D	(2)	(2)						XX					
STORMWATER														
MRC-SW/SD-1	MRC-SW-1	(2)	(2)		XX									
MSA-SW-1	MSA-SW-1	(2)	(2)		XX									
FISH TISSUE														
BQ1-FS	BQ1-FS-CC1	NA	NA		XX		XX					XX		
BQ1-FS	BQ1-FS-WC1	NA	NA		XX		XX					XX		
CPC-2	CPC-2-FS-CC1	NA	NA		XX		XX					XX		
DHC-2	DHC-2-FS-CC1	NA	NA		XX		XX					XX		
DHC-3	DHC-3-FS-CC1	NA	NA		XX		XX					XX		
DHC-4	DHC-4-FS-CC1	NA	NA		XX		XX					XX		
DHC-4	DHC-4-FS-CC2	NA	NA		XX		XX					XX		
DHC-4	DHC-4-FS-CC3	NA	NA		XX		XX					XX		
DHC-5	DHC-5-FS-CC1	NA	NA		XX		XX					XX		
DHC-5	DHC-5-FS-CC2	NA	NA		XX		XX					XX		
MP-FS	MP-FS-CC1	NA	NA		XX		XX					XX		
MP-FS	MP-FS-CC2	NA	NA		XX		XX					XX		
MP-FS	MP-FS-WC1	NA	NA		XX		XX					XX		
MR-FS	MR-FS-CC1	NA	NA		XX		XX					XX		
MR-FS	MR-FS-CC2	NA	NA		XX		XX					XX		

Table 3-1
Sampling and Analytical Program Summary - 2010 Delineation Samples
Lockheed Martin, Middle River Complex
Middle River, Maryland

Sample Location	Sample Identifier	Top Depth (inches)	Bottom Depth (inches)	AVS/SEM	Metals	Metals (filtered)	MISC	SVOCs	VOCs	PAHs	Alkylated PAHs	PCBs	Benthic Analysis	Vertical Permeability Test
SEDIMENT														
BOWLEY	BOWLEYS_QUARTERS-SS	0	6		XX		XX	XX				XX		
BOWLEY	BOWLEYS_QUARTERS-01	12	12		XX			XX				XX		
BOWLEY	BOWLEYS_QUARTERS-02	24	24		XX			XX				XX		
BOWLEY	BOWLEYS_QUARTERS-04	48	48		XX			XX				XX		
DOWNSTREAM	MIDDLE_RIVER_DOWNSTREAM-SS	0	6		XX		XX	XX				XX		
DOWNSTREAM	MIDDLE_RIVER_DOWNSTREAM-01	12	12		XX		XX	XX				XX		
DOWNSTREAM	MIDDLE_RIVER_DOWNSTREAM-02	24	24		XX		XX	XX				XX		
DOWNSTREAM	MIDDLE_RIVER_DOWNSTREAM-04	48	48		XX		XX	XX				XX		
MARSHY_POINT	MARSHY_POINT-SS	0	6		XX		XX	XX				XX		
MARSHY_POINT	MARSHY_POINT-01	12	12		XX			XX				XX		
MARSHY_POINT	MARSHY_POINT-02	24	24		XX			XX				XX		
MARSHY_POINT	MARSHY_POINT-04	48	48		XX			XX				XX		
MRC-SW/SD-1	MRC-SED-1	0	6		XX									
SD-100	SD-100-SS	0	6		XX			XX				XX		
SD-100	SD-100-01	12	12		XX			XX				XX		
SD-100	SD-100-02	24	24		XX			XX				XX		
SD-100	SD-100-02-AVG	24	24		XX			XX				XX		
SD-100	SD-100-02-D	24	24		XX			XX				XX		
SD-100	SD-100-04	48	48		XX			XX				XX		
SD-101	SD-101-SS	0	6	XX	XX		XX	XX			XX	XX		
SD-101	SD-101-01	12	12	XX	XX		XX	XX			XX	XX		
SD-101	SD-101-02	24	24	XX	XX		XX	XX			XX	XX		
SD-101	SD-101-04	48	48	XX	XX			XX				XX		
SD-102	SD-102-SS	0	6		XX			XX				XX		
SD-102	SD-102-01	12	12		XX			XX				XX		
SD-102	SD-102-02	24	24		XX			XX				XX		
SD-102	SD-102-04	48	48		XX			XX				XX		
SD-102	SD-102-04-AVG	48	48		XX			XX				XX		
SD-102	SD-102-04-D	48	48		XX			XX				XX		
SD-103	SD-103-SS	0	6		XX			XX				XX		
SD-103	SD-103-01	12	12		XX			XX				XX		
SD-103	SD-103-02	24	24		XX			XX				XX		
SD-104	SD-104-SS	0	6		XX			XX				XX		
SD-104	SD-104-SS-AVG	0	6		XX			XX				XX		
SD-104	SD-104-SS-D	0	6		XX			XX				XX		
SD-104	SD-104-01	12	12		XX			XX				XX		
SD-104	SD-104-02	24	24		XX			XX				XX		
SD-104	SD-104-04	48	48		XX			XX				XX		
SD-105	SD-105-SS	0	6		XX			XX				XX		
SD-105	SD-105-01	12	12		XX			XX				XX		
SD-105	SD-105-02	24	24		XX			XX				XX		
SD-105	SD-105-04	48	48		XX			XX				XX		
SD-106	SD-106-SS	0	6		XX			XX				XX		
SD-106	SD-106-01	12	12		XX			XX				XX		
SD-106	SD-106-02	24	24		XX			XX				XX		
SD-106	SD-106-04	48	48		XX			XX				XX		
SD-83	SD-83-SS	0	6		XX		XX	XX				XX		
SD-83	SD-83-01	12	12		XX		XX	XX				XX		
SD-83	SD-83-02	24	24		XX		XX	XX				XX		
SD-83	SD-83-04	48	48		XX		XX	XX				XX		
SD-84	SD-84-SS	0	6		XX		XX	XX				XX		
SD-84	SD-84-01	12	12		XX		XX	XX				XX		
SD-84	SD-84-02	24	24		XX		XX	XX				XX		
SD-85	SD-85-SS	0	6	XX	XX		XX	XX				XX		
SD-85	SD-85-01	12	12	XX	XX		XX	XX				XX		
SD-85	SD-85-02	24	24	XX	XX		XX	XX				XX		
SD-85	SD-85-04	48	48	XX	XX			XX				XX		
SD-86	SD-86-SS	0	6		XX			XX				XX		
SD-86	SD-86-01	12	12		XX			XX				XX		
SD-86	SD-86-02	24	24		XX			XX				XX		
SD-86	SD-86-04	48	48		XX			XX				XX		
SD-87	SD-87-SS	0	6	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-01	12	12	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-02	24	24	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-04	48	48	XX	XX			XX				XX		

Table 3-1
Sampling and Analytical Program Summary - 2010 Delineation Samples
Lockheed Martin, Middle River Complex
Middle River, Maryland

Sample Location	Sample Identifier	Top Depth (inches)	Bottom Depth (inches)	AVS/SEM	Metals	Metals (filtered)	MISC	SVOCs	VOCs	PAHs	Alkylated PAHs	PCBs	Benthic Analysis	Vertical Permeability Test
SD-88	SD-88-SS	0	6	XX	XX		XX	XX				XX		
SD-88	SD-88-01	12	12	XX	XX		XX	XX				XX		
SD-88	SD-88-02	24	24	XX	XX		XX	XX				XX		
SD-88	SD-88-04	48	48	XX	XX			XX				XX		
SD-89	SD-89-SS	0	6	XX	XX		XX	XX				XX		
SD-89	SD-89-01	12	12	XX	XX		XX	XX				XX		
SD-89	SD-89-02	24	24	XX	XX		XX	XX				XX		
SD-89	SD-89-04	48	48	XX	XX			XX				XX		
SD-90	SD-90-SS	0	6	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-01	12	12	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-02	24	24	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-04	48	48	XX	XX			XX				XX		
SD-91	SD-91-SS	0	6		XX			XX				XX		
SD-91	SD-91-01	12	12		XX			XX				XX		
SD-92	SD-92-SS	0	6		XX			XX				XX		
SD-92	SD-92-01	12	12		XX			XX				XX		
SD-93	SD-93-SS	0	6		XX			XX				XX		
SD-93	SD-93-01	12	12		XX			XX				XX		
SD-93	SD-93-02	24	24		XX			XX				XX		
SD-93	SD-93-04	48	48		XX			XX				XX		
SD-94	SD-94-SS	0	6		XX			XX			XX	XX		
SD-94	SD-94-01	12	12		XX			XX			XX	XX		
SD-94	SD-94-02	24	24		XX			XX			XX	XX		
SD-94	SD-94-04	48	48		XX			XX				XX		
SD-95	SD-95-SS	0	6		XX			XX				XX		
SD-95	SD-95-01	12	12		XX			XX				XX		
SD-95	SD-95-01-AVG	12	12		XX			XX				XX		
SD-95	SD-95-01-D	12	12		XX			XX				XX		
SD-95	SD-95-02	24	24		XX			XX				XX		
SD-95	SD-95-04	48	48		XX			XX				XX		
SD-96	SD-96-SS	0	6		XX			XX				XX		
SD-96	SD-96-01	12	12		XX			XX				XX		
SD-96	SD-96-01-AVG	12	12		XX			XX				XX		
SD-96	SD-96-01-D	12	12		XX			XX				XX		
SD-96	SD-96-02	24	24		XX			XX				XX		
SD-96	SD-96-04	48	48		XX			XX				XX		
SD-97	SD-97-SS	0	6		XX			XX			XX	XX		
SD-97	SD-97-01	12	12		XX			XX			XX	XX		
SD-97	SD-97-02	24	24		XX			XX			XX	XX		
SD-97	SD-97-04	48	48		XX			XX				XX		
SD-98	SD-98-SS	0	6		XX			XX				XX		
SD-98	SD-98-01	12	12		XX			XX				XX		
SD-98	SD-98-02	24	24		XX			XX				XX		
SD-98	SD-98-04	48	48		XX			XX				XX		
SD-99	SD-99-SS	0	6	XX	XX		XX	XX				XX		
SD-99	SD-99-01	12	12	XX	XX		XX	XX				XX		
SD-99	SD-99-02	24	24	XX	XX		XX	XX				XX		
SD-99	SD-99-04	48	48	XX	XX			XX				XX		
BENTHIC														
BN-CPC-1	BN-CPC-1												XX	XX
BN-CPC-2	BN-CPC-2												XX	XX
BN-DHC-1	BN-DHC-1												XX	XX
BN-DHC-2	BN-DHC-2												XX	XX
BN-DHC-3	BN-DHC-3												XX	XX
BN-DHC-4	BN-DHC-4												XX	XX
BN-DHC-5	BN-DHC-5												XX	XX
BN-MP-1	BN-MP-1												XX	XX
BN-BQ-1	BN-BQ-1												XX	XX
BN-MRC-1	BN-MRC-1												XX	XX

Table 3-1
Sampling and Analytical Program Summary - 2010 Delineation Samples
Lockheed Martin, Middle River Complex
Middle River, Maryland

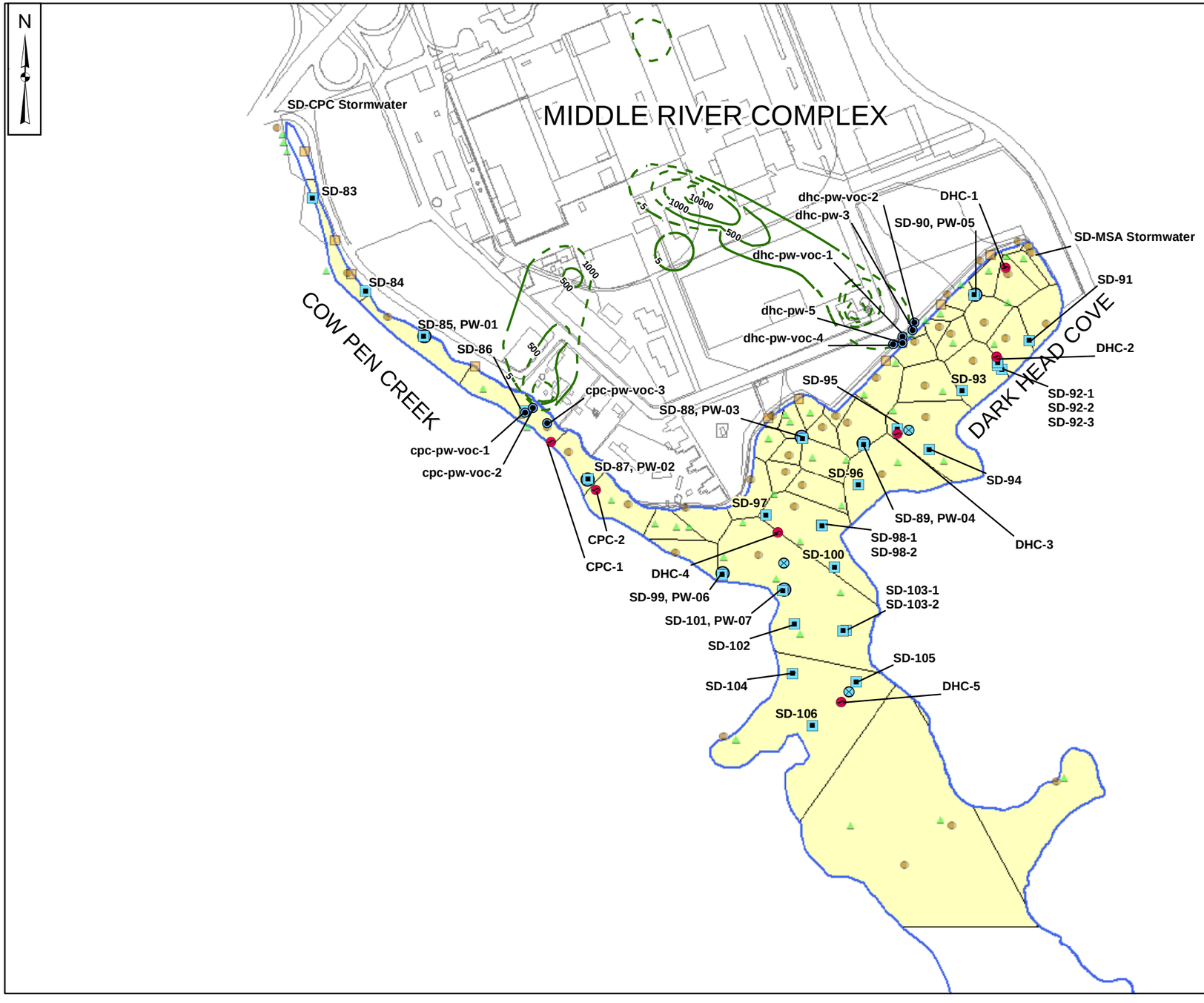
Sample Location	Sample Identifier	Top Depth (inches)	Bottom Depth (inches)	AVS/SEM	Metals	Metals (filtered)	MISC	SVOCs	VOCs	PAHs	Alkylated PAHs	PCBs	Benthic Analysis	Vertical Permeability Test
PRE-DESIGN TESTING														
DHC-SED	DHC-SED													XX
CPC-SED	CPC-SED													XX
CON-SED	CON-SED													XX

NA - Not applicable
XX - Analysis performed. VOCs - Volatile organic chemicals SVOCs - Semivolatile organic chemicals.
PAH - Polycyclic aromatic hydrocarbons. PCBs - Polychlorinated biphenyls. M - Metals
MF - Dissolved metals AVS/SEM - Acid-volatile sulfides/simultaneously extracted metals.
Misc - Selected sediments were analyzed for total organic carbon, organo-tin compounds. Selected pore water samples were analyzed for dissolved organic carbon, hardness, and pH. Fish samples were analyzed for percent lipids.
I) In-situ pore water samples were collected just below the surface water/sediment interface.
2) Surface water samples were collected approximately 1 foot above the mud line.

Table 3-1
Sampling and Analytical Program Summary - 2010 Delineation Samples
Lockheed Martin, Middle River Complex
Middle River, Maryland

Sample Location	Sample Identifier	Top Depth (inches)	Bottom Depth (inches)	AVS/SEM	Metals	Metals (filtered)	MISC	SVOCs	VOCs	PAHs	Alkylated PAHs	PCBs	Benthic Analysis	Vertical Permeability Test
SD-103	SD-103-01	12	12		XX			XX				XX		
SD-103	SD-103-02	24	24		XX			XX				XX		
SD-104	SD-104-SS	0	6		XX			XX				XX		
SD-104	SD-104-SS-AVG	0	6		XX			XX				XX		
SD-104	SD-104-SS-D	0	6		XX			XX				XX		
SD-104	SD-104-01	12	12		XX			XX				XX		
SD-104	SD-104-02	24	24		XX			XX				XX		
SD-104	SD-104-04	48	48		XX			XX				XX		
SD-105	SD-105-SS	0	6		XX			XX				XX		
SD-105	SD-105-01	12	12		XX			XX				XX		
SD-105	SD-105-02	24	24		XX			XX				XX		
SD-105	SD-105-04	48	48		XX			XX				XX		
SD-106	SD-106-SS	0	6		XX			XX				XX		
SD-106	SD-106-01	12	12		XX			XX				XX		
SD-106	SD-106-02	24	24		XX			XX				XX		
SD-106	SD-106-04	48	48		XX			XX				XX		
SD-83	SD-83-SS	0	6		XX		XX	XX				XX		
SD-83	SD-83-01	12	12		XX		XX	XX				XX		
SD-83	SD-83-02	24	24		XX		XX	XX				XX		
SD-83	SD-83-04	48	48		XX		XX	XX				XX		
SD-84	SD-84-SS	0	6		XX		XX	XX				XX		
SD-84	SD-84-01	12	12		XX		XX	XX				XX		
SD-84	SD-84-02	24	24		XX		XX	XX				XX		
SD-85	SD-85-SS	0	6	XX	XX		XX	XX				XX		
SD-85	SD-85-01	12	12	XX	XX		XX	XX				XX		
SD-85	SD-85-02	24	24	XX	XX		XX	XX				XX		
SD-85	SD-85-04	48	48	XX	XX			XX				XX		
SD-86	SD-86-SS	0	6		XX			XX				XX		
SD-86	SD-86-01	12	12		XX			XX				XX		
SD-86	SD-86-02	24	24		XX			XX				XX		
SD-86	SD-86-04	48	48		XX			XX				XX		
SD-87	SD-87-SS	0	6	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-01	12	12	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-02	24	24	XX	XX		XX	XX			XX	XX		
SD-87	SD-87-04	48	48	XX	XX			XX				XX		
SD-88	SD-88-SS	0	6	XX	XX		XX	XX				XX		
SD-88	SD-88-01	12	12	XX	XX		XX	XX				XX		
SD-88	SD-88-02	24	24	XX	XX		XX	XX				XX		
SD-88	SD-88-04	48	48	XX	XX			XX				XX		
SD-89	SD-89-SS	0	6	XX	XX		XX	XX				XX		
SD-89	SD-89-01	12	12	XX	XX		XX	XX				XX		
SD-89	SD-89-02	24	24	XX	XX		XX	XX				XX		
SD-89	SD-89-04	48	48	XX	XX			XX				XX		
SD-90	SD-90-SS	0	6	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-01	12	12	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-02	24	24	XX	XX		XX	XX			XX	XX		
SD-90	SD-90-04	48	48	XX	XX			XX				XX		
SD-91	SD-91-SS	0	6		XX			XX				XX		
SD-91	SD-91-01	12	12		XX			XX				XX		
SD-92	SD-92-SS	0	6		XX			XX				XX		
SD-92	SD-92-01	12	12		XX			XX				XX		
SD-93	SD-93-SS	0	6		XX			XX				XX		
SD-93	SD-93-01	12	12		XX			XX				XX		
SD-93	SD-93-02	24	24		XX			XX				XX		
SD-93	SD-93-04	48	48		XX			XX				XX		
SD-94	SD-94-SS	0	6		XX			XX			XX	XX		
SD-94	SD-94-01	12	12		XX			XX			XX	XX		
SD-94	SD-94-02	24	24		XX			XX			XX	XX		
SD-94	SD-94-04	48	48		XX			XX				XX		
SD-95	SD-95-SS	0	6		XX			XX				XX		
SD-95	SD-95-01	12	12		XX			XX				XX		
SD-95	SD-95-01-AVG	12	12		XX			XX				XX		
SD-95	SD-95-01-D	12	12		XX			XX				XX		
SD-95	SD-95-02	24	24		XX			XX				XX		
SD-95	SD-95-04	48	48		XX			XX				XX		
SD-96	SD-96-SS	0	6		XX			XX				XX		
SD-96	SD-96-01	12	12		XX			XX				XX		
SD-96	SD-96-01-AVG	12	12		XX			XX				XX		
SD-96	SD-96-01-D	12	12		XX			XX				XX		
SD-96	SD-96-02	24	24		XX			XX				XX		
SD-96	SD-96-04	48	48		XX			XX				XX		
SD-97	SD-97-SS	0	6		XX			XX			XX	XX		
SD-97	SD-97-01	12	12		XX			XX			XX	XX		
SD-97	SD-97-02	24	24		XX			XX			XX	XX		
SD-97	SD-97-04	48	48		XX			XX				XX		
SD-98	SD-98-SS	0	6		XX			XX				XX		
SD-98	SD-98-01	12	12		XX			XX				XX		
SD-98	SD-98-02	24	24		XX			XX				XX		
SD-98	SD-98-04	48	48		XX			XX				XX		
SD-99	SD-99-SS	0	6	XX	XX		XX	XX				XX		
SD-99	SD-99-01	12	12	XX	XX		XX	XX				XX		
SD-99	SD-99-02	24	24	XX	XX		XX	XX				XX		
SD-99	SD-99-04	48	48	XX	XX			XX				XX		
BENTHIC														
BN-CPC-1	BN-CPC-1												XX	XX
BN-CPC-2	BN-CPC-2												XX	XX
BN-DHC-1	BN-DHC-1												XX	XX
BN-DHC-2	BN-DHC-2												XX	XX
BN-DHC-3	BN-DHC-3												XX	XX
BN-DHC-4	BN-DHC-4												XX	XX
BN-DHC-5	BN-DHC-5												XX	XX
BN-MP-1	BN-MP-1												XX	XX
BN-BQ-1	BN-BQ-1												XX	XX
BN-MRC-1	BN-MRC-1												XX	XX
PRE-DESIGN TESTING														
DHC-SED	DHC-SED													XX
CPC-SED	CPC-SED													XX
CON-SED	CON-SED													XX

NA - Not applicable
XX - Analysis performed. VOCs - Volatile organic chemicals SVOCs - Semivolatile organic chemicals.
PAH - Polycyclic aromatic hydrocarbons. PCBs - Polychlorinated biphenyls. M - Metals
MF - Dissolved metals AVS/SEM - Acid-volatile sulfides/simultaneously extracted metals.
Misc - Selected sediments were analyzed for total organic carbon, organo-tin compounds. Selected pore water samples were analyzed for dissolved organic carbon, hardness, and pH. Fish samples were analyzed for percent lipids.
I) In-situ pore water samples were collected just below the surface water/sediment interface.
2) Surface water samples were collected approximately 1 foot above the mud line.



TETRA TECH

Figure 3-1
Sample Locations
August 2010
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Sample Locations- 2005
- Sample Locations- Nov 2008
- Stormwater Outfall Locations
- Delineation Sample
- Age Dating Sample
- Porewater Sample (VOCs)
- Benthic Sample Location
- TCE Isoconcentration (UG/L)
- Inferred
- Middle River Complex
- Water

500 250 0 500
Feet

Drawn By: MP 12/15/10
Checked By:
Approved By:

Contract Number: 112IC01633

Map Document: (K:\GProject\middle_river\Maps\Figure 3-1_sediment_sample_locations 121510.mxd)
12/15/2010 -- 4:24:27 PM



TETRA TECH

Figure 3-2
Reference Locations
August 2010
Middle River, Maryland

Legend

Reference Sample

0 2,000 4,000 6,000
Feet

Drawn By: MP 11/17/10
Checked By:
Approved By:

Contract Number: 112IC01633

Map Document: (K:\GProject\middle_river\Maps\Figure 3-2 Sediment Reference Locations.mxd)
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Section 4
Investigation Results

The objectives of the 2010 field investigation were to finalize the characterization of Dark Head Cove and Cow Pen Creek with respect to environmental conditions and to establish the basis for risk assessment and, if necessary, for evaluation of cleanup goals and potential remediation alternatives. To meet these objectives, a variety of chemical, environmental, geotechnical, and physical data were collected. This section presents the results of the 2010 field investigation.

4.1 SEDIMENT CHEMISTRY

Chemical characterization had the aim of providing analytical data that could be used to refine understanding of the horizontal and vertical distribution chemicals of potential concern (COPC) in sediment. Thus, the 2010 investigation focused on areas lacking sufficient data from previous investigations. Sediment samples were collected in 2010 from 24 site locations and three reference locations, and samples were collected from each location at four depths: 0–6, 6–18, 18-30, and 30–52 inches below the surface water/sediment interface. Sediment samples were analyzed for polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals. In addition, seven sediment samples were analyzed for acid volatile sulfides/simultaneously extracted metals (AVS/SEM) to assess chemical bioavailability.

4.1.1 Background Locations

The dataset used to represent background regional conditions in this report consists of sediment collected from two previously-sampled background locations (SD-1 and SD-78) and sediment collected in 2010 from two sampling locations (Marshy Point and Bowleys Quarters). SD-1 and SD-78 were collected from the upper portion of Cow Pen Creek, up gradient of the Middle River Complex's (MRC's) first outfall (slightly south of Eastern Boulevard), and are well upstream of the tidally influenced portion of the creek (see Figure 2-2). Sediment data were collected at SD-1 in 2005, and at SD-78 in 2008. The Marshy Point and Bowley's Quarters locations are discussed below.

Sediment samples were collected in 2010 from three locations distant from possible MRC influences to determine background conditions reflective of an urbanized coastal area (see Figure 3-2). Benthic invertebrate samples were also collected from the same three reference locations for comparison to site samples. The three reference locations consisted of one area with little to no shoreline development (Marshy Point), and two areas with typical regional waterfront development (Bowleys Quarters and Middle River).

Marshy Point is located approximately 4 miles east-northeast of the MRC and Bowleys Quarters is located approximately 2.6 miles east-southeast of the MRC. The third background reference location sampled in 2010 (Middle River) was approximately 4,000 feet south of MRC. Sediment analytical data indicate that concentrations of some metals in the surface and 6–18 inch depths for this sample (identified in Appendix C as "Middle River Downstream") are elevated relative to sediment concentrations in the Bowleys Quarters and Marshy Point samples. Whether the metals concentrations in this sample are due to MRC sources or other sources is unclear; the important point is that data from this sample suggest that this location might not represent regional-background conditions. Therefore, data from this location were excluded from the background data set.

In summary, the data set representing background reference-conditions herein consists of samples from four locations: Bowleys Quarters, Marshy Point, and sampling locations SD-1 and SD-78. None of the four background locations are near any known industrial point-sources of contamination, and all had substrates that were similar to the sample locations near the MRC site.

4.1.2 Extent of Sediment Impacts

Sediment analytical data were compared to ecological screening-values and to human health screening-levels (Tables 4-1A and 4-1B). Under U.S. Environmental Protection Agency (USEPA) guidelines, freshwater ecological screening values are applicable where the salinity is less than 1 part per thousand (ppt), saltwater screening values apply where salinity is greater than 10 ppt, and if the salinity is between 1–10 ppt, the more stringent of fresh or saltwater screening values should be used. The salinity of the overlying surface water in Cow Pen Creek and Dark Head Cove where sediment samples were collected in 2010 range from 2.4–3.9 ppt. Therefore, the ecological screening values for sediment used herein are the lower of the USEPA Region III

Freshwater Sediment-Screening Benchmarks (USEPA, 2006a) or USEPA Region III *Marine Sediment-Screening Benchmarks* (USEPA, 2006b). Additional sources of ecological screening values were used when USEPA Region III ecological screening values were not available.

The human health sediment-screening levels are based on USEPA regional screening-levels (RSLs) for residential soil (USEPA, 2010). To account for the reduced human exposure to sediment, soil-screening criteria are 10 times those typically used for residential soil. The 10 times adjustment is appropriate and conservative because human exposure to submerged sediment is anticipated to be much less frequent than human exposure to residential soil. This approach has been consistently used and accepted in USEPA Region III.

Sediment data are provided in Tables 4-2 through 4-9 and are grouped according to the four depth intervals (0–6, 6–18, 18–30, and 30–52 inches below the surface water/sediment interface). Tables 4-3, 4-5, 4-7, and 4-9 summarize the analytical results for chemicals detected at least once in either the 2010 or historical samples. Tables 4-2, 4-4, 4-6, and 4-8 provide the analytical results for individual sediment samples.

Figures 4-1 through 4-11 summarize the horizontal and vertical extent of cadmium, chromium, copper, lead, mercury, zinc, total Aroclors, total PAHs, and benzo(a)pyrene equivalent (BaPEq) concentrations in sediment. These chemicals represent possible site COPC to humans and/or ecological receptors in MRC sediments (Tetra Tech, 2009). These figures also display Thiessen polygons around the sampling locations, the boundaries of which define the area closest to each point relative to all other points or physical site features (e.g., shoreline). Therefore, sampling locations close to one another have smaller polygons and locations with samples farther apart have larger polygons.

The chemical concentration assigned to each polygon is the concentration of the sample taken within the polygon boundary. The Thiessen figures were used to determine which samples and areas exceed criteria and background concentrations. Background concentrations are shown in the legends of Figures 4-1 through 4-11 (where available) and consist of the maximum detected concentrations in the background sediment samples for each depth interval.

PAH concentrations are typically evaluated by converting them to BaPEq concentrations, then comparing the result to human health risk based values. The BaPEq is the sum of PAH

concentrations after applying toxicity equivalence factors to each PAH compound. Figures 4-10 and 4-11 summarize BaPEq concentrations compared to 1E-05 (i.e., a one–in-100,000) risk based values. Total Aroclor concentrations are shown in Figure 4-8 in relation to 1,000 µg/kg, which is a Toxic Substances Control Act soil cleanup level for high occupancy areas (USEPA, 2005).

Figures 4-1 through 4-7 and Figure 4-9 summarize chemical concentrations compared to ecological benchmarks for sediment invertebrates. The ecological benchmarks consist of threshold effects concentrations (TECs) and probable effects concentrations (PECs) derived by MacDonald *et al.* (2000), or threshold effects levels (TELs) and probable effects levels (PELs) derived by MacDonald *et al.* (1996). The Thiessen figures also include comparisons to twice the PEC (or PEL) and five times the PEC (or PEL). The TEC and TEL are the concentrations below which adverse effects on sediment invertebrates are not expected, whereas PECs and PELs are defined as concentrations above which adverse effects to sediment invertebrates are probable (MacDonald *et al*., 1996, 2000). The significance of exceeding ecological benchmarks will be discussed in the ecological risk assessment (ERA).

4.1.2.1 Inorganics (Metals)

Several metals were detected in sediment at concentrations in excess of ecological screening values, but concentrations of most metals tend to be less than or slightly greater than regional background-concentrations. Thus, Thiessen polygons were generated for the metals posing the highest potential of risk to ecological receptors: cadmium, chromium, copper, lead, mercury, and zinc (Figures 4-1 through 4-6). Ecological risk due to other metals in sediment is minor, and will be discussed in greater detail in the ERA.

Cadmium concentrations in surface sediment are highest in Cow Pen Creek and along the shoreline of MRC in Dark Head Cove near Outfalls 05 and 08 (Figure 4-1). The area near Outfall 05 is also the area with the greatest concentrations of total Aroclors (see Section 4.1.2.2). Several samples had cadmium concentrations in excess of the PEL (4.21 milligram per kilogram [mg/kg]). Cadmium concentrations in Dark Head Cove sediments tend to be higher in the >6-18 inch and >18–30 inch intervals than in surface sediments, and the highest concentrations are found in these intervals. The highest cadmium concentrations in the >18–30 inch interval were away from the MRC Dark Head Cove and Dark Head Creek shorelines.

Elevated chromium concentrations (Figure 4-2) follow a similar pattern to that of cadmium, with the highest concentrations in the two middle depth intervals of Dark Head Cove. Several samples had chromium concentrations in excess of the PEC (111 mg/kg). The highest chromium concentration in surface sediment was 699 mg/kg in SD-43. The highest concentration in the >6-18 inch interval was 2,460 mg/kg (SD-46), the highest in the >18–30 inch interval was 2,060 (SD-86) and the highest in the >30-52 inch interval was 597 mg/kg (SD-105).

Copper concentrations follow a different pattern than cadmium and chromium, with concentrations decreasing with increasing depth (Figure 4-3). Most samples with concentrations exceeding the PEL were in surface sediments either south of Outfall 05 or in Dark Head Creek. No copper detections exceeded the PEL in the two deepest intervals.

The highest lead concentration was greatly elevated, at 31,500 mg/kg in surface sediment sample SD-84, from the upper reaches of Cow Pen Creek. Most surface sediment concentrations were less than background (Figure 4-4). Most of the elevated (i.e., greater than the PEL and background) lead concentrations were in the two middle depth intervals, and tended to be in Dark Head Cove and Dark Head Creek. In the deepest interval, lead concentrations exceeded the PEL in one sample (SD-105 at 163 mg/kg).

Most mercury concentrations were less than background in surface sediment samples (Figure 4-5). Mercury concentrations are highest in the >6–18 inch and >18–30 inch intervals, with some concentrations in the >18–30 inch interval in Dark Head Cove being more than twice the PEL. In the deepest interval (>30–52 inches), mercury concentrations exceeded the PEL in sample SD-105 in Dark Head Creek, which is the same sampling location where copper and lead were highest at this depth.

Zinc concentrations in surface sediment were similar to those in the >6–18 inch interval; concentrations in these two intervals exceeded the PEC in few samples, with PEC exceedances in samples near the MRC shoreline (Figure 4-6). More samples exceeded the zinc PEC in the >18-30 inch interval than in the shallower intervals. The deepest interval (>30–52 inches) had the fewest PEC exceedances but the highest overall zinc concentration at 4,370 mg/kg in SD-88.

In summary, the highest concentrations of metals were generally found in the samples collected from the >6–18 inch and >18–30 inch intervals, which indicates that the sediment with higher

concentrations is being buried under cleaner sediments and the highest concentrations are probably due to historical releases. Some exceptions were observed in Cow Pen Creek, which is to be expected because the deposition rate is probably lower in the creek than in the cove. This conclusion is supported by the age-dating analysis discussed in Section 4.3 and the hydraulic analysis discussed in Section 4.6, which indicates that the highest bed stresses are in Cow Pen Creek. Cadmium and chromium generally had the greatest concentrations with respect to their sediment guidelines, as compared to the other metals detected.

4.1.2.2 PCBs

Three Aroclors (Aroclor-1248, -1254, and -1260) were detected in sediment. Aroclor-1254 was detected in only one of 101 surface sediment samples and was not detected at other sediment depths. Aroclor-1248 was not detected in surface sediment nor in the >30–52 inch interval. It was detected in two of 71 samples at >6–18 inches and in one of 68 samples at >18–30 inches. Therefore, although positive detections of all Aroclors were summed to derive concentrations of total Aroclors, total Aroclor concentrations predominately represent concentrations of Aroclor-1260.

Total Aroclor concentrations were highest in surface sediments, and decrease with increasing depth (Figure 4-7). Surface sediment concentrations were highest in the middle of Dark Head Cove and adjacent to the shoreline of the MRC complex (i.e., near Outfall 05). The maximum surface sediment concentration was 54,000 micrograms per kilogram (µg/kg) (SD-9) and the next highest was 20,000 µg/kg (SD-27). The maximum total Aroclor concentration in subsurface sediments in the >6–18 inch depth interval was 14,000 µg/kg at SD-58 near Outfall 05.

Total Aroclor concentrations in only one sample in the >18–30 inch interval exceeded 1,000 µg/kg (SD-89 at 1,300 µg/kg), and all concentrations in the >30–52 inch interval were less than 1,000 µg/kg. Table 4-10 summarizes concentrations of PCBs reported in the literature for various locations in the Chesapeake Bay region. The studies used to generate Table 4-10 include areas of elevated PCBs, so some of the values in Table 4-10 do not represent background concentrations; the table is included for informational purposes only. PCBs were not detected at the reference locations for this investigation.

4.1.2.3 Semivolatile Organics

Sediment samples collected in 2005 were analyzed for semivolatile organic compounds (SVOCs). No SVOCs were detected in sediment above human health screening criteria. Although a few SVOCs exceed ecological criteria, ecological risks are minor and the 2005 data indicate that PAHs are the primary SVOCs of interest in terms of frequency of detection and the magnitude of the concentrations detected. As a result, sediment samples collected in 2008 and 2010 were analyzed only for PAHs and not for other SVOCs.

The highest concentrations of total PAHs (used to evaluate potential ecological risk) were in samples collected along the shoreline of MRC and in Dark Head Cove (Figure 4-9). In surface sediment, the highest PAH concentrations were in samples from the eastern portion of Dark Head Cove (near Martin State Airport [MSA]) and in the middle of the cove adjacent to the MRC property (near Outfall 05). Elevated PAH concentrations (greater than the PEC of 22,800 µg/kg for total PAHs) were detected in four surface sediment samples, nine samples from the >6-18 inch interval, eight samples from the >18–30 inch interval, and in no samples from the >30–52 inch interval.

PAH concentrations tend to be higher in the middle two depth intervals (>6–18 inches and >18-30 inches) than in surface sediment. PAH concentrations in most samples from the top two intervals were less than the maximum background concentration, as indicated by the cross-hatched polygons in Figure 4-9. Total PAH concentrations in nearly all sediment samples from the deepest sediment interval are less than screening criteria.

Concentrations of BaPEq tend to show the same trends as were observed for total PAHs. The BaPEq concentrations depicted in Figures 4-10 and 4-11 are compared to human health risk based concentrations (RBCs) specifically calculated for a recreational-user scenario hypothetically exposed to the sediment. The 700 µg/kg RBC assumes that the recreational user is exposed even as a small child. The 1,600 µg/kg RBC assumes that the recreational user is not exposed as a small child (exposure is assumed to occur as an adolescent and adult). The benchmarks represent the one-in-100,000 cancer risk level.

As displayed in Figures 4-10 and 4-11, BaPEq concentrations calculated for several polygons primarily in the shallower zones exceed these benchmarks. Concentrations exceeding the

1,600 µg/kg benchmark are most frequently reported for polygons abutting the MRC shoreline. This pattern of concentrations is as expected given the fact that PAHs are typically bound to sediment particles which would tend to settle out quickly once introduced into a surface water body.

4.1.2.4 Volatile Organics

Sediment samples collected in 2005 were analyzed for volatile organic compounds (VOCs), whereas sediment samples collected in 2008 and 2010 were not analyzed for VOCs because the 2005 data indicate that VOCs do not pose significant risks. Most VOCs were detected infrequently in sediment, and most detections were less than screening benchmarks. Methyl tert-butyl ether (MTBE) was the most frequently detected VOC, being detected in 24 of 41 surface sediment samples in 2005 at concentrations ranging from 3–9 µg/kg. The human health screening benchmark for direct contact with MTBE is 39,000 µg/kg.

No VOCs were detected in sediment above human-health screening criteria. For ecological receptors, carbon disulfide is the only VOC with a screening level exceedance. Detected concentrations of carbon disulfide in surface sediment exceeded the ecological screening value in two samples (SD-9 and SD-29). Carbon disulfide can occur naturally in sediments since it is a natural product of anaerobic biodegradation.

4.1.3 Bioavailability Parameters

4.1.3.1 Acid Volatile Sulfides/Simultaneously Extracted Metals

AVS/SEM analysis was conducted on sediment samples from seven locations. At each location, all four depth intervals were analyzed for AVS/SEM. AVS binds, on a molar basis, some cationic metals of environmental concern. In sediment samples where the AVS molar concentrations are greater than SEM molar concentrations, the SEM metals are not expected to be bioavailable or directly toxic to benthic invertebrates. However, in sediment samples where the AVS molar concentrations are less than SEM molar concentrations, the SEM metals are not necessarily bioavailable or directly toxic to benthic invertebrates because other parameters such as total organic carbon (TOC) may reduce the bioavailability and toxicity of metals in the sediment. Anoxic sediments typically have greater AVS concentrations than sediments that are well

aerated. The 2010 SEM analysis included the metals cadmium, chromium, copper, lead, nickel, silver, and zinc.

The results of the AVS/SEM analyses are presented in Tables 4-2 through 4-9. In general, the concentrations of AVS were higher than SEM in most samples. AVS was not detected in one sample. The AVS/SEM data will be evaluated further in the ERA.

4.1.3.2 *Ex situ* Porewater

Sediment porewater was collected to determine the equilibrium concentrations of COPC in porewater both horizontally and vertically near the MRC to determine whether the chemicals in the sediment are bioavailable. These data will be used to evaluate the potential for risk posed to sediment dwelling organisms by estimating the steady state concentrations of COPC in porewater at areas with elevated COPC concentrations in sediment. Porewater was extracted at the laboratory from core depths corresponding to the top three intervals sampled for chemical compounds in sediments (0–6, >6–18, and >18–30 inches).

Porewater data are provided in Tables 4-11 through 4-16 and are grouped according to the three depth intervals 0–6, >6–18, and >18–30 inches below the surface water/sediment interface). Tables 4-11, 4-13, and 4-15 provide the porewater analytical results for individual samples. Tables 4-12, 4-14, and 4-16 provide a summary of the analytical data.

Porewater concentrations of various metals (arsenic, cadmium, and selenium) and PAHs exceeded surface water ecological screening values at all three intervals in one or more samples, and Aroclor-1260 concentrations exceeded surface water ecological screening values in all porewater samples in which it was detected (Tables 4-10, 4-12, and 4-14). Porewater concentrations of lead exceeded surface water ecological screening values in one interval. The significance of these exceedances will be discussed in the ERA.

4.2 ALKYLATED PAHs

Nineteen sediment samples were submitted to META from the MRC site. META received 15 sediment samples from the MRC site on August 19, 2010, and four additional MRC sediment samples on August 24, 2010. Two stormwater runoff samples and one stormwater sediment sample were also received on October 15, 2010. These samples were analyzed for hydrocarbon

fingerprints and an expanded list of mono-aromatic hydrocarbons (MAHs) and PAHs. This section summarizes the analytical findings. A copy of the complete report, including tables and graphs, is in Appendix D.

All of the samples contained various amounts of MAHs and PAHs in patterns consistent with mixtures of pyrogenic and petrogenic sources. Distinguishing features of these samples include relatively more high molecular weight PAHs (HPAHs) than MAHs and low molecular weight PAHs; relatively low total PAH concentrations (0.011–107 mg/kg); late eluting unresolved complex mixtures, petroleum biomarkers, high molecular weight, and odd carbon normal-alkane distributions; and molecular sulfur and elevated perylene in some samples. These features are consistent with general background in urban sediments. Urban background includes PAHs from many sources, including smoke from natural and industrial fires, motor vehicle exhaust, roadway paving and driveway sealants, construction debris and fill materials, and petroleum spills, among others. Often more than one of these sources contributes to an urban background signature.

Samples SD-90-02, collected at the northeastern side of Dark Head Cove between Outfalls 07 and 09 and SD-87-02 approximately one third of the way up Cow Pen Creek, contained total PAH concentrations (107 mg/kg and 103 mg/kg, respectively) somewhat higher than expected for urban background. The PAH patterns are pyrogenic, not petroleum derived, although both samples contained severely weathered high molecular-weight petroleum residuals consistent with urban background. The PAH ratios suggest that the principal PAH source is combustion related and is more similar to urban background surface soil than to tar sources derived from coal tar and coal tar products, based on a comparison to META's archive of reference samples.

Various PAH ratios for the samples were calculated to provide an indication of potential source(s). As discussed above for samples SD-90-02 and SD-87-02, the PAH ratios indicate that much of the PAH mass is pyrogenically derived, even though there are indications of petrogenic materials in the samples. Common historical sources of pyrogenic PAHs include manufactured-gas plants (MGP) and carbureted-water gas plants (CWG), neither of which has been present at the site. The fluoranthene/pyrene (Fl/Py) ratios of all the samples are higher than what is typically found for MGP and CWG plants, but lower than those typical of commercial coal tars (from byproduct coke plants) and their derivatives, such as road tar and creosote. Although the Fl/Py ratios of the sediment samples are in the range normally associated with

some coal tar residues and materials containing such residues, such as some older building materials and some paving materials, the benzofluorenes/methylpyrene (BF/MP) ratios are somewhat lower than expected for coal tars and coal tar products and wastes from former gas plants.

When compared with PAH ratios from a large set of urban-background surface soil samples collected and analyzed by META, the MRC sediments cluster more closely to most urban-background surface soil samples than the tar samples (or even more so than the petroleum reference samples). The higher concentration samples (SD-90-02 and SD-87-02) also plot near the urban-background surface soil samples. These samples could contain some contribution from pavement, sealants, or other tar derived products. Sources may include roadways, creosote treated pilings, and runoff from MSA.

(Fl+Py/PP HPAHs) can help distinguish between background sources of PAHs and tar derived PAHs. Most MRC sediment samples have Fl+Py/PP HPAHs ratios lower than most of the tar reference samples. Sample SD-94-01 appears to be an outlier, likely due to the very low concentrations of PAHs detected in that sample.

Two samples of water and one sediment sample were analyzed at a later date in association with a stormwater event at the site. The two stormwater samples did not contain PAHs at concentrations high enough to interpret. The stormwater sediment sample did contain PAHs at low concentrations. The stormwater sediment sample and its laboratory duplicate plot similarly to the cove sediment samples and other PAH background samples, suggesting the PAHs originated from similar urban runoff sources.

4.3 AGE DATING

Sediment chronology is based on the analysis and interpretation of the radioactive nuclides lead-210 (Pb-210) and cesium-137 (Cs-137) in samples taken at various depths in sediment cores (Appendix E). The analytical results are used to derive sedimentation rates and calendar dates in the sediments. The methods are described in a paper by Hewitt W. Jeter (Jeter, 2000).

Lead-210 is a natural radioactive form of lead produced as atmospheric fallout by the radioactive decay of natural radon-222 (Rn-222) gas. This nuclide accompanies sediments that accumulate at the bottoms of natural water systems. Under conditions of steady deposition, profiles of Pb-210

concentration in sediments (after subtracting the constant Pb-210 background of the sediment itself) often decrease logarithmically with increasing depth because of radioactive decay (with a half-life of 22.3 years).

To derive a sedimentation rate, transverse sections are taken at intervals from a sediment core and are analyzed for Pb-210. The background concentration is subtracted to derive the "excess Pb-210" caused by atmospheric fallout. The logarithms of these excess Pb-210 concentrations are plotted against depth, and regression lines are fitted to straight portions of the plots. The slopes of these lines are used to calculate sedimentation rates. When base 10 logarithms are used and the depths are expressed in centimeters, the sedimentation rate in centimeters per year equals -0.01352/slope. Calendar dates at various depths in the core can then be calculated from the sedimentation rate using a known reference date, such as the core collection date at the sediment surface.

Cesium-137 is a fission product that is a component of fallout derived from atmospheric testing of nuclear weapons. The Cs-137 method is fundamentally different from the Pb-210 method in that it provides date "markers" rather than concentration slopes that can be interpreted. The first appearance of Cs-137 in sediments generally marks the year 1954. Another marker is often found in the form of a concentration maximum at the year 1963, caused by an increase and then a decrease in nuclear testing.

To derive a sedimentation rate, transverse sections are taken at intervals from a core and analyzed for Cs-137. The resulting concentrations are plotted against depths and the markers are identified visually. A sedimentation rate can be calculated as the depth of the 1954 marker divided by the time interval between core collection date and the year 1954. Another sedimentation rate can be calculated as the depth of the 1963 marker divided by the time interval between the core collection date and the year 1963. Still another sedimentation rate can be calculated as the difference in depths between the two markers divided by the nine-year interval between 1954–1963. These calculations may yield different sedimentation rates because they represent different time intervals and different depths. Calendar dates at different depths in the core can be calculated from the sedimentation rates using known reference points, such as the marker depths and years, or the core collection date at the sediment surface.

The suite of sediment samples was analyzed for Pb-210 and Cs-137 at the laboratory and the results were plotted and used to recommend the analysis of six additional sections from each core to refine the chronology study. These samples, plus two additional quality control samples, were sent to the laboratory. The second suite of samples was analyzed at the laboratory and the results added to the plots for each core.

A sediment chronology report was written for each core. The laboratory completed a full Level 4 documentation of the analyses and sent it to Tetra Tech on November 10, 2010. Data plots used in the chronology interpretation of Dark Head Cove, Cow Pen Creek, and Dark Head Creek below confluence of Dark Head Cove and Cow Pen Creek cores, as well as measurements of Pb-210 and Cs-137 and details of the analyses, are in Appendix E.

Sedimentation rates derived by the three chronology methods described above are shown below:

- ***Dark Head Cove inferred sedimentation rate:***
  - Pb-210 chronology 0.99 centimeter per year (cm/yr)
  - Cs-137 chronology (1963 maximum) 0.57 cm/yr
  - Cs-137 chronology (1954 horizon) 0.80 cm/yr
- ***Dark Head Creek inferred sedimentation rate:***
  - Pb-210 chronology 1.7 cm/yr
  - Cs-137 chronology (1963 maximum) 1.1 cm/yr
  - Cs-137 chronology (1954 horizon) 1.1 cm/yr
- ***Cow Pen Creek mouth inferred sedimentation rate:***
  - Pb-210 chronology 0.51 cm/yr
  - Cs-137 chronology (1963 maximum) 0.34 cm/yr
  - Cs-137 chronology (1954 horizon) 0.30 cm/yr

Age profiles for the three sediment cores, calculated at 5 cm depth intervals, are included in Appendix E. Ages at intermediate depths can be calculated using the equations in Appendix E, however, extrapolating ages beyond the depths shown would involve assumptions of constant sedimentation rates beyond the range of useful chronology measurements.

The highest sedimentation rate is found in Dark Head Creek, followed by Dark Head Cove, and then Cow Pen Creek. These results are consistent with what would be expected for these types of

water bodies. Dark Head Creek is deep, receives flow from multiple sources and has a large surface area. Dark Head Cove has a deep and large confined surface area, whereas Cow Pen Creek is shallow, narrow, and confined, with a smaller overall surface area. The intervals where impacts have typically been found in these water bodies support the findings of the age dating and hydraulic analysis (Section 4.6). Contaminants were found at deeper intervals at locations with higher sedimentation rates, as mentioned in Section 4.1.2. In Cow Pen Creek (where the deposition rate is lowest and sediment scouring is highest), contaminants were typically found at shallower intervals than in the other two water bodies.

The data plots for Dark Head Cove and Dark Head Creek indicate that the Pb-210 data are closely grouped around the logarithmic regression lines, and the Cs-137 profiles clearly show the 1963 maxima and the 1954 horizons. Chronology calculations for these cores may be appropriate. The Cow Pen Creek plots are less regular, resulting in less certainty in the chronology interpretation. Pb-210 data at 18–20, 22–24, and 26–28 cm depths are not plotted because the concentrations are near the supported concentration of 0.44 picocuries per gram (pCi/g) dry. This suggests that steady sedimentation is periodically interrupted, perhaps through transport by water flow. The Cs-137 profile for this core also has poorer definition of a 1963 maximum than the other cores. The high bottom shear at this location (discussed further in Section 4.6, "Hydraulic Analysis") is consistent with interruption of steady deposition by sediment transport processes. Bottom shear could also lead to lower net sedimentation rates because of periodic removal of sediments by water flow.

The regularity of Pb-210 plots for Dark Head Cove and Dark Head Creek implies an absence of sedimentation interruption in the first 50 or 60 centimeter (cm) of these cores, respectively. Deeper levels cannot be interpreted because they are below the level of useful chronology measurements. The irregular profiles at the Cow Pen Creek location indicate interruption of steady sedimentation, caused by water flow and/or other processes.

4.4 ANALYSIS OF GROUNDWATER DISCHARGE OF VOCS

The objective of *in situ* porewater and surface water sampling was to quantify sediment porewater and surface water concentrations of VOCs that may be present as a consequence of the VOC groundwater plumes discharging into adjacent surface water bodies at the MRC. Several VOCs were detected in samples from three locations in Cow Pen Creek and five locations in

Dark Head Cove. All VOC concentrations detected in porewater are less than Safe Drinking Water Act (SDWA) maximum contaminant levels (MCLs), when available, and less than RSLs for tap water when a SDWA MCL was not available. Table 4-17 shows positive detections of chemicals from Cow Pen Creek.

The concentration of carbon disulfide exceeded the ecological freshwater surface-water criterion (0.92 µg/L) in one sample (0.95 µg/L at CPC-PW-1) from Cow Pen Creek. Carbon disulfide was not detected at the other two locations in Cow Pen Creek. 2-Butanone was detected in all three samples from Cow Pen Creek, whereas other VOCs were detected in only one of the three samples. Chlorinated VOCs (1,1-dichloroethane, cis-1,2-dichloroethene, and vinyl chloride) were detected in sample CPC-PW-3. Summary statistics for samples from Cow Pen Creek are presented in Table 4-18.

No chemical concentrations reported for samples collected from Dark Head Cove exceed ecological criteria (see Table 4-19). 2-Butanone and acetone were detected in all five samples from Dark Head Cove. Carbon disulfide was detected in three samples and cis-1,2-dichloroethene in two. 4-Methyl-2-pentanone, methylene chloride, tetrachloroethene, toluene, and trichloroethene (TCE) were detected in single samples from Dark Head Cove at concentrations well below ecological criteria. Summary statistics for samples from Dark Head Cove are presented in Table 4-20. Human health criteria are presented in Tables 4-17 and 4-19 solely as points of reference, as the ecological criteria are generally the more relevant criteria for porewater data.

No chlorinated VOCs were detected in any surface water sample co-located with the porewater VOC samples (Table 4-21). Very low concentrations of acetone and 2-butanone were detected in the co-located surface water samples. DHC-SW-VOC-1 had a 2-butanone concentration of 0.65 microgram per liter (µg/L) that was J-qualified, indicating an estimated result. Results in all other samples were reported as non-detected. Acetone was identified in seven surface water samples at concentrations ranging from 2.3–12 µg/L. All positive detections were J-qualified; two samples were reported as blank contaminated (CPC-SW-VOC-2, CPC-SW-VOC-3), and the remaining samples were reported as non-detected. Whereas VOCs were detected in porewater at low concentrations, the discharge of impacted groundwater to surface water is limited due to the

low groundwater flux to surface water caused by the low permeability soil at the site and very slow groundwater flow rates.

As part of preparation of the *Groundwater Response Action Plan* (RAP) (to be submitted under separate cover), extensive groundwater modeling was conducted to determine groundwater and contaminant flow patterns at the site. Modeled scenarios include active remediation and monitored natural-attenuation. One of the model outputs for each scenario was a determination of the mass of contaminants discharged to Dark Head Cove and Cow Pen Creek. For example, for a no action or monitored natural-attenuation scenario, the total mass of TCE discharged to the surface water was calculated as just 7.5 pounds over a 100-year period.

The maximum yearly flux to the surface water was just 0.03 pounds for the eastern TCE area and 0.02 pounds for the western TCE area. Inputting a flux 100 times higher than that determined in the model still results in surface water concentrations well below the relevant Maryland standard for TCE (300 μg/L for surface water bodies not used for drinking water) (*Code of Maryland Regulations* 26.08.03.02-2). That is also less than the federal Ambient Water Quality Criteria (AWQC) of 30 μg/L for those surface water bodies. The water-quality modeling calculations are in the groundwater RAP. The results of the porewater VOC analyses described above confirm those modeling results.

4.5 STORMWATER EVALUATION

Stormwater sediment was sampled to evaluate whether stormwater may be transporting land based contaminants to sediments in Cow Pen Creek and Dark Head Cove. The locations sampled were selected to capture flow into Cow Pen Creek and Dark Head Cove unrelated to the MRC. The sediment sample collected during the rainstorm (MRC-SED-1) was analyzed for metals and alkylated PAHs. Two surface water samples (one co-located with the sediment sample) were also analyzed for metals and alkylated PAHs. The concentrations of metals detected in the sediment sample are presented in Table 4-2 and surface water samples are presented in Table 4-21 (surface water table). Alkylated PAHs were evaluated in the *Environmental Forensic Report MRC Sediment and Storm Event Sample* (see Appendix D).

Concentrations of chromium, copper, iron, manganese, and nickel in the stormwater sediment sample exceed ecological screening criteria. Concentrations of chromium and copper in the

stormwater sediment sample are similar to concentrations in an off-site downstream Middle River surface sediment sample and several site sediment samples. Iron and manganese were not analyzed for in other site samples. The concentration of nickel was lower than the concentration in several background samples. The concentrations of metals in the surface water samples were generally low.

The stormwater sediment sample contained low concentrations of PAHs with a total PAH concentration of 1.47 mg/kg. The stormwater sediment sample contained a wide-ranging distribution of parent and alkylated PAHs with 4-, 5-, and 6-ring parent PAHs most abundant. PAHs often are classified in sub-groups based on their structures. PAHs that consist of fused benzene rings with no substitutions, such as aliphatic side chains or oxygen containing functional groups attached are called "parent" PAHs.

When aliphatic side chains are added to a particular parent PAH, such as naphthalene, the resulting compounds are termed alkylated PAHs. Thus, methylnaphthalene, ethylnaphthalene, trimethylnaphthalene, and many others are alkylated PAHs of the parent, naphthalene. The relative amount of alkylated PAHs to their respective parent is determined by several factors, including the temperature and pressure of formation. Hence, petroleum contains substantially more alkylated PAHs than parent PAHs, whereas coal tar and combustion sources contain more parent than alkylated PAHs.

PAHs were only detected at low concentrations in the co-located surface water sample (MRC-SW-1). PAHs were not detected in the other surface water sample (MSA-SW-1). PAHs in the surface water samples could not be characterized due to insufficient PAH concentrations. The *Environmental Forensic Report* suggests that the stormwater sediment sample and other sediment samples analyzed from the site contain PAHs that originated from similar urban runoff sources (see Appendix D).

4.6 HYDRAULIC ANALYSIS

A modeling analysis estimated the stability of bed sediment in Cow Pen Creek, Dark Head Cove, and aspects of Dark Head Creek. The analysis considered two extreme events that might affect sediment in the study area: high rainfall in the Cow Pen Creek and Dark Head Creek watersheds

and a historical storm surge and accompanying period of high wind. This section summarizes that analysis. The complete analysis, including figures and tables, is in Appendix G.

The *Environmental Fluid Dynamic Code* (Hamrick, 1992; Tetra Tech, 2007; USEPA, 2007) was used for the modeling analysis, which involved determining bed stresses during simulated events. Model forcing-functions include runoff into Cow Pen Creek and Dark Head Cove, tidal water surface elevation at the mouth of Dark Head Creek, and wind forcing over the entire model domain. The high rainfall runoff event is based on a 100 year annual-recurrence interval 24-hour rainfall of 8.7 inches (24.7 cm) resulting in a 49 cubic feet per second (cfs) (1.39 cubic meter per second [cms]) flow into Cow Pen Creek and a 66 cfs (1.88 cms) flow into Dark Head Cove. A spring tide range of 0.48 (National Oceanic and Atmospheric Administration [NOAA], 2010) meters was assumed to occur during the rainfall event.

Maximum sediment bed stresses for this event were evaluated. Bed stresses are less than 0.1 Newton per square meter (N/m^2) over most of the study area except for the upstream area of Cow Pen Creek, where maximum stresses reach 4 N/m^2. Field investigations of critical bed stresses for the erosion of cohesive sediments in the Chesapeake Bay region (Maa, *et al*., 1998, 2002, 2008) indicate that 0.1 N/m^2 is a lower boundary for the critical erosion stress. Sand and noncohesive-behaving silt beds are also stable at stresses below 0.1 N/m^2 (Garcia, 2008).

The second event is based on the historical storm surge and winds associated with Hurricane Isabella in September 2003. Surface water elevation at the NOAA monitoring station in Baltimore Harbor was used for the tidal boundary condition. The wind forcing is based on observed wind speed and direction at Baltimore Washington International Airport. Stresses are less than 0.1 N/m^2 over much of the area, with high stresses again occurring in the upstream area of Cow Pen Creek. Bands of high stress occur along the southwest shoreline of Dark Head Cove and in Dark Head Creek.

To determine the relative importance of the wind forcing, the surge simulation was repeated without wind stresses associated, with only the surge below 0.03 N/m^2 over the entire area, indicating that high wind speeds in excess of 16 meters per second (36 miles per hour) are primarily responsible for the higher stresses. Since local sheltering effects are not accounted for, the wind-induced stresses can be viewed as conservative. The general conclusion of the analysis is that the sediment bed in the area of interest is stable, except for the upstream area of Cow Pen

Creek. Limited potential for long-term contaminate accumulation in the area exists since this area is susceptible to erosion during high rainfall-generated flow events,

4.7 BATHYMETRIC SURVEY

The Middle River bathymetry survey mapped in high detail the morphology of Dark Head Cove and, to the extent possible due to dense vegetation, Cow Pen Creek. Water depths in the survey area range from 0.5–13.7 and average 8.8-U.S.-survey feet (as referenced to NAVD88). These data, which are gridded at 3 feet by 3 feet, provide surface water/sediment elevations for the site for use in sediment transport modeling. The surface water/sediment elevations can also support dredge- or capping-design efforts, design dredge cuts, and to calculate dredge and capping volumes. Obstructions protruding off the bottom can be identified in the data, including docks, aquatic vegetation and boat ramps. A copy of the bathymetric survey including data, figures, and images is included in Appendix F.

4.8 BENTHIC MACROINVERTEBRATE SAMPLING

Benthic macroinvertebrate samples were collected from two locations in Cow Pen Creek, five in Dark Head Cove (Figure 3-1), and three reference locations. The three reference locations (Marshy Point, Bowleys Quarters, and Middle River) were described in Section 4.1.1 and are shown in Figure 3-2. Five Petite Ponar® sediment samples were collected at each location.

The samples were sieved and sorted at the laboratory, where benthic macroinvertebrates were identified and counted. A suite of benthic assemblage-level characteristics (i.e., metrics) were calculated for each of the ten sampling locations. Biological metrics from the seven site locations were compared to those from the reference locations to determine the relative health (biological condition) of different site locations. The metrics are based on the *Chesapeake Bay Benthic Index of Biotic Integrity* for oligohaline estuaries. The results of the macroinvertebrate sampling are in Appendix H and will be evaluated in the ERA.

4.9 PRE-DESIGN TESTING

Tetra Tech completed bench scale testing of sediment-dewatering technologies and associated dewatering and performance characteristics as a starting point for future analysis of remedial alternatives if remediation is ultimately required. The testing evaluated whether sediment-tube dewatering technology is feasible for Cow Pen Creek and Dark Head Cove sediments.

4.9.1 Sediment Dewatering Test Objectives

Sediments may be dredged from Cow pen Creek and Dark Head Cove as part of possible future remediation. Dredged sediments will require dewatering before being transferred to a landfill. Dewatering sediment reduces its volume, which can reduce transport and disposal costs. Treatability testing focused on passive sludge-dewatering technology using a geotextile fabric. The objectives associated with the sediment-dewatering-bag test (SDBT) and associated analytical and geotechnical tests were to:

- define optimal chemical conditioning agent(s) that can enhance sediment dewatering in a sediment tube/bag
- represent sediment dewatering on a pilot scale
- define sediment dewatering rates and dewatering cycle time based upon test data evaluation
- quantify passage of sediment solids (suspended solids) through the geotextile container (tube or bag) containing the dredged sediment
- define dewatered sediments final total-solids concentration (achievable percent-solids) and determine if geotextile containers can generate a final product that meets client dewatering goals
- define sediment-porewater chemical characterization to develop management alternatives
- define physical and geotechnical characteristics of dewatered sediment
- define which chemical solidification/stabilization (CSS) agent (fly ash, Portland cement, kiln dust, or slaked lime) can produce a sediment matrix with sufficient strength for landfill disposal and define the CSS-agent dosages needed to achieve the required matrix strength

Relatively few geotextile types are designed and commercially available for sediment dewatering applications. TenCate Geosynthetics' Geotube GT500 dewatering fabric is one of the few identified specifically for and proven effective in dewatering dredged sediments. GT500 geotextile container material is a specially engineered dewatering geotextile manufactured from high tenacity polypropylene multifilament and monofilament yarns.

4.9.2 Sediment-Dewatering-Bag Test Procedures

The following phases and associated test procedures were implemented during sediment-dewatering-bag testing to accomplish the test objectives:

1. *Preliminary sediment-conditioning evaluation testing:* Testing procedures outlined in Appendix I, Section 4.1.1.

2. *Confirmation sediment-conditioning evaluation testing:* Testing procedures outlined in Appendix I, Section 4.2.1.

3. *Sediment-dewatering-bag testing:* Testing procedures outlined in Appendix I, Section 5.1.

4. *CSS testing:* Testing procedures outlined in Appendix I, Section 6.1.

4.9.3 Sediment-Dewatering-Bag Test Results

SDBT results/conclusions/recommendations generated during the study are as follows:

- Of the various polymers tested during the preliminary and confirmation sediment conditioning evaluations, the dual polymer system of Solve 426 and Solve 127 produced the optimum results for coagulating and flocculating sediment slurry solids. Optimal dosages for these polymers were: (1) Solve 426 = 33 ml/gallon (milliliters per gallon) sediment slurry at 1% polymer solution; (2) Solve 127 = 47.2 mls/gallon sediment slurry at 1% polymer solution. In this dual polymer system, Solve 426 is added to the sediment slurry before adding Solve 127.

- Sediment dewatering with the GT500 geotextile fabric produced dewatered sediment cakes with acceptable solids content (CON-SED = 36%; CPC-SED = 49%; DHC-SED = 49%), which passed paint filter tests and released minimal solids into the porewater generated. The sediment solids-content recorded throughout dewatering for the tested sediments were as follows:

Sediment identification	*In situ* solids (%)	Conditioned slurry (%)	Final dewatered solids (%)
CON-SED	35.3	10	36
CPC-SED	42.9	8	49
DHC-SED	47.3	8	49

- Sediment classifications based on geotechnical results obtained throughout dewatering were as follows:

Sediment identification	*In situ* solids	Conditioned slurry	Final dewatered solids
CON-SED	Fat Clay	Elastic Silt	Elastic Silt
CPC-SED	Elastic Silt	Elastic Silt with Sand	Elastic Silt with Sand
DHC-SED	Clayey Sand	Elastic Silt with Sand	Sandy Lean Clay

- Porewater generated during the SDBTs was relatively clear with respect to solids and turbidity but still contained constituents at levels exceeding applicable USEPA AWQC.

Therefore, porewater may require treatment on-site before it can be discharged back to CPC or DHC, or require some other management approach such as disposal of the porewater at a publicly owned treatment work or a commercial waste-management facility.

- In most cases, filtered parameter concentrations (dissolved fraction) were less than their total concentrations, particularly in relation to metals concentrations. In some cases, the resulting filtered concentration was reduced below AWQC. Therefore, on-site pretreatment of porewater with filtration may be an option before discharging the porewater back to Cow Pen Creek or Dark Head Cove.

- The results of the CSS evaluations identified Portland cement as the CSS agent demonstrating the greatest unconfined compressive (UCC) strength in each of the three sediments. As would be expected, the highest dose (CSS agent: wet-sediment ratio) added the most strength to the sediment matrix. The unconfined compression strength of a specimen tends to increase with an increase in density and solids content. The highest UCC test recorded during the study was 11.2 pounds per square inch in the 21-day specimen for the CON-SED sediment, using 15% Portland cement. Both slaked lime and fly ash added some strength to the sediment matrices, but not as much as that demonstrated by the Portland cement. Kiln dust additions produced specimens that did not harden and remained soft to the point that the geotechnical laboratory declared the specimen unacceptable for testing. Therefore, this CSS agent (at least as a standalone agent) may be eliminated from any potential further evaluation.

The favorable results generated during the SDBT testing suggest that the dual polymer system (Solve 426 and Solve 127) and sediment-dewatering tubes constructed with GT500 geotextile fabric should be considered for dewatering sediment before disposal, if required.

Porewater chemical characterization should be compared to the existing Cow Pen Creek and Dark Head Cove water quality to determine whether an untreated discharge might degrade existing water quality. Additional CSS tests using higher CSS-agent-to-sediment ratios should be considered if greater sediment-matrix strength is required for landfill disposal. Possible candidates for further evaluation would include Portland cement, slaked lime, and possibly fly ash.

Table 4-1A

Sediment Screening Levels
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Ecological Screening Value (ESV)[1]	Adjusted USEPA Regional Screening Level (RSL) for Residential Soil[2]
Volatile Organic Compounds (ug/kg)		
1,3-DICHLOROBENZENE	4,430	NA
1,4-DICHLOROBENZENE	599	24,000 C
2-BUTANONE	25,710[3]	28,000,000 N
ACETONE	60,030[3]	61,000,000 N
CARBON DISULFIDE	0.851	820,000 N
CHLOROBENZENE	8.42	290,000 N
CHLOROMETHANE	17,800[3]	120,000 N
CIS-1,2-DICHLOROETHENE	1,050[4]	780,000 N
ISOPROPYLBENZENE	86	2,100,000 N
METHYL TERT-BUTYL ETHER	NA	430,000 C
NAPHTHALENE	176	36,000 C
SEC-BUTYLBENZENE	880[3]	NA
TERT-BUTYLBENZENE	1,210[3]	NA
TOLUENE	2,880[3]	5,000,000 N
Semivolatile Organic Compounds (ug/kg)		
1,2-DICHLOROBENZENE	16.5	1,900,000 N
1,3-DICHLOROBENZENE	4,430	NA
1,4-DICHLOROBENZENE	599	24,000 C
1-METHYLNAPHTHALENE	20.2[5]	220,000 C
2-METHYLNAPHTHALENE	20.2	310,000 N
ACENAPHTHENE	6.7	3,400,000 N
ACENAPHTHYLENE	5.9	3,400,000 N[6]
ANTHRACENE	57.2	17,000,000 N
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150 C
BAP EQUIVALENT-POSITIVE RESULTS	NA	150 C
BENZO(A)ANTHRACENE	108	1,500 C
BENZO(A)PYRENE	150	150 C
BENZO(B)FLUORANTHENE	NA	1,500 C
BENZO(G,H,I)PERYLENE	170	1,700,000 N[7]
BENZO(K)FLUORANTHENE	240	15,000 C
BIS(2-ETHYLHEXYL)PHTHALATE	180	350,000 C
BUTYL BENZYL PHTHALATE	10,900	2,600,000 C
CARBAZOLE	NA	NA
CHRYSENE	166	150,000 C
DIBENZO(A,H)ANTHRACENE	33	150 C
DIBENZOFURAN	415	78,000 N
FLUORANTHENE	423	2,300,000 N
FLUORENE	77.4	2,300,000 N
INDENO(1,2,3-CD)PYRENE	17	1,500 C

Table 4-1A

Sediment Screening Levels
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Ecological Screening Value (ESV)[1]	Adjusted USEPA Regional Screening Level (RSL) for Residential Soil[2]
Semivolatile Organic Compounds (Continued) (ug/kg)		
NAPHTHALENE	176	36,000 C
PHENANTHRENE	204	1,700,000 N[7]
PYRENE	195	1,700,000 N
TOTAL PAHS	1,610	NA
PCBs (ug/kg)		
AROCLOR-1248	59.8[8]	2200 C
AROCLOR-1254	59.8[8]	1,100 N[9]
AROCLOR-1260	59.8[8]	2,200 C
TOTAL AROCLOR	59.8	2,200 C[10]
Inorganics (mg/kg)		
ANTIMONY	2	31 N
ARSENIC	9.8	3.9 C
BARIUM	130[14]	15,000 N
BERYLLIUM	NA	160 N
CADMIUM	0.99	70 N
CHROMIUM	43.4	120,000 N[11]
COBALT	50	23 N
COPPER	31.6	3,100 N
HEXAVALENT CHROMIUM	43.4	2.9 C[12]
IRON	20000	55000 N
LEAD	35.8	400
MANGANESE	460	1800 N
MERCURY	0.18	23 N[13]
MOLYBDENUM	NA	390 N
NICKEL	22.7	1,500 N
SELENIUM	2	390 N
SILVER	1	390 N
THALLIUM	21.3[15]	NA
VANADIUM	57[14]	390 N
ZINC	121	23,000 N
Miscellaneous Organics (ug/kg)		
DIBUTYLTIN	NA	NA
Miscellaneous Parameters (%)		
PERCENT SOLIDS	NA	NA
Miscellaneous Parameters (mg/kg)		
TOTAL ORGANIC CARBON	NA	NA
AVS/SEM (UMOLES/G)		
ACID VOLATILE SULFIDE	NA	NA
CADMIUM	NA	NA
CHROMIUM	NA	NA

Table 4-1A

Sediment Screening Levels
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Ecological Screening Value (ESV)[(1)]	Adjusted USEPA Regional Screening Level (RSL) for Residential Soil[(2)]
AVS/SEM (Continued) (UMOLES/G)		
COPPER	NA	NA
LEAD	NA	NA
NICKEL	NA	NA
SILVER	NA	NA
ZINC	NA	NA

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).
2 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.
3 - TCEQ Ecological Benchmarks for Sediment. January 2006.
4 - Value for trans-1,2-dichloroethene used as a surrogate for cis-1,2-dichloroethene.
5 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.
6 - The value for acenapthene is used as a surrogate for acenaphthylene.
7 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
8 - Value for Total PCBs used as a surrogate for Aroclor-1248, Aroclor-1254, and Aroclor-1260.
9 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.
10 - The value is for high risk PCBs.
11 - The value is for trivalent chromium.
12 - The value is for hexavalent chromium.
13 - The value is for mercury, inogranic salts.
14 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
15 - Value is for marine sediment.

Definitions:
C = Carcinogenic
N = Non-carcinogenic
NA = Not applicable or not available

Table 4-1B
Pore Water and Surface Water Screening Levels
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Ecological Screening Value (ESV)[1]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[2]	USEPA Maximum Contaminant Level (MCL)[3]
Volatiles (ug/L)			
1,1-DICHLOROETHANE	47	24 C	NA
2-BUTANONE	14000	7100 N	NA
4-METHYL-2-PENTANONE	170	2000 N	NA
ACETONE	1500	22000 N	NA
CARBON DISULFIDE	0.92	1000 N	NA
CIS-1,2-DICHLOROETHENE	590[4]	73 N	70
METHYLENE CHLORIDE	98.1	48 C	5
TETRACHLOROETHENE	111	1.1 C	5
TOLUENE	2	2300 N	1000
TRICHLOROETHENE	21	20 C	5
VINYL CHLORIDE	930	0.16 C	2
Polycyclic Aromatic Hydrocarbons (ug/L)			
ACENAPHTHENE	5.8	2,200 N	NA
ANTHRACENE	0.012	11,000 N	NA
BENZO(A)ANTHRACENE	0.018	0.29 C	NA
BENZO(A)PYRENE	0.015	0.029 C	0.2
BENZO(B)FLUORANTHENE	NA	0.29 C	NA
BENZO(G,H,I)PERYLENE	NA	1,100 N[5]	NA
BENZO(K)FLUORANTHENE	NA	2.9 C	NA
CHRYSENE	NA	29 C	NA
FLUORANTHENE	0.04	1,500 N	NA
FLUORENE	3	1,500 N	NA
INDENO(1,2,3-CD)PYRENE	NA	0.29 C	NA
NAPHTHALENE	1.1	1.4 C	NA
PHENANTHRENE	0.4	1,100 N[5]	NA
PYRENE	0.025	1,100 N	NA
PCBs (ug/L)			
AROCLOR-1260	0.000074[6]	0.34 C	0.5
Inorganics (ug/L)			
ANTIMONY	30	15 N	6
ARSENIC	5	0.45 C	10
BARIUM	4	7,300 N	2000
CADMIUM	0.25	18 N	5
CHROMIUM	85[7]	55,000 N[8]	100
COBALT	23	11 N	NA
COPPER	9	1,500 N	1300
IRON	300	26,000 N	NA
LEAD	2.5	NA	15
MANGANESE	120	880	NA
MOLYBDENUM	73	180 N	NA
NICKEL	52	730 N	NA
SELENIUM	1	180 N	50
VANADIUM	20	180 N	NA
ZINC	120	11,000 N	NA
Miscellaneous Parameters (mg/L)			
DISSOLVED ORGANIC CARBON	NA	NA	NA
HARDNESS	NA	NA	NA
Miscellaneous Parameters (S.U.)			
PH	NA	NA	NA

Table 4-1B
Pore Water and Surface Water Screening Levels
Lockheed Martin, Middle River Complex
Middle River, Maryland

Notes:

1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).

2 - Screening criteria for pore water/surface water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water/surface water, the screening criteria presented in the table for pore water/surface water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the pore water/surface water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water/surface water are set equal to the RSL for tap water.

3 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).

4 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.

5 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.

6 - The value for total PCBs is used as a surrogate for Aroclor-1260.

7 - The value is for total chromium.

8 - The value is for trivalent chromium.

Definitions:

C = Carcinogenic

N = Non-carcinogenic

NA = Not applicable or not available

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		BOWLEY BOWLEYS_QUARTERS-SS 20100821 NORMAL SD BACKGROUND SS 0 6	DOWNSTREAM MIDDLE_RIVER_DOWNSTREAM- 20100820 NORMAL SD OFFSITE SS 0 6	MARSHY_POINT MARSHY_POINT-SS 20100821 NORMAL SD BACKGROUND SS 0 6	MRC-SW/SD-1 MRC-SED-1 20101014 NORMAL SD UPGRADIENT STORMWATER SS 0 6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	5.7 UJ	**11 J**	6 UJ	NA
ACENAPHTHYLENE	5.9	3400000	N[7]	6.7 UJ	**23 J**	7.2 UJ	NA
ANTHRACENE	57.2	17000000	N	29 J	31 J	18 J	NA
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	78.3	99.9	12.5	NA
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	75.0	97.8	5.4	NA
BENZO(A)ANTHRACENE	108	1500	C	53 J	67 J	24 J	NA
BENZO(A)PYRENE	150	150	C	49 J	64 J	6.3 UJ	NA
BENZO(B)FLUORANTHENE	NA	1500	C	96 J	150 J	30 J	NA
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	93 J	120 J	6.3 UJ	NA
BENZO(K)FLUORANTHENE	240	15000	C	12 UJ	7.6 UJ	13 UJ	NA
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	68 J	80 J	32 J	NA
DIBENZO(A,H)ANTHRACENE	33	150	C	6.5 UJ	4.2 UJ	7 UJ	NA
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	140 J	130 J	67 J	NA
FLUORENE	77.4	2300000	N	23 J	12 J	8.3 UJ	NA
INDENO(1,2,3-CD)PYRENE	17	1500	C	**110 J**	**120 J**	6.5 UJ	NA
NAPHTHALENE	176	36000	C	51 J	36 J	50 J	NA
PHENANTHRENE	204	1700000	N[8]	82 J	65 J	54 J	NA
PYRENE	195	1700000	N	100 J	140 J	49 J	NA
TOTAL PAHS	1610	NA		894	1049	324	NA
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.8 UJ	3 UJ	3 UJ	NA
AROCLOR-1254	59.8 [9]	1100	N[10]	4.2 UJ	4.5 UJ	4.5 UJ	NA
AROCLOR-1260	59.8 [9]	2200	C	4.2 UJ	4.5 UJ	4.5 UJ	NA
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		BOWLEY BOWLEYS_QUARTERS-SS 20100821 NORMAL SD BACKGROUND SS 0 6	DOWNSTREAM MIDDLE_RIVER_DOWNSTREAM- 20100820 NORMAL SD OFFSITE SS 0 6	MARSHY_POINT MARSHY_POINT-SS 20100821 NORMAL SD BACKGROUND SS 0 6	MRC-SW/SD-1 MRC-SED-1 20101014 NORMAL SD UPGRADIENT STORMWATER SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.48 J	**2.1 J**	0.43 J	1.9
ARSENIC	9.8	3.9	C	**13.5 J**	**14.1 J**	**11.2 J**	2.9
BARIUM	130 [15]	15000	N	NA	NA	NA	57.5
BERYLLIUM	NA	160	N	1.6 J	1.8 J	1.7 J	0.26
CADMIUM	0.99	70	N	0.95 J	**2.5 J**	0.84 J	0.12 J
CHROMIUM	43.4	120000	N[12]	39.3 J	**119 J**	36.3 J	**122**
COBALT	50	23	N	NA	NA	NA	4.8
COPPER	31.6	3100	N	**110 J**	**224 J**	**67.1 J**	**255**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	**33700**
LEAD	35.8	400		**104 J**	**173 J**	**67.1 J**	5.8
MANGANESE	460	1800	N	NA	NA	NA	**518**
MERCURY	0.18	23	N[14]	**0.43 J**	**0.72 J**	**0.25 J**	0.034 J
MOLYBDENUM	NA	390	N	NA	NA	NA	4
NICKEL	22.7	1500	N	**44.2 J**	**41.5 J**	**46.8 J**	**32.3**
SELENIUM	2	390	N	2 J	2 J	**2.1 J**	0.26 J
SILVER	1	390	N	0.59 J	**1.4 J**	0.47 J	0.057 J
THALLIUM	21.3 [16]	NA		0.24 J	0.25 J	0.27 J	0.023 B
VANADIUM	57 [15]	390	N	NA	NA	NA	13.4
ZINC	121	23000	N	**327 J**	**372 J**	**248 J**	53.4
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		35200 J	30800 J	34300 J	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-1 SD-1-031705 20050317 NORMAL SD BACKGROUND SS 0 6	SD-78 SD-78-SS 20081117 NORMAL SD BACKGROUND SS 0 6	SD-2 SD-2-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-3 SD-3-031705 20050317 NORMAL SD NORMAL SS 0 6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		6.1 U	NA	12 U	5.9 U
1,4-DICHLOROBENZENE	599	24000	C	6.1 U	NA	12 U	5.9 U
2-BUTANONE	25710 [4]	28000000	N	12 U	NA	24 U	12 U
ACETONE	60030 [4]	61000000	N	12 J	NA	19 B	7.1 J
CARBON DISULFIDE	0.851	820000	N	6.1 U	NA	12 U	5.9 U
CHLOROBENZENE	8.42	290000	N	6.1 U	NA	12 U	5.9 U
CHLOROMETHANE	17800 [4]	120000	N	12 U	NA	24 U	12 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	6.1 U	NA	12 U	5.9 U
ISOPROPYLBENZENE	86	2100000	N	6.1 U	NA	12 U	5.9 U
METHYL TERT-BUTYL ETHER	NA	430000	C	6.1 U	NA	12 U	5.9 U
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	6.1 U	NA	12 U	5.9 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	410 U	NA	800 U	390 U
1,3-DICHLOROBENZENE	4430	NA		410 U	NA	800 U	390 U
1,4-DICHLOROBENZENE	599	24000	C	410 U	NA	800 U	390 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	1700 U	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	**30 J**	1700 U	800 U	390 U
ACENAPHTHENE	6.7	3400000	N	410 U	1700 U	800 U	390 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**180 J**	1700 U	800 U	390 U
ANTHRACENE	57.2	17000000	N	**140 J**	**490 J**	800 U	**100 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**911**	**1973**	**616**	**736**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**706**	**188**	**172**	**541**
BENZO(A)ANTHRACENE	108	1500	C	**650**	1700 U	**140 J**	**410**
BENZO(A)PYRENE	150	150	C	**530**	1700 U	140 J	**420**
BENZO(B)FLUORANTHENE	NA	1500	C	800	1200 J	180 J	530
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**320 J**	1700 U	800 U	**300 J**
BENZO(K)FLUORANTHENE	240	15000	C	190 J	**1100 J**	800 U	170 J
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**730 J**	NA	**290 J**	**370 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	2500	NA	800 U	390 U
CARBAZOLE	NA	NA		410 U	NA	800 U	390 U
CHRYSENE	166	150000	C	**730**	**1600 J**	**190 J**	**450**
DIBENZO(A,H)ANTHRACENE	33	150	C	410 U	1700 U	800 U	390 U
DIBENZOFURAN	415	78000	N	410 U	NA	800 U	390 U
FLUORANTHENE	423	2300000	N	**1000**	**3200**	310 J	**750**
FLUORENE	77.4	2300000	N	54 J	**210 J**	800 U	390 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**280 J**	**550 J**	800 U	**250 J**
NAPHTHALENE	176	36000	C	410 U	1700 U	800 U	390 U
PHENANTHRENE	204	1700000	N[8]	**550**	**2800**	100 J	**450**
PYRENE	195	1700000	N	**1200**	**4200 K**	**270 J**	**880**
TOTAL PAHS	1610	NA		**6654**	**15350**	1330	**4710**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	41 U	21 U	80 U	39 U
AROCLOR-1254	59.8 [9]	1100	N[10]	41 U	21 U	80 U	39 U
AROCLOR-1260	59.8 [9]	2200	C	41 U	21 U	**160**	53
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	**160**	53

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-1 SD-1-031705 20050317 NORMAL SD BACKGROUND SS 0 6	SD-78 SD-78-SS 20081117 NORMAL SD BACKGROUND SS 0 6	SD-2 SD-2-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-3 SD-3-031705 20050317 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.54 B	0.12 U	1.1 B	0.94 B
ARSENIC	9.8	3.9	C	2.6	2.1	**5.7 K**	2.1
BARIUM	130 [15]	15000	N	NA	14.8 J	NA	NA
BERYLLIUM	NA	160	N	1.2	0.79 J	1.1 J	1
CADMIUM	0.99	70	N	0.47	0.072 B	**7.9 K**	0.42
CHROMIUM	43.4	120000	N[12]	**90.9**	13.3 J	**138**	**103**
COBALT	50	23	N	NA	6.3	NA	NA
COPPER	31.6	3100	N	12	7 J	**113**	14.9
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	0.49 U	NA	0.87 U	0.44 U
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**151**	5.2 J	**101**	**90.2**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.71**	0.046	**0.34**	0.016 U
MOLYBDENUM	NA	390	N	NA	0.69	NA	NA
NICKEL	22.7	1500	N	**69.4**	9	**23.2**	**51.5**
SELENIUM	2	390	N	0.48 U	0.8	1.9	1.6 K
SILVER	1	390	N	0.097 U	0.11 B	**1.3**	0.092 U
THALLIUM	21.3 [16]	NA		0.29 U	0.21 U	0.56 U	0.28 U
VANADIUM	57 [15]	390	N	NA	14.2 J	NA	NA
ZINC	121	23000	N	80	30.8	**230**	54.7
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		81	80	42	85
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-4	SD-5	SD-6	SD-7
SAMPLE ID					SD-4-031705	SD-5-031805	SD-6-031805	SD-7-031805
SAMPLE DATE					20050317	20050318	20050318	20050318
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		6.9 U	10 U	12 U	10 U
1,4-DICHLOROBENZENE	599		24000	C	6.9 U	10 U	12 U	10 U
2-BUTANONE	25710	[4]	28000000	N	14 U	20 U	24 U	21 U
ACETONE	60030	[4]	61000000	N	14 U	15 B	24 U	91 B
CARBON DISULFIDE	0.851		820000	N	6.9 U	10 U	12 U	10 U
CHLOROBENZENE	8.42		290000	N	6.9 U	10 U	12 U	10 U
CHLOROMETHANE	17800	[4]	120000	N	14 U	20 U	24 U	21 U
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	6.9 U	10 U	12 U	10 U
ISOPROPYLBENZENE	86		2100000	N	6.9 U	10 U	12 U	10 U
METHYL TERT-BUTYL ETHER	NA		430000	C	6.9 U	10 U	12 U	10 U
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	6.9 U	10 U	12 U	10 U
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	460 U	680 U	790 U	680 U
1,3-DICHLOROBENZENE	4430		NA		460 U	680 U	790 U	680 U
1,4-DICHLOROBENZENE	599		24000	C	460 U	680 U	790 U	680 U
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	**34 J**	680 U	790 U	680 U
ACENAPHTHENE	6.7		3400000	N	460 U	680 U	790 U	680 U
ACENAPHTHYLENE	5.9		3400000	N[7]	**55 J**	680 U	790 U	680 U
ANTHRACENE	57.2		17000000	N	**200 J**	**290 J**	790 U	680 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1043**	**1678**	**970**	**537**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**813**	**1338**	**575**	**194**
BENZO(A)ANTHRACENE	108		1500	C	**750**	**1200**	**440 J**	**140 J**
BENZO(A)PYRENE	150		150	C	**630**	**1000**	**450 J**	150 J
BENZO(B)FLUORANTHENE	NA		1500	C	710	1500	490 J	200 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**390 J**	**670 J**	**370 J**	110 J
BENZO(K)FLUORANTHENE	240		15000	C	**270 J**	**550 J**	**270 J**	680 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	**400 J**	**1500 J**	**1200 J**	**430 J**
BUTYL BENZYL PHTHALATE	10900		2600000	C	460 U	680 U	790 U	680 U
CARBAZOLE	NA		NA		460 U	190 J	790 U	680 U
CHRYSENE	166		150000	C	**830**	**1300**	**410 J**	140 J
DIBENZO(A,H)ANTHRACENE	33		150	C	460 U	680 U	790 U	680 U
DIBENZOFURAN	415		78000	N	460 U	680 U	790 U	680 U
FLUORANTHENE	423		2300000	N	**1400**	**2300**	**740 J**	250 J
FLUORENE	77.4		2300000	N	**130 J**	680 U	790 U	680 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**330 J**	**610 J**	**290 J**	**95 J**
NAPHTHALENE	176		36000	C	460 U	680 U	790 U	680 U
PHENANTHRENE	204		1700000	N[8]	**1400**	**1300**	**330 J**	130 J
PYRENE	195		1700000	N	**1800**	**2200**	**870**	**270 J**
TOTAL PAHS	1610		NA		**8929**	**12920**	**4660**	1485
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	46 U	68 U	79 U	68 U
AROCLOR-1254	59.8	[9]	1100	N[10]	46 U	68 U	79 U	68 U
AROCLOR-1260	59.8	[9]	2200	C	46 U	**420 J**	**540 J**	**110**
TOTAL AROCLOR	59.8		2200	C[11]	0 U	**420**	**540**	**110**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-4 SD-4-031705 20050317 NORMAL SD NORMAL SS 0 6	SD-5 SD-5-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-6 SD-6-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-7 SD-7-031805 20050318 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	**4.6**	1.9 B	1.7 B	0.47 B
ARSENIC	9.8	3.9	C	3.3	**4.6**	**4.8 K**	**4.3 K**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	0.77	1 J	1.3 J	1.1 J
CADMIUM	0.99	70	N	**20.5**	**20.9 K**	**34.8 K**	**5.6 K**
CHROMIUM	43.4	120000	N[12]	**113**	**203**	**391**	**76.8**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	25	**61.2**	**84.8**	**41.2**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	0.53 U	0.72 U	0.87 U	1.2
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**140**	**107**	**145**	**64.1**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.027	0.1	**0.32**	0.084
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	17.2	**30**	**27.3**	12.3
SELENIUM	2	390	N	1 U	0.87	1	0.9
SILVER	1	390	N	0.21 U	0.77	**2.6**	0.46
THALLIUM	21.3 [16]	NA		0.62 UL	0.42 U	0.51 U	0.46 U
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**276**	**331**	**425**	**138**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		72	49	44	49
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-8	SD-9	SD-10	SD-11
SAMPLE ID				SD-8-031805	SD-9-031805	SD-10-031805	SD-11-031805
SAMPLE DATE				20050318	20050318	20050318	20050318
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		10 U	16 U	14 U	8.9 U
1,4-DICHLOROBENZENE	599	24000	C	10 U	16 U	14 U	8.9 U
2-BUTANONE	25710 [4]	28000000	N	20 U	32 U	29 U	18 U
ACETONE	60030 [4]	61000000	N	96 B	160 B	28 B	18 U
CARBON DISULFIDE	0.851	820000	N	10 U	**9.1 J**	14 U	8.9 U
CHLOROBENZENE	8.42	290000	N	10 U	16 U	14 U	8.9 U
CHLOROMETHANE	17800 [4]	120000	N	20 U	32 U	29 U	18 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	10 U	16 U	14 U	8.9 U
ISOPROPYLBENZENE	86	2100000	N	10 U	16 U	14 U	8.9 U
METHYL TERT-BUTYL ETHER	NA	430000	C	10 U	16 U	14 U	8.9 U
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	10 U	16 U	14 U	8.9 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	670 U	1100 U	960 U	600 U
1,3-DICHLOROBENZENE	4430	NA		670 U	1100 U	960 U	600 U
1,4-DICHLOROBENZENE	599	24000	C	670 U	1100 U	960 U	600 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	670 U	1100 U	960 U	600 U
ACENAPHTHENE	6.7	3400000	N	670 U	1100 U	**190 J**	600 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**63 J**	1100 U	960 U	600 U
ANTHRACENE	57.2	17000000	N	**120 J**	**180 J**	**500 J**	600 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1005**	**1270**	**1919**	600 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**670**	**1270**	**1439**	600 U
BENZO(A)ANTHRACENE	108	1500	C	**580 J**	**790 J**	**1300**	600 U
BENZO(A)PYRENE	150	150	C	**500 J**	**810 J**	**1100**	600 U
BENZO(B)FLUORANTHENE	NA	1500	C	800	**1600**	1400	600 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**310 J**	**670 J**	**740 J**	600 U
BENZO(K)FLUORANTHENE	240	15000	C	**290 J**	**400 J**	**490 J**	600 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	180 J	**310 J**	**280 J**	78 J
BUTYL BENZYL PHTHALATE	10900	2600000	C	670 U	1100 U	960 U	600 U
CARBAZOLE	NA	NA		670 U	1100 U	250 J	600 U
CHRYSENE	166	150000	C	**710**	**1100**	**1300**	600 U
DIBENZO(A,H)ANTHRACENE	33	150	C	670 U	**160 J**	960 U	600 U
DIBENZOFURAN	415	78000	N	670 U	1100 U	960 U	600 U
FLUORANTHENE	423	2300000	N	**1500**	**2300**	**2700**	600 U
FLUORENE	77.4	2300000	N	670 U	1100 U	**250 J**	600 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**280 J**	**560 J**	**630 J**	600 U
NAPHTHALENE	176	36000	C	670 U	1100 U	960 U	600 U
PHENANTHRENE	204	1700000	N[8]	**410 J**	**810 J**	**2300**	600 U
PYRENE	195	1700000	N	**1100**	**1700**	**2700**	600 U
TOTAL PAHS	1610	NA		**6663**	**11080**	**15600**	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	67 U	11000 U	190 U	300 U
AROCLOR-1254	59.8 [9]	1100	N[10]	67 U	11000 U	190 U	300 U
AROCLOR-1260	59.8 [9]	2200	C	**370**	**54000**	**1300**	**1400**
TOTAL AROCLOR	59.8	2200	C[11]	**370**	**54000**	**1300**	**1400**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-8 SD-8-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-9 SD-9-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-10 SD-10-031805 20050318 NORMAL SD NORMAL SS 0 6	SD-11 SD-11-031805 20050318 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.1 B	2.1 B	1.9 B	1 B
ARSENIC	9.8	3.9	C	**5.9**	**11.6**	**9.4**	**5.3**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.2 J	1.7 J	2.1 J	1 J
CADMIUM	0.99	70	N	**5 K**	**6.1 K**	**4.9 K**	**3.5 K**
CHROMIUM	43.4	120000	N[12]	**89.1**	**103**	**87.1**	**58.1**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**82.6**	**159**	**119**	**64.3**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	0.74 U	1.3 U	1.2 U	0.74
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**67.8**	**103**	**88.9**	**59.6**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.17	**0.3**	**0.27**	**0.21**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	19.6	**39**	**33**	16.5
SELENIUM	2	390	N	0.85	**2.1**	**2.1**	1.4
SILVER	1	390	N	0.79	**1.2**	**1.4**	**2.9**
THALLIUM	21.3 [16]	NA		0.46 B	0.69 U	0.67 U	0.44 U
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**184**	**401**	**339**	**199**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		50	32	35	56
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-12	SD-13	SD-14	SD-15
SAMPLE ID					SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE					20050318	20051020	20051020	20051021
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		17 U	20 UJ	6 U	19 UJ
1,4-DICHLOROBENZENE	599		24000	C	17 U	20 UJ	6 U	19 UJ
2-BUTANONE	25710	[4]	28000000	N	33 U	23 J	32 UR	95 UR
ACETONE	60030	[4]	61000000	N	110 B	130 B	32 UR	95 B
CARBON DISULFIDE	0.851		820000	N	17 U	20 UJ	6 U	19 UJ
CHLOROBENZENE	8.42		290000	N	17 U	20 UJ	6 U	19 UJ
CHLOROMETHANE	17800	[4]	120000	N	33 U	39 UJ	13 U	38 UJ
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	17 U	20 UJ	6 U	19 UJ
ISOPROPYLBENZENE	86		2100000	N	17 U	20 UJ	6 U	19 UJ
METHYL TERT-BUTYL ETHER	NA		430000	C	17 U	8 J	13 U	6 J
NAPHTHALENE	176		36000	C	NA	7 J	6 U	19 UJ
SEC-BUTYLBENZENE	880	[4]	NA		NA	20 UJ	6 U	19 UJ
TERT-BUTYLBENZENE	1210	[4]	NA		NA	20 UJ	6 U	19 UJ
TOLUENE	2880	[4]	5000000	N	17 U	20 UJ	6 U	4 J
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	1100 U	1300 UJ	430 U	1300 UJ
1,3-DICHLOROBENZENE	4430		NA		1100 U	1300 UJ	430 U	1300 UJ
1,4-DICHLOROBENZENE	599		24000	C	1100 U	230 J	430 U	1300 UJ
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	1300 UJ	430 U	1300 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	1100 U	1300 UJ	430 U	1300 UJ
ACENAPHTHENE	6.7		3400000	N	1100 U	1300 UJ	430 U	1300 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	1100 U	1300 UJ	430 U	1300 UJ
ANTHRACENE	57.2		17000000	N	1100 U	**310 J**	**200 J**	1300 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1993**	**3941**	**1308**	**2223**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**1443**	**3291**	**1093**	**1573**
BENZO(A)ANTHRACENE	108		1500	C	**1100 J**	**2000 J**	**1100**	**1000 J**
BENZO(A)PYRENE	150		150	C	**1100 J**	**2500 J**	**790**	**1200 J**
BENZO(B)FLUORANTHENE	NA		1500	C	**1600**	**3700 J**	1400	**1800 J**
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**760 J**	**2000 J**	**360 J**	**730 J**
BENZO(K)FLUORANTHENE	240		15000	C	**530 J**	**1800 J**	**560**	**750 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	**430 J**	**1400 J**	**210 J**	**820 J**
BUTYL BENZYL PHTHALATE	10900		2600000	C	160 J	1300 UJ	430 U	1300 UJ
CARBAZOLE	NA		NA		1100 U	1300 UJ	130 J	1300 UJ
CHRYSENE	166		150000	C	**1200**	**3000 J**	**1200**	**1400 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	1100 U	1300 UJ	430 U	1300 UJ
DIBENZOFURAN	415		78000	N	1100 U	1300 UJ	430 U	1300 UJ
FLUORANTHENE	423		2300000	N	**2000**	**4200 J**	**2400**	**2000 J**
FLUORENE	77.4		2300000	N	1100 U	1300 UJ	**81 J**	1300 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	**660 J**	**2000 J**	**460**	**840 J**
NAPHTHALENE	176		36000	C	1100 U	**250 J**	430 U	1300 UJ
PHENANTHRENE	204		1700000	N[8]	**550 J**	**1500 J**	**830**	**940 J**
PYRENE	195		1700000	N	**1900**	**6800 J**	**2400**	**3900 J**
TOTAL PAHS	1610		NA		**11400**	**30060**	**11781**	**14560**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	220 U	66 UJ	22 U	68 UJ
AROCLOR-1254	59.8	[9]	1100	N[10]	220 U	66 UJ	22 U	68 UJ
AROCLOR-1260	59.8	[9]	2200	C	**1800**	**1400 J**	**480**	**1300 J**
TOTAL AROCLOR	59.8		2200	C[11]	**1800**	**1400**	**480**	**1300**

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-12	SD-13	SD-14	SD-15
SAMPLE ID				SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE				20050318	20051020	20051020	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	2.1 B	1.09 UJ	0.96	1.8 J
ARSENIC	9.8	3.9	C	**9.7**	**9 J**	**4**	**10.5 J**
BARIUM	130 [15]	15000	N	NA	49.5 J	60.6	57.4 J
BERYLLIUM	NA	160	N	2.2 J	2.2 J	0.46	2.2 J
CADMIUM	0.99	70	N	**5.9 K**	**5.9 J**	**3.5**	**4.7 J**
CHROMIUM	43.4	120000	N[12]	**106**	**124 J**	**75**	**120 J**
COBALT	50	23	N	NA	18.8 J	4.4	17.8 J
COPPER	31.6	3100	N	**140**	**116 J**	19.1	**124 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.4 U	**8.2 J**	0.53 J	2 UJ
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**115**	**127 J**	**42.2**	**123 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.35**	**0.48 J**	**0.34 L**	**0.44 J**
MOLYBDENUM	NA	390	N	NA	2 J	1.3	2.3 J
NICKEL	22.7	1500	N	**35.6**	**42.5 J**	9.9	**39.6 J**
SELENIUM	2	390	N	**2.9**	0.95 UJ	0.37 UL	1.12 UJ
SILVER	1	390	N	**2**	**2.3 J**	**14.9**	**1.8 J**
THALLIUM	21.3 [16]	NA		0.77 U	1.63 UJ	0.64 U	1.91 UJ
VANADIUM	57 [15]	390	N	NA	55 J	14.9	**57.8 J**
ZINC	121	23000	N	**423**	**464 J**	**132**	**405 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		30	26	77	25
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-16	SD-17	SD-18	SD-19
SAMPLE ID				SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS
SAMPLE DATE				20051020	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		20 UJ	21 UJ	22 UJ	16 UJ
1,4-DICHLOROBENZENE	599	24000	C	20 UJ	21 UJ	22 UJ	16 UJ
2-BUTANONE	25710 [4]	28000000	N	100 UR	100 UR	110 UR	23 J
ACETONE	60030 [4]	61000000	N	100 B	100 B	110 B	81 B
CARBON DISULFIDE	0.851	820000	N	20 UJ	21 UJ	22 UJ	16 UJ
CHLOROBENZENE	8.42	290000	N	20 UJ	21 UJ	22 UJ	16 UJ
CHLOROMETHANE	17800 [4]	120000	N	40 UJ	41 UJ	44 UJ	32 UJ
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	20 UJ	21 UJ	22 UJ	16 UJ
ISOPROPYLBENZENE	86	2100000	N	20 UJ	21 UJ	22 UJ	16 UJ
METHYL TERT-BUTYL ETHER	NA	430000	C	9 J	8 J	9 J	32 UJ
NAPHTHALENE	176	36000	C	20 UJ	21 UJ	22 UJ	16 UJ
SEC-BUTYLBENZENE	880 [4]	NA		20 UJ	21 UJ	22 UJ	16 UJ
TERT-BUTYLBENZENE	1210 [4]	NA		20 UJ	21 UJ	22 UJ	16 UJ
TOLUENE	2880 [4]	5000000	N	20 UJ	21 UJ	22 UJ	16 UJ
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	1400 UJ	1300 UJ	1500 UJ	1100 UJ
1,3-DICHLOROBENZENE	4430	NA		1400 UJ	1300 UJ	1500 UJ	1100 UJ
1,4-DICHLOROBENZENE	599	24000	C	240 J	1300 UJ	1500 UJ	140 J
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1400 UJ	1300 UJ	1500 UJ	1100 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	1400 UJ	1300 UJ	1500 UJ	1100 UJ
ACENAPHTHENE	6.7	3400000	N	1400 UJ	1300 UJ	1500 UJ	1100 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	1400 UJ	1300 UJ	1500 UJ	1100 UJ
ANTHRACENE	57.2	17000000	N	1400 UJ	1300 UJ	1500 UJ	**210 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1446**	**1532**	**1501**	**1794**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**676**	**817**	**676**	**1244**
BENZO(A)ANTHRACENE	108	1500	C	**490 J**	**510 J**	**380 J**	**770 J**
BENZO(A)PYRENE	150	150	C	**540 J**	**650 J**	**540 J**	**960 J**
BENZO(B)FLUORANTHENE	NA	1500	C	810 J	1100 J	930 J	1400 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1400 UJ	1300 UJ	1500 UJ	**460 J**
BENZO(K)FLUORANTHENE	240	15000	C	**480 J**	**480 J**	**430 J**	**670 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**520 J**	**330 J**	**550 J**	**960 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	1400 UJ	1300 UJ	1500 UJ	1100 UJ
CARBAZOLE	NA	NA		1400 UJ	1300 UJ	1500 UJ	1100 UJ
CHRYSENE	166	150000	C	**720 J**	**770 J**	**600 J**	**960 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	1400 UJ	1300 UJ	1500 UJ	1100 UJ
DIBENZOFURAN	415	78000	N	1400 UJ	1300 UJ	1500 UJ	1100 UJ
FLUORANTHENE	423	2300000	N	**940 J**	**1200 J**	**980 J**	**1500 J**
FLUORENE	77.4	2300000	N	1400 UJ	1300 UJ	1500 UJ	1100 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	1400 UJ	1300 UJ	1500 UJ	**590 J**
NAPHTHALENE	176	36000	C	1400 UJ	1300 UJ	1500 UJ	1100 UJ
PHENANTHRENE	204	1700000	N[8]	**440 J**	**580 J**	**370 J**	**770 J**
PYRENE	195	1700000	N	**1500 J**	**1600 J**	**1200 J**	**2200 J**
TOTAL PAHS	1610	NA		**5920**	**6890**	**5430**	**10490**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	71 UJ	69 UJ	78 UJ	57 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	71 UJ	69 UJ	78 UJ	57 UJ
AROCLOR-1260	59.8 [9]	2200	C	**1400 J**	**1100 J**	**780 J**	**2800 J**
TOTAL AROCLOR	59.8	2200	C[11]	**1400**	**1100**	**780**	**2800**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-16	SD-17	SD-18	SD-19
SAMPLE ID				SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS
SAMPLE DATE				20051020	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.33 UJ	1.5 J	1.7 J	1.07 UJ
ARSENIC	9.8	3.9	C	**9.6 J**	**11.9 J**	**11.3 J**	**8.2 J**
BARIUM	130 [15]	15000	N	45.2 J	52.8 J	51.9 J	45.8 J
BERYLLIUM	NA	160	N	2.2 J	2.5 J	2.4 J	2.2 J
CADMIUM	0.99	70	N	**5.1 J**	**4.6 J**	**4.6 J**	**7.2 J**
CHROMIUM	43.4	120000	N[12]	**127 J**	**125 J**	**132 J**	**135 J**
COBALT	50	23	N	17.9 J	19.3 J	19.6 J	19.3 J
COPPER	31.6	3100	N	**116 J**	**127 J**	**131 J**	**97.3 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	2.1 UJ	2 UJ	2.3 UJ	1.6 UJ
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**109 J**	**114 J**	**115 J**	**125 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.4 J**	**0.39 J**	**0.4 J**	**0.43 J**
MOLYBDENUM	NA	390	N	1.2 J	1.6 J	1.2 J	1.3 J
NICKEL	22.7	1500	N	**39.3 J**	**42.4 J**	**40.9 J**	**42.4 J**
SELENIUM	2	390	N	1.16 UJ	**2.3 J**	1.24 UJ	0.93 UJ
SILVER	1	390	N	**1.9 J**	**1.7 J**	**1.5 J**	**2.3 J**
THALLIUM	21.3 [16]	NA		2.1 J	2.23 UJ	2.11 UJ	1.59 UJ
VANADIUM	57 [15]	390	N	52.2 J	**61.4 J**	**57.4 J**	56.3 J
ZINC	121	23000	N	**373 J**	**384 J**	**372 J**	**427 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		24	25	22	30
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	47000 J	NA	42000 J
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-20	SD-21	SD-22	SD-23
SAMPLE ID					SD-20-SS	SD-21-SS	SD-22-SS	SD-23-SS
SAMPLE DATE					20051021	20051021	20051021	20051021
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		22 UJ	20 UJ	2 J	22 UJ
1,4-DICHLOROBENZENE	599		24000	C	2 J	1 J	3 J	1 J
2-BUTANONE	25710	[4]	28000000	N	110 UR	99 UR	110 UR	110 UR
ACETONE	60030	[4]	61000000	N	230 B	200 B	240 B	140 B
CARBON DISULFIDE	0.851		820000	N	22 UJ	20 UJ	22 UJ	22 UJ
CHLOROBENZENE	8.42		290000	N	22 UJ	20 UJ	3 J	22 UJ
CHLOROMETHANE	17800	[4]	120000	N	45 UJ	40 UJ	44 UJ	43 UJ
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	22 UJ	20 UJ	22 UJ	22 UJ
ISOPROPYLBENZENE	86		2100000	N	22 UJ	20 UJ	22 UJ	22 UJ
METHYL TERT-BUTYL ETHER	NA		430000	C	6 J	8 J	5 J	9 J
NAPHTHALENE	176		36000	C	22 UJ	20 UJ	22 UJ	22 UJ
SEC-BUTYLBENZENE	880	[4]	NA		22 UJ	20 UJ	22 UJ	22 UJ
TERT-BUTYLBENZENE	1210	[4]	NA		22 UJ	20 UJ	22 UJ	22 UJ
TOLUENE	2880	[4]	5000000	N	22 UJ	20 UJ	22 UJ	22 UJ
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
1,3-DICHLOROBENZENE	4430		NA		1500 UJ	1300 UJ	1400 UJ	1400 UJ
1,4-DICHLOROBENZENE	599		24000	C	1500 UJ	1300 UJ	450 J	1400 UJ
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	1500 UJ	1300 UJ	1400 UJ	1400 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
ACENAPHTHENE	6.7		3400000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	1500 UJ	1300 UJ	1400 UJ	1400 UJ
ANTHRACENE	57.2		17000000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1358**	**1354**	**1496**	**1371**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**533**	**639**	**726**	**601**
BENZO(A)ANTHRACENE	108		1500	C	**360 J**	**350 J**	**400 J**	**350 J**
BENZO(A)PYRENE	150		150	C	**420 J**	**520 J**	**580 J**	**480 J**
BENZO(B)FLUORANTHENE	NA		1500	C	740 J	800 J	1000 J	830 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	1500 UJ	1300 UJ	1400 UJ	1400 UJ
BENZO(K)FLUORANTHENE	240		15000	C	**290 J**	**350 J**	**520 J**	**280 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	1500 UJ	**360 J**	**440 J**	**360 J**
BUTYL BENZYL PHTHALATE	10900		2600000	C	1500 UJ	1300 UJ	1400 UJ	1400 UJ
CARBAZOLE	NA		NA		1500 UJ	1300 UJ	1400 UJ	1400 UJ
CHRYSENE	166		150000	C	**490 J**	**570 J**	**690 J**	**530 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	1500 UJ	1300 UJ	1400 UJ	1400 UJ
DIBENZOFURAN	415		78000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
FLUORANTHENE	423		2300000	N	**920 J**	**990 J**	**1000 J**	**860 J**
FLUORENE	77.4		2300000	N	1500 UJ	1300 UJ	1400 UJ	1400 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	1500 UJ	1300 UJ	1400 UJ	1400 UJ
NAPHTHALENE	176		36000	C	1500 UJ	1300 UJ	1400 UJ	1400 UJ
PHENANTHRENE	204		1700000	N[8]	**350 J**	**350 J**	**460 J**	**300 J**
PYRENE	195		1700000	N	**820 J**	**950 J**	**1300 J**	**1100 J**
TOTAL PAHS	1610		NA		**4390**	**4880**	**5950**	**4730**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	77 UJ	67 UJ	74 UJ	74 UJ
AROCLOR-1254	59.8	[9]	1100	N[10]	77 UJ	67 UJ	74 UJ	74 UJ
AROCLOR-1260	59.8	[9]	2200	C	**1100 J**	**560 J**	**2000 J**	**750 J**
TOTAL AROCLOR	59.8		2200	C[11]	**1100**	**560**	**2000**	**750**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-20	SD-21	SD-22	SD-23
SAMPLE ID					SD-20-SS	SD-21-SS	SD-22-SS	SD-23-SS
SAMPLE DATE					20051021	20051021	20051021	20051021
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
METALS (MG/KG)								
ANTIMONY	2		31	N	1.4 J	1.35 UJ	1.35 UJ	1.25 UJ
ARSENIC	9.8		3.9	C	**10.2 J**	**9.4 J**	**11.2 J**	**11.1 J**
BARIUM	130	(15)	15000	N	52 J	38.2 J	61.1 J	52 J
BERYLLIUM	NA		160	N	2.4 J	1.9 J	2.5 J	2.3 J
CADMIUM	0.99		70	N	**5.4 J**	**3.3 J**	**5.2 J**	**5.3 J**
CHROMIUM	43.4		120000	N[12]	**140 J**	**98.4 J**	**156 J**	**154 J**
COBALT	50		23	N	19.6 J	15.2 J	22.2 J	19.9 J
COPPER	31.6		3100	N	**126 J**	**104 J**	**151 J**	**127 J**
HEXAVALENT CHROMIUM	43.4		2.9	C[13]	2.2 UJ	2 UJ	2.2 UJ	2.2 UJ
IRON	20000		55000	N	NA	NA	NA	NA
LEAD	35.8		400		**115 J**	**86 J**	**127 J**	**119 J**
MANGANESE	460		1800	N	NA	NA	NA	NA
MERCURY	0.18		23	N[14]	**0.46 J**	**0.33 J**	**0.4 J**	**0.4 J**
MOLYBDENUM	NA		390	N	1.3 J	1 J	1.3 J	1.4 J
NICKEL	22.7		1500	N	**41 J**	**31.5 J**	**46.1 J**	**41.3 J**
SELENIUM	2		390	N	1.13 UJ	1.2 J	1.18 UJ	1.09 UJ
SILVER	1		390	N	**1.7 J**	0.97 J	**1.8 J**	**1.9 J**
THALLIUM	21.3	(16)	NA		1.94 UJ	2.01 UJ	2.01 UJ	1.87 UJ
VANADIUM	57	(15)	390	N	55.6 J	44 J	**61.5 J**	55.9 J
ZINC	121		23000	N	**386 J**	**281 J**	**404 J**	**362 J**
METALS (UG/KG)								
DIBUTYLTIN	NA		NA		NA	NA	5.5 J	NA
MISCELLANEOUS PARAMETERS (%)								
PERCENT SOLIDS	NA		NA		22	25	23	23
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA		NA		NA	NA	NA	55000 J
AVS/SEM (UMOLES/G)								
ACID VOLATILE SULFIDE	NA		NA		NA	NA	NA	NA
CADMIUM	NA		NA		NA	NA	NA	NA
CHROMIUM	NA		NA		NA	NA	NA	NA
COPPER	NA		NA		NA	NA	NA	NA
LEAD	NA		NA		NA	NA	NA	NA
NICKEL	NA		NA		NA	NA	NA	NA
SILVER	NA		NA		NA	NA	NA	NA
ZINC	NA		NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-24	SD-25	SD-26	SD-27
SAMPLE ID				SD-24-SS	SD-25-SS	SD-26-SS	SD-27-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		7 U	12 UJ	23 UJ	14 U
1,4-DICHLOROBENZENE	599	24000	C	7 U	12 UJ	23 UJ	14 U
2-BUTANONE	25710 [4]	28000000	N	36 UR	58 UR	110 UR	71 UR
ACETONE	60030 [4]	61000000	N	13 B	47 B	65 B	80 B
CARBON DISULFIDE	0.851	820000	N	7 U	12 UR	23 UJ	14 U
CHLOROBENZENE	8.42	290000	N	7 U	12 UJ	23 UJ	14 U
CHLOROMETHANE	17800 [4]	120000	N	15 U	23 UJ	46 UJ	28 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	7 U	12 UJ	23 UJ	14 U
ISOPROPYLBENZENE	86	2100000	N	7 U	12 UJ	23 UJ	14 U
METHYL TERT-BUTYL ETHER	NA	430000	C	15 U	3 J	8 J	28 U
NAPHTHALENE	176	36000	C	7 U	12 UJ	23 UJ	14 U
SEC-BUTYLBENZENE	880 [4]	NA		7 U	12 UJ	23 UJ	14 U
TERT-BUTYLBENZENE	1210 [4]	NA		7 U	12 UJ	23 UJ	14 U
TOLUENE	2880 [4]	5000000	N	7 U	12 UJ	23 UJ	10 J
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	480 U	780 U	1500 UJ	940 U
1,3-DICHLOROBENZENE	4430	NA		480 U	780 U	1500 UJ	420 J
1,4-DICHLOROBENZENE	599	24000	C	480 U	96 J	160 J	**850 J**
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	480 U	780 U	1500 UJ	940 U
2-METHYLNAPHTHALENE	20.2	310000	N	480 U	780 U	1500 UJ	940 U
ACENAPHTHENE	6.7	3400000	N	480 U	**160 J**	1500 UJ	**250 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	480 U	780 U	1500 UJ	940 U
ANTHRACENE	57.2	17000000	N	480 U	**150 J**	1500 UJ	**300 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**711**	**886**	**1390**	**1776**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**471**	**492**	**565**	**1306**
BENZO(A)ANTHRACENE	108	1500	C	**370 J**	**330 J**	**330 J**	**980**
BENZO(A)PYRENE	150	150	C	**350 J**	**370 J**	**450 J**	**990 J**
BENZO(B)FLUORANTHENE	NA	1500	C	570 J	570 J	780 J	1400 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**230 J**	780 UJ	1500 UJ	**730 J**
BENZO(K)FLUORANTHENE	240	15000	C	210 J	780 UJ	**310 J**	240 J
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**450 J**	**300 J**	**1500 J**	**630 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	120 J	780 U	1500 UJ	940 U
CARBAZOLE	NA	NA		480 U	780 U	1500 UJ	180 J
CHRYSENE	166	150000	C	**480 J**	**490 J**	**530 J**	**1400**
DIBENZO(A,H)ANTHRACENE	33	150	C	480 UJ	780 UJ	1500 UJ	940 UJ
DIBENZOFURAN	415	78000	N	480 U	780 U	1500 UJ	940 U
FLUORANTHENE	423	2300000	N	**440 J**	**500 J**	**780 J**	**1500**
FLUORENE	77.4	2300000	N	480 U	780 U	1500 UJ	**180 J**
INDENO(1,2,3-CD)PYRENE	17	1500	C	**240 J**	**320 J**	1500 UJ	**740 J**
NAPHTHALENE	176	36000	C	480 U	780 U	1500 UJ	940 U
PHENANTHRENE	204	1700000	N[8]	**240 J**	**240 J**	**360 J**	**850 J**
PYRENE	195	1700000	N	**990 J**	**860**	**1200 J**	**2500**
TOTAL PAHS	1610	NA		**4120**	**3990**	**4740**	**12060**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	25 U	40 U	76 UJ	2400 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	25 U	40 U	76 UJ	2400 UJ
AROCLOR-1260	59.8 [9]	2200	C	**190 J**	**1300 J**	**1500 J**	**20000 J**
TOTAL AROCLOR	59.8	2200	C[11]	**190**	**1300**	**1500**	**20000**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-24	SD-25	SD-26	SD-27
SAMPLE ID				SD-24-SS	SD-25-SS	SD-26-SS	SD-27-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.43 UL	0.71 UL	1.5 J	1.2 L
ARSENIC	9.8	3.9	C	3.8	**5.1**	**11 J**	**7.4**
BARIUM	130 [15]	15000	N	17.1	21.5	59.2 J	61.5
BERYLLIUM	NA	160	N	0.84	0.98	2.1 J	2.3
CADMIUM	0.99	70	N	**1.6**	**4.3**	**5.6 J**	**22.7**
CHROMIUM	43.4	120000	N[12]	33.4 K	**63.7 K**	**170 J**	**454 K**
COBALT	50	23	N	9.8	9.8	21 J	22.6
COPPER	31.6	3100	N	27.2 J	**61.3 J**	**141 J**	**98.8 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	0.74 UL	1.1 UL	2.2 UJ	1.4 UL
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		29.4	**49.6**	**121 J**	**186**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.1 K	**0.23 K**	**0.52 J**	**0.68 K**
MOLYBDENUM	NA	390	N	0.56	0.34 U	1 J	1
NICKEL	22.7	1500	N	15.6	17.1	**43.2 J**	**52.8**
SELENIUM	2	390	N	0.38 U	0.62 B	1.4 B	1.2 B
SILVER	1	390	N	0.11 UL	0.74 L	**1.6 J**	**8.9**
THALLIUM	21.3 [16]	NA		0.64 U	1.05 U	2.21 UJ	1.8 B
VANADIUM	57 [15]	390	N	20.8	24.2	54.9 J	**64.9**
ZINC	121	23000	N	**134**	**180**	**379 J**	**456**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		68	42	22	35
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	28000 K	NA	47000 K
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-28	SD-29	SD-30	SD-31
SAMPLE ID				SD-28-SS	SD-29-SS	SD-30-SS	SD-31-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		17 UL	15 UL	19 UJ	13 U
1,4-DICHLOROBENZENE	599	24000	C	17 UL	15 UL	19 UJ	13 U
2-BUTANONE	25710 [4]	28000000	N	85 UR	17 J	93 UJ	66 U
ACETONE	60030 [4]	61000000	N	85 B	88 B	140 B	61 B
CARBON DISULFIDE	0.851	820000	N	17 UL	**12 J**	19 UJ	13 U
CHLOROBENZENE	8.42	290000	N	17 UL	15 U	19 UJ	13 U
CHLOROMETHANE	17800 [4]	120000	N	34 UL	30 U	37 UJ	26 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	17 UL	15 U	19 UJ	13 U
ISOPROPYLBENZENE	86	2100000	N	17 UL	15 UL	19 UJ	13 U
METHYL TERT-BUTYL ETHER	NA	430000	C	3 J	5 J	3 J	3 J
NAPHTHALENE	176	36000	C	17 UL	15 UL	19 UJ	13 U
SEC-BUTYLBENZENE	880 [4]	NA		17 UL	15 UL	19 UJ	13 U
TERT-BUTYLBENZENE	1210 [4]	NA		17 UL	15 U	19 UJ	13 U
TOLUENE	2880 [4]	5000000	N	17 UL	15 U	19 UJ	13 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	1100 UJ	980 U	1300 UJ	860 U
1,3-DICHLOROBENZENE	4430	NA		1100 UJ	980 U	1300 UJ	860 U
1,4-DICHLOROBENZENE	599	24000	C	1100 UJ	76 J	120 B	860 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1100 UJ	980 U	1300 UJ	860 U
2-METHYLNAPHTHALENE	20.2	310000	N	1100 UJ	980 U	1300 UJ	860 U
ACENAPHTHENE	6.7	3400000	N	**790 J**	980 U	260 B	860 U
ACENAPHTHYLENE	5.9	3400000	N[7]	1100 UJ	980 U	1300 UJ	860 U
ANTHRACENE	57.2	17000000	N	**1700 J**	980 U	1300 UJ	860 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**6472**	**1121**	**1202**	860 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**6472**	**582**	**481**	860 U
BENZO(A)ANTHRACENE	108	1500	C	**5200 J**	**420 J**	**300 J**	860 U
BENZO(A)PYRENE	150	150	C	**4400 J**	**470 J**	**380 J**	860 U
BENZO(B)FLUORANTHENE	NA	1500	C	**5800 J**	660 J	700 J	860 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**3100 J**	980 UJ	1300 UJ	860 U
BENZO(K)FLUORANTHENE	240	15000	C	**2700 J**	**310 J**	1300 UJ	860 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**510 J**	**390 J**	**340 J**	860 U
BUTYL BENZYL PHTHALATE	10900	2600000	C	1100 UJ	980 UJ	1300 UJ	860 U
CARBAZOLE	NA	NA		990 J	980 U	1300 UJ	860 U
CHRYSENE	166	150000	C	**5400 J**	**560 J**	**540 J**	860 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**600 J**	980 UJ	1300 UJ	860 U
DIBENZOFURAN	415	78000	N	340 J	980 U	1300 UJ	860 U
FLUORANTHENE	423	2300000	N	**9800 J**	**840 J**	**540 J**	860 U
FLUORENE	77.4	2300000	N	**680 J**	980 U	1300 UJ	860 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**3400 J**	980 UJ	1300 UJ	860 U
NAPHTHALENE	176	36000	C	**290 J**	980 U	1300 UJ	860 U
PHENANTHRENE	204	1700000	N[8]	**6800 J**	**360 J**	1300 UJ	860 U
PYRENE	195	1700000	N	**13000 J**	**1200 J**	**1000 J**	860 U
TOTAL PAHS	1610	NA		**63660**	**4820**	**3460**	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	59 UJ	51 U	68 UJ	44 U
AROCLOR-1254	59.8 [9]	1100	N[10]	59 UJ	51 U	68 UJ	44 U
AROCLOR-1260	59.8 [9]	2200	C	**790 J**	**2500**	**1400 J**	**170**
TOTAL AROCLOR	59.8	2200	C[11]	**790**	**2500**	**1400**	**170**

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-28	SD-29	SD-30	SD-31
SAMPLE ID				SD-28-SS	SD-29-SS	SD-30-SS	SD-31-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.23 UJ	1.09 UL	1.24 UJ	0.74 UL
ARSENIC	9.8	3.9	C	**8.4 J**	**8.3**	**10.1 J**	**6.2**
BARIUM	130 [15]	15000	N	66.8 J	63.3	55.8 J	37.3
BERYLLIUM	NA	160	N	2.2 J	2.3	1.9 J	1.9
CADMIUM	0.99	70	N	**39.4 J**	**10.3**	**3.9 J**	0.37
CHROMIUM	43.4	120000	N[12]	**680 J**	**253 K**	**140 J**	**46 K**
COBALT	50	23	N	20.9 J	22.8	18.6 J	16.1
COPPER	31.6	3100	N	**112 J**	**93.5 J**	**136 J**	24.3 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.7 UJ	1.5 UL	2 UJ	1.3 UL
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**235 J**	**198**	**109 J**	34.4
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.98 J**	**0.84 K**	**3.5 J**	**0.19 K**
MOLYBDENUM	NA	390	N	1.9 J	1.4	0.97 J	1.2
NICKEL	22.7	1500	N	**62.8 J**	**52.5**	**37.3 J**	**25**
SELENIUM	2	390	N	1.2 B	1.4 B	1.9 B	0.65 U
SILVER	1	390	N	**28.6 J**	**3.1 L**	**1.6 J**	0.19 UL
THALLIUM	21.3 [16]	NA		1.83 UJ	1.63 U	1.85 UJ	1.1 U
VANADIUM	57 [15]	390	N	**120 J**	**69.7**	53.3 J	38.2
ZINC	121	23000	N	**636 J**	**414**	**338 J**	105
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		4.5 UJ	9.9	NA	3.3 U
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		29	34	25	38
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-32	SD-33	SD-34	SD-35
SAMPLE ID				SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		24 UJ	20 UJ	13 UJ	19 UJ
1,4-DICHLOROBENZENE	599	24000	C	24 UJ	20 UJ	13 UJ	19 UJ
2-BUTANONE	25710 [4]	28000000	N	120 UJ	100 UR	64 UJ	96 UR
ACETONE	60030 [4]	61000000	N	110 B	36 B	77 B	40 B
CARBON DISULFIDE	0.851	820000	N	24 UJ	20 UJ	13 UJ	19 UJ
CHLOROBENZENE	8.42	290000	N	24 UJ	20 UJ	13 UJ	19 UJ
CHLOROMETHANE	17800 [4]	120000	N	49 UJ	41 UJ	25 UJ	13 J
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	24 UJ	20 UJ	13 UJ	19 UJ
ISOPROPYLBENZENE	86	2100000	N	24 UJ	20 UJ	13 UJ	19 UJ
METHYL TERT-BUTYL ETHER	NA	430000	C	9 J	6 J	3 J	6 J
NAPHTHALENE	176	36000	C	24 UJ	20 UJ	13 UJ	19 UJ
SEC-BUTYLBENZENE	880 [4]	NA		24 UJ	20 UJ	13 UJ	19 UJ
TERT-BUTYLBENZENE	1210 [4]	NA		24 UJ	20 UJ	13 UJ	19 UJ
TOLUENE	2880 [4]	5000000	N	24 UJ	20 UJ	13 UJ	19 UJ
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	1600 UJ	1300 UJ	840 U	1200 UJ
1,3-DICHLOROBENZENE	4430	NA		1600 UJ	1300 UJ	840 U	1200 UJ
1,4-DICHLOROBENZENE	599	24000	C	1600 UJ	1300 UJ	74 B	110 B
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1600 UJ	1300 UJ	840 U	1200 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	1600 UJ	1300 UJ	840 U	1200 UJ
ACENAPHTHENE	6.7	3400000	N	1600 UJ	1300 UJ	170 B	1200 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	1600 UJ	1300 UJ	840 U	1200 UJ
ANTHRACENE	57.2	17000000	N	1600 UJ	1300 UJ	**170 J**	1200 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1249**	**1466**	**895**	**927**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**280**	29	**428**	**200**
BENZO(A)ANTHRACENE	108	1500	C	1600 UJ	1300 UJ	**260 J**	1200 UJ
BENZO(A)PYRENE	150	150	C	**240 J**	1300 UJ	**350 J**	**170 J**
BENZO(B)FLUORANTHENE	NA	1500	C	400 J	290 J	520 J	300 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1600 UJ	1300 UJ	840 UJ	1200 UJ
BENZO(K)FLUORANTHENE	240	15000	C	1600 UJ	1300 UJ	840 UJ	1200 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**2900 J**	**800 J**	**1900**	**1600 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	1600 UJ	1300 UJ	190 J	1200 UJ
CARBAZOLE	NA	NA		1600 UJ	1300 UJ	840 U	1200 UJ
CHRYSENE	166	150000	C	1600 UJ	1300 UJ	**410 J**	1200 UJ
DIBENZO(A,H)ANTHRACENE	33	150	C	1600 UJ	1300 UJ	840 UJ	1200 UJ
DIBENZOFURAN	415	78000	N	1600 UJ	1300 UJ	840 U	1200 UJ
FLUORANTHENE	423	2300000	N	**470 J**	340 J	**430 J**	310 J
FLUORENE	77.4	2300000	N	1600 UJ	1300 UJ	840 U	1200 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	1600 UJ	1300 UJ	840 UJ	1200 UJ
NAPHTHALENE	176	36000	C	1600 UJ	1300 UJ	840 U	1200 UJ
PHENANTHRENE	204	1700000	N[8]	1600 UJ	1300 UJ	**220 J**	1200 UJ
PYRENE	195	1700000	N	**610 J**	**400 J**	**830 J**	**440 J**
TOTAL PAHS	1610	NA		**1720**	1030	**3190**	1220
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1260	59.8 [9]	2200	C	**620 J**	**720 J**	**290**	**370 J**
TOTAL AROCLOR	59.8	2200	C[11]	**620**	**720**	**290**	**370**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-32	SD-33	SD-34	SD-35
SAMPLE ID				SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.73 UJ	1.39 UJ	0.72 UL	1.17 UJ
ARSENIC	9.8	3.9	C	**12.1 J**	**10.3 J**	**6.7**	**12 J**
BARIUM	130 [15]	15000	N	72.1 J	57.7 J	36.2	64.1 J
BERYLLIUM	NA	160	N	1.9 J	1.8 J	1.2	1.9 J
CADMIUM	0.99	70	N	**3 J**	**3.9 J**	**3.7**	**4.2 J**
CHROMIUM	43.4	120000	N[12]	**152 J**	**154 J**	**105 K**	**172 J**
COBALT	50	23	N	19.8 J	18.3 J	13.5	20.7 J
COPPER	31.6	3100	N	**152 J**	**141 J**	**94.5 J**	**154 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	2.5 UJ	2 UJ	1.3 UL	1.9 UJ
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**117 J**	**114 J**	**78.4**	**127 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.52 J**	**0.49 J**	**0.34 K**	**0.51 J**
MOLYBDENUM	NA	390	N	1.5 J	1.5 J	0.89	1.2 J
NICKEL	22.7	1500	N	**41.5 J**	**38 J**	**23.9**	**41.6 J**
SELENIUM	2	390	N	1.51 UJ	1.21 UJ	0.63 UL	1.02 UJ
SILVER	1	390	N	**1.1 J**	**1.2 J**	0.94 L	**1.6 J**
THALLIUM	21.3 [16]	NA		4 B	2.07 UJ	1.08 UL	1.75 UJ
VANADIUM	57 [15]	390	N	**62.9 J**	55.9 J	35	**62.1 J**
ZINC	121	23000	N	**350 J**	**339 J**	**225**	**360 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		20	24	39	27
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	51000 J	NA	47000 J
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-36	SD-37	SD-38	SD-39
SAMPLE ID				SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		17 UJ	21 UJ	24 UJ	17 UJ
1,4-DICHLOROBENZENE	599	24000	C	17 UJ	21 UJ	24 UJ	17 UJ
2-BUTANONE	25710 [4]	28000000	N	87 UR	100 UR	120 UR	84 UR
ACETONE	60030 [4]	61000000	N	79 J	130 J	120 UR	84 UR
CARBON DISULFIDE	0.851	820000	N	17 UJ	21 UJ	24 UJ	17 UJ
CHLOROBENZENE	8.42	290000	N	17 UJ	21 UJ	24 UJ	17 UJ
CHLOROMETHANE	17800 [4]	120000	N	35 UJ	42 UJ	48 UJ	34 UJ
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	17 UJ	21 UJ	24 UJ	17 UJ
ISOPROPYLBENZENE	86	2100000	N	17 UJ	21 UJ	24 UJ	17 UJ
METHYL TERT-BUTYL ETHER	NA	430000	C	5 J	5 J	7 J	34 UJ
NAPHTHALENE	176	36000	C	17 UJ	21 UJ	24 UJ	17 UJ
SEC-BUTYLBENZENE	880 [4]	NA		17 UJ	21 UJ	24 UJ	17 UJ
TERT-BUTYLBENZENE	1210 [4]	NA		17 UJ	21 UJ	24 UJ	17 UJ
TOLUENE	2880 [4]	5000000	N	17 UJ	21 UJ	24 UJ	17 UJ
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	1200 UJ	1400 UJ	1600 UJ	1100 UJ
1,3-DICHLOROBENZENE	4430	NA		1200 UJ	1400 UJ	1600 UJ	1100 UJ
1,4-DICHLOROBENZENE	599	24000	C	100 B	130 B	1600 UJ	1100 UJ
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	1200 UJ	1400 UJ	1600 UJ	1100 UJ
ACENAPHTHENE	6.7	3400000	N	240 B	280 B	310 B	1100 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	1200 UJ	1400 UJ	1600 UJ	1100 UJ
ANTHRACENE	57.2	17000000	N	1200 UJ	1400 UJ	1600 UJ	1100 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**962**	**1277**	**1262**	**900**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**236**	**500**	**294**	**234**
BENZO(A)ANTHRACENE	108	1500	C	1200 UJ	**310 J**	1600 UJ	1100 UJ
BENZO(A)PYRENE	150	150	C	**200 J**	**410 J**	**250 J**	**200 J**
BENZO(B)FLUORANTHENE	NA	1500	C	360 J	590 J	440 J	340 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1200 UJ	1400 UJ	1600 UJ	1100 UJ
BENZO(K)FLUORANTHENE	240	15000	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**1200 J**	**1500 J**	**1400 J**	**870 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
CARBAZOLE	NA	NA		1200 UJ	1400 UJ	1600 UJ	1100 UJ
CHRYSENE	166	150000	C	**280 J**	**490 J**	**340 J**	**260 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
DIBENZOFURAN	415	78000	N	1200 UJ	1400 UJ	1600 UJ	1100 UJ
FLUORANTHENE	423	2300000	N	360 J	**530 J**	**430 J**	330 J
FLUORENE	77.4	2300000	N	1200 UJ	1400 UJ	1600 UJ	1100 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
NAPHTHALENE	176	36000	C	1200 UJ	1400 UJ	1600 UJ	1100 UJ
PHENANTHRENE	204	1700000	N[8]	1200 UJ	1400 UJ	1600 UJ	1100 UJ
PYRENE	195	1700000	N	**550 J**	**980 J**	**640 J**	**430 J**
TOTAL PAHS	1610	NA		**1750**	**3310**	**2100**	1560
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	64 UJ	72 UJ	82 UJ	57 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	64 UJ	72 UJ	82 UJ	57 UJ
AROCLOR-1260	59.8 [9]	2200	C	**430 J**	**240 J**	**210 J**	**190 J**
TOTAL AROCLOR	59.8	2200	C[11]	**430**	**240**	**210**	**190**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-36	SD-37	SD-38	SD-39
SAMPLE ID				SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.25 UJ	1.41 UJ	1.26 UJ	0.86 UJ
ARSENIC	9.8	3.9	C	**9.6 J**	**8.5 J**	**9.7 J**	**7.4 J**
BARIUM	130 [15]	15000	N	56.3 J	42.8 J	55.4 J	32.6 J
BERYLLIUM	NA	160	N	1.8 J	1.5 J	1.9 J	1.2 J
CADMIUM	0.99	70	N	**4.7 J**	**4.3 J**	**5.5 J**	**5.3 J**
CHROMIUM	43.4	120000	N[12]	**152 J**	**113 J**	**158 J**	**127 J**
COBALT	50	23	N	18.9 J	15 J	18 J	13.1 J
COPPER	31.6	3100	N	**138 J**	**114 J**	**146 J**	**118 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.8 UJ	**13 J**	2.4 UJ	1.7 UJ
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**115 J**	**86.8 J**	**118 J**	**105 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.34 J**	**0.26 J**	**0.36 J**	**0.38 J**
MOLYBDENUM	NA	390	N	1 J	1.2 J	1.9 J	1.2 J
NICKEL	22.7	1500	N	**39.7 J**	**31.7 J**	**37.9 J**	**26.6 J**
SELENIUM	2	390	N	1.6 J	1.23 UJ	1.1 UJ	0.75 UJ
SILVER	1	390	N	2.1 B	1.7 B	1.9 B	1.8 B
THALLIUM	21.3 [16]	NA		1.87 UJ	2.11 UJ	1.9 B	1.28 UJ
VANADIUM	57 [15]	390	N	48.2 J	38.1 J	48.1 J	30.2 J
ZINC	121	23000	N	**327 J**	**270 J**	**333 J**	**260 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	5.6 UJ	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		27	24	21	30
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	47000 J
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-40	SD-41	SD-42	SD-43
SAMPLE ID				SD-40-SS	SD-41-SS	SD-42-SS	SD-43-SS
SAMPLE DATE				20051021	20051021	20051021	20081117
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		18 UJ	19 UJ	13 UJ	NA
1,4-DICHLOROBENZENE	599	24000	C	18 UJ	19 UJ	13 UJ	NA
2-BUTANONE	25710 [4]	28000000	N	90 UR	94 UR	63 UR	NA
ACETONE	60030 [4]	61000000	N	150 J	65 J	59 J	NA
CARBON DISULFIDE	0.851	820000	N	18 UJ	19 UJ	13 U	NA
CHLOROBENZENE	8.42	290000	N	18 UJ	19 UJ	13 U	NA
CHLOROMETHANE	17800 [4]	120000	N	36 UJ	38 UJ	25 U	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	18 UJ	19 UJ	13 U	NA
ISOPROPYLBENZENE	86	2100000	N	18 UJ	19 UJ	13 UJ	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	36 UJ	5 J	4 J	NA
NAPHTHALENE	176	36000	C	18 UJ	19 UJ	13 UJ	NA
SEC-BUTYLBENZENE	880 [4]	NA		18 UJ	19 UJ	13 UJ	NA
TERT-BUTYLBENZENE	1210 [4]	NA		18 UJ	19 UJ	13 U	NA
TOLUENE	2880 [4]	5000000	N	18 UJ	19 UJ	3 J	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	1200 UJ	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		1200 UJ	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	120 B	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1200 UJ	NA	NA	380 U
2-METHYLNAPHTHALENE	20.2	310000	N	1200 UJ	NA	NA	380 U
ACENAPHTHENE	6.7	3400000	N	240 B	NA	NA	380 U
ACENAPHTHYLENE	5.9	3400000	N[7]	1200 UJ	NA	NA	380 U
ANTHRACENE	57.2	17000000	N	1200 UJ	NA	NA	**180 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1138**	NA	NA	**1337**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**472**	NA	NA	**1147**
BENZO(A)ANTHRACENE	108	1500	C	**350 J**	NA	NA	**1100**
BENZO(A)PYRENE	150	150	C	**380 J**	NA	NA	**880**
BENZO(B)FLUORANTHENE	NA	1500	C	560 J	NA	NA	950
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1200 UJ	NA	NA	**550**
BENZO(K)FLUORANTHENE	240	15000	C	1200 UJ	NA	NA	**710**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**1200 J**	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	1200 UJ	NA	NA	NA
CARBAZOLE	NA	NA		1200 UJ	NA	NA	NA
CHRYSENE	166	150000	C	**530 J**	NA	NA	**1200**
DIBENZO(A,H)ANTHRACENE	33	150	C	1200 UJ	NA	NA	380 U
DIBENZOFURAN	415	78000	N	1200 UJ	NA	NA	NA
FLUORANTHENE	423	2300000	N	**540 J**	NA	NA	**1400**
FLUORENE	77.4	2300000	N	1200 UJ	NA	NA	38 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	1200 UJ	NA	NA	**540**
NAPHTHALENE	176	36000	C	1200 UJ	NA	NA	380 U
PHENANTHRENE	204	1700000	N[8]	1200 UJ	NA	NA	**670**
PYRENE	195	1700000	N	**950 J**	NA	NA	**1800**
TOTAL PAHS	1610	NA		**3310**	NA	NA	**10018**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	61 UJ	NA	NA	24 U
AROCLOR-1254	59.8 [9]	1100	N[10]	61 UJ	NA	NA	**400 J**
AROCLOR-1260	59.8 [9]	2200	C	**360 J**	NA	NA	24 U
TOTAL AROCLOR	59.8	2200	C[11]	**360**	NA	NA	**400**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-40	SD-41	SD-42	SD-43
SAMPLE ID					SD-40-SS	SD-41-SS	SD-42-SS	SD-43-SS
SAMPLE DATE					20051021	20051021	20051021	20081117
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
METALS (MG/KG)								
ANTIMONY	2		31	N	1.21 UJ	0.89 UJ	0.88 U	**2.7**
ARSENIC	9.8		3.9	C	**8.6 J**	**6 J**	**4.2**	**6.1**
BARIUM	130	(15)	15000	N	71.6 J	41.7 J	44	91.9 J
BERYLLIUM	NA		160	N	2.6 J	1.6 J	1.5	0.74 J
CADMIUM	0.99		70	N	**24 J**	**10.6 J**	**32.9**	**296**
CHROMIUM	43.4		120000	N[12]	**361 J**	**173 J**	**354**	**699 J**
COBALT	50		23	N	**26.6 J**	14.5 J	17	8.6
COPPER	31.6		3100	N	**111 J**	**105 J**	**101**	**66.9 J**
HEXAVALENT CHROMIUM	43.4		2.9	C[13]	1.8 UJ	1.9 UJ	1.2 U	NA
IRON	20000		55000	N	NA	NA	NA	NA
LEAD	35.8		400		**216 J**	**108 J**	**162**	**178 J**
MANGANESE	460		1800	N	NA	NA	NA	NA
MERCURY	0.18		23	N[14]	**0.52 J**	**0.35 J**	**0.29**	**0.39**
MOLYBDENUM	NA		390	N	2.3 J	1.3 J	1.6	0.59
NICKEL	22.7		1500	N	**53.8 J**	**29.8 J**	**33.8**	16.1
SELENIUM	2		390	N	1.05 UJ	1 J	0.77 U	0.92
SILVER	1		390	N	3.4 B	1.6 B	**2.7**	0.22 B
THALLIUM	21.3	(16)	NA		1.8 UJ	1.33 UJ	1.31 U	0.24 U
VANADIUM	57	(15)	390	N	**61.7 J**	33.6 J	33.2	27.6 J
ZINC	121		23000	N	**548 J**	**313 J**	**475**	**287**
METALS (UG/KG)								
DIBUTYLTIN	NA		NA		11 J	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)								
PERCENT SOLIDS	NA		NA		28	26	40	70
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA		NA		46000 J	NA	NA	NA
AVS/SEM (UMOLES/G)								
ACID VOLATILE SULFIDE	NA		NA		NA	NA	NA	NA
CADMIUM	NA		NA		NA	NA	NA	NA
CHROMIUM	NA		NA		NA	NA	NA	NA
COPPER	NA		NA		NA	NA	NA	NA
LEAD	NA		NA		NA	NA	NA	NA
NICKEL	NA		NA		NA	NA	NA	NA
SILVER	NA		NA		NA	NA	NA	NA
ZINC	NA		NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-44	SD-45	SD-46	SD-47
SAMPLE ID				SD-44-SS	SD-45-SS	SD-46-SS	SD-47-SS
SAMPLE DATE				20081117	20081117	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	**39 J**	590 U	690 U	580 U
2-METHYLNAPHTHALENE	20.2	310000	N	420 U	590 U	690 U	580 U
ACENAPHTHENE	6.7	3400000	N	**73 J**	590 U	690 U	580 U
ACENAPHTHYLENE	5.9	3400000	N[7]	420 U	590 U	690 U	580 U
ANTHRACENE	57.2	17000000	N	**300 J**	**100 J**	690 U	**110 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1258**	**1302**	**787**	**659**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**1048**	**1007**	62.8	50.4
BENZO(A)ANTHRACENE	108	1500	C	**950**	**770**	690 U	580 U
BENZO(A)PYRENE	150	150	C	**850**	**790**	690 U	580 U
BENZO(B)FLUORANTHENE	NA	1500	C	580	830	380 J	310 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**450**	**560 J**	**230 J**	580 U
BENZO(K)FLUORANTHENE	240	15000	C	**620**	**890**	**340 J**	**300 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**1000**	**930**	**420 J**	**390 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	420 U	590 U	690 U	580 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**1100**	**1100**	**660 J**	**710**
FLUORENE	77.4	2300000	N	**120 J**	590 U	690 U	580 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**380 J**	**470 J**	**210 J**	**160 J**
NAPHTHALENE	176	36000	C	420 U	590 U	690 U	580 U
PHENANTHRENE	204	1700000	N[8]	**1200**	**500 J**	**280 J**	**400 J**
PYRENE	195	1700000	N	**2500**	**1900**	**750**	**770**
TOTAL PAHS	1610	NA		**10123**	**8840**	**3270**	**3150**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	21 U	30 U	35 U	29 U
AROCLOR-1254	59.8 [9]	1100	N[10]	21 U	30 U	35 U	29 U
AROCLOR-1260	59.8 [9]	2200	C	21 U	**270**	**160**	**80**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	**270**	**160**	**80**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-44	SD-45	SD-46	SD-47
SAMPLE ID				SD-44-SS	SD-45-SS	SD-46-SS	SD-47-SS
SAMPLE DATE				20081117	20081117	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.7	**2.3**	0.71 L	0.47 L
ARSENIC	9.8	3.9	C	**4.8**	**4.8**	**6.1**	**4.1**
BARIUM	130 [15]	15000	N	103	29.4	43.5	27.4
BERYLLIUM	NA	160	N	1.3	0.87	1.3	1.4
CADMIUM	0.99	70	N	**12.7**	**22.5**	**51.7**	**13.9**
CHROMIUM	43.4	120000	N[12]	42.4	**224**	**592**	**235**
COBALT	50	23	N	9.8	13	16	9.7
COPPER	31.6	3100	N	14.4	**72.2**	**97.2**	**40.4**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**43.5**	**102**	**249**	**203**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.022	0.18	**0.39**	**0.21**
MOLYBDENUM	NA	390	N	0.05 U	2.1	1.6	1.2
NICKEL	22.7	1500	N	15.5	20.9	**34.5**	17.1
SELENIUM	2	390	N	0.51	0.92	0.92	1.5
SILVER	1	390	N	0.18	**1.2**	**2.3**	0.81
THALLIUM	21.3 [16]	NA		0.22 U	0.51	0.34 U	0.29 U
VANADIUM	57 [15]	390	N	30.7	28.8	41	22
ZINC	121	23000	N	116	**382**	**524**	**296**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		79	56	48	57
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	23000	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-48	SD-48	SD-48	SD-49
SAMPLE ID				SD-48-SS	SD-48-SS-AVG	SD-48-SS-D	SD-49-SS
SAMPLE DATE				20081115	20081115	20081115	20081115
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	490 U	495 U	500 U	540 U
2-METHYLNAPHTHALENE	20.2	310000	N	490 U	495 U	500 U	540 U
ACENAPHTHENE	6.7	3400000	N	490 U	495 U	500 U	540 U
ACENAPHTHYLENE	5.9	3400000	N[7]	490 U	495 U	500 U	540 U
ANTHRACENE	57.2	17000000	N	490 U	495 U	500 U	540 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	490 U	495 U	500 U	540 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	490 U	495 U	500 U	540 U
BENZO(A)ANTHRACENE	108	1500	C	490 U	495 U	500 U	540 U
BENZO(A)PYRENE	150	150	C	490 U	495 U	500 U	540 U
BENZO(B)FLUORANTHENE	NA	1500	C	490 U	495 U	500 U	540 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	490 U	495 U	500 U	540 U
BENZO(K)FLUORANTHENE	240	15000	C	490 U	495 U	500 U	540 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	490 U	495 U	500 U	540 U
DIBENZO(A,H)ANTHRACENE	33	150	C	490 U	495 U	500 U	540 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	490 U	495 U	500 U	540 U
FLUORENE	77.4	2300000	N	490 U	495 U	500 U	540 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	490 U	495 U	500 U	540 U
NAPHTHALENE	176	36000	C	490 U	495 U	500 U	540 U
PHENANTHRENE	204	1700000	N[8]	490 U	495 U	500 U	540 U
PYRENE	195	1700000	N	490 U	495 U	500 U	540 U
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	25 U	25 U	25 U	33 U
AROCLOR-1254	59.8 [9]	1100	N[10]	25 U	25 U	25 U	33 U
AROCLOR-1260	59.8 [9]	2200	C	25 U	25 U	25 U	33 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-48	SD-48	SD-48	SD-49
SAMPLE ID				SD-48-SS	SD-48-SS-AVG	SD-48-SS-D	SD-49-SS
SAMPLE DATE				20081115	20081115	20081115	20081115
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.15 UL	0.15 UL	0.15 UL	0.21 U
ARSENIC	9.8	3.9	C	2.4	2.3	2.2	2.4
BARIUM	130 [15]	15000	N	10.6	11.25	11.9	90.9 J
BERYLLIUM	NA	160	N	1.6	1.55	1.5	1.4 J
CADMIUM	0.99	70	N	0.24	0.18	0.12	0.42
CHROMIUM	43.4	120000	N[12]	11.3	11.1	10.9	16.1 J
COBALT	50	23	N	4.8	4.8	4.8	9.3
COPPER	31.6	3100	N	7.1	6.7	6.3	26.9 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		4	3.95	3.9	**60 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.013 B	0.0107 B	0.0084 U	0.035 B
MOLYBDENUM	NA	390	N	1.6	1.65	1.7	0.082 U
NICKEL	22.7	1500	N	7.5	7.5	7.5	17.7
SELENIUM	2	390	N	0.49 U	0.495 U	0.5 U	0.67 U
SILVER	1	390	N	0.093 U	0.094 U	0.095 U	0.17 B
THALLIUM	21.3 [16]	NA		0.25 U	0.255 U	0.26 U	0.35 U
VANADIUM	57 [15]	390	N	17.5	15.45	13.4	15 J
ZINC	121	23000	N	30.6	26.5	22.4	116
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		68	67.5	67	50
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		7400	7400	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50 SD-50-SS 20081114 NORMAL SD NORMAL SS 0 6	SD-51 SD-51-SS 20081115 NORMAL SD NORMAL SS 0 6	SD-53 SD-53-SS 20081114 ORIG SD NORMAL SS 0 6	SD-53 SD-53-SS-AVG 20081114 AVG SD NORMAL SS 0 6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1500 UJ	1300 UJ	780 U	780 U
2-METHYLNAPHTHALENE	20.2	310000	N	1500 UJ	1300 UJ	780 U	780 U
ACENAPHTHENE	6.7	3400000	N	1500 UJ	1300 UJ	780 U	780 U
ACENAPHTHYLENE	5.9	3400000	N[7]	1500 UJ	1300 UJ	780 U	780 U
ANTHRACENE	57.2	17000000	N	1500 UJ	1300 UJ	780 U	780 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1689**	1300 U	780 U	780 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	39.2	1300 U	780 U	780 U
BENZO(A)ANTHRACENE	108	1500	C	1500 UJ	1300 UJ	780 U	780 U
BENZO(A)PYRENE	150	150	C	1500 UJ	1300 UJ	780 U	780 U
BENZO(B)FLUORANTHENE	NA	1500	C	360 J	1300 UJ	780 U	780 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1500 UJ	1300 UJ	780 U	780 U
BENZO(K)FLUORANTHENE	240	15000	C	**280 J**	1300 UJ	780 U	780 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**380 J**	1300 UJ	780 U	780 U
DIBENZO(A,H)ANTHRACENE	33	150	C	1500 UJ	1300 UJ	780 U	780 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**500 J**	1300 UJ	780 U	780 U
FLUORENE	77.4	2300000	N	1500 UJ	1300 UJ	780 U	780 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	1500 UJ	1300 UJ	780 U	780 U
NAPHTHALENE	176	36000	C	1500 UJ	1300 UJ	780 U	780 U
PHENANTHRENE	204	1700000	N[8]	1500 UJ	1300 UJ	780 U	780 U
PYRENE	195	1700000	N	**630 J**	1300 UJ	780 U	780 U
TOTAL PAHS	1610	NA		**2150**	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1254	59.8 [9]	1100	N[10]	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1260	59.8 [9]	2200	C	**2300 J**	65 UJ	39 U	39 U
TOTAL AROCLOR	59.8	2200	C[11]	**2300**	0 U	0 U	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50 SD-50-SS 20081114 NORMAL SD NORMAL SS 0 6	SD-51 SD-51-SS 20081115 NORMAL SD NORMAL SS 0 6	SD-53 SD-53-SS 20081114 ORIG SD NORMAL SS 0 6	SD-53 SD-53-SS-AVG 20081114 AVG SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.44 UJ	0.39 UJ	0.24 UL	0.235 UL
ARSENIC	9.8	3.9	C	**12.2 J**	**11.6 J**	**6.1**	**6.4**
BARIUM	130 [15]	15000	N	57.6 J	55.9 J	31.8	30.9
BERYLLIUM	NA	160	N	2.2 J	2.1 J	1.9	1.95
CADMIUM	0.99	70	N	**5.7 J**	**7.8 J**	0.31	0.17225
CHROMIUM	43.4	120000	N[12]	**161 J**	**192 J**	36.3	35.35
COBALT	50	23	N	20.4 J	21.5 J	12.3	12.35
COPPER	31.6	3100	N	**152 J**	**131 J**	21.6	21.35
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**130 J**	**136 J**	17.6	16.8
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.45 J**	**0.53 J**	0.061	0.1155
MOLYBDENUM	NA	390	N	1.3 J	1.6 J	0.96	0.7175
NICKEL	22.7	1500	N	**41.8 J**	**39.5 J**	20.4	21.05
SELENIUM	2	390	N	1.6 J	**2.2 J**	1.7	1.04
SILVER	1	390	N	**2.1 J**	**2.6 J**	0.15 U	0.15 U
THALLIUM	21.3 [16]	NA		0.75 UJ	0.66 UJ	0.41 U	0.405 U
VANADIUM	57 [15]	390	N	**62.1 J**	**60.8 J**	36.4	37.05
ZINC	121	23000	N	**375 J**	**374 J**	70.6	68.45
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	26	42	42
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-53	SD-54	SD-55	SD-56
SAMPLE ID				SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS
SAMPLE DATE				20081114	20081114	20081113	20081113
SAMPLE CODE				DUP	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	780 U	1600 UJ	1400 UJ	940 U
2-METHYLNAPHTHALENE	20.2	310000	N	780 U	1600 UJ	1400 UJ	940 U
ACENAPHTHENE	6.7	3400000	N	780 U	1600 UJ	1400 UJ	940 U
ACENAPHTHYLENE	5.9	3400000	N[7]	780 U	1600 UJ	1400 UJ	940 U
ANTHRACENE	57.2	17000000	N	780 U	1600 UJ	1400 UJ	**82 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	780 U	**1813**	**1561**	**1075**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	780 U	52.8	19.9	87.6
BENZO(A)ANTHRACENE	108	1500	C	780 U	1600 UJ	1400 UJ	940 U
BENZO(A)PYRENE	150	150	C	780 U	1600 UJ	1400 UJ	940 U
BENZO(B)FLUORANTHENE	NA	1500	C	780 U	480 J	180 J	530 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	780 U	1600 UJ	1400 UJ	**300 J**
BENZO(K)FLUORANTHENE	240	15000	C	780 U	**440 J**	190 J	**410 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	780 U	**420 J**	1400 UJ	**460 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	780 U	1600 UJ	1400 UJ	940 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	780 U	**590 J**	270 J	**700 J**
FLUORENE	77.4	2300000	N	780 U	1600 UJ	1400 UJ	940 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	780 U	1600 UJ	1400 UJ	**300 J**
NAPHTHALENE	176	36000	C	780 U	1600 UJ	1400 UJ	940 U
PHENANTHRENE	204	1700000	N[8]	780 U	**300 J**	1400 UJ	**240 J**
PYRENE	195	1700000	N	780 U	**1100 J**	**470 J**	**910 J**
TOTAL PAHS	1610	NA		0 U	**3330**	1110	**3932**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	39 U	79 UJ	71 UJ	47 U
AROCLOR-1254	59.8 [9]	1100	N[10]	39 U	79 UJ	71 UJ	47 U
AROCLOR-1260	59.8 [9]	2200	C	39 U	79 UJ	**180 J**	36 J
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	**180**	36

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-53	SD-54	SD-55	SD-56
SAMPLE ID					SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS
SAMPLE DATE					20081114	20081114	20081113	20081113
SAMPLE CODE					DUP	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
METALS (MG/KG)								
ANTIMONY	2		31	N	0.23 UL	0.63 J	0.45 UJ	0.28 UL
ARSENIC	9.8		3.9	C	**6.7**	**12.1 J**	**12.9 J**	**8.7**
BARIUM	130	(15)	15000	N	30	61.8 J	62.4 J	36.9
BERYLLIUM	NA		160	N	2	2.1 J	2.3 J	1.5
CADMIUM	0.99		70	N	0.069 B	**3.7 J**	**5.1 J**	**3.7**
CHROMIUM	43.4		120000	N[12]	34.4	**138 J**	**166 J**	**91.1**
COBALT	50		23	N	12.4	20.2 J	21.2 J	14.1
COPPER	31.6		3100	N	21.1	**164 J**	**169 J**	**100**
HEXAVALENT CHROMIUM	43.4		2.9	C[13]	NA	NA	NA	NA
IRON	20000		55000	N	NA	NA	NA	NA
LEAD	35.8		400		16	**119 J**	**133 J**	**79.6**
MANGANESE	460		1800	N	NA	NA	NA	NA
MERCURY	0.18		23	N[14]	0.17	**0.43 J**	**0.45 J**	**0.24**
MOLYBDENUM	NA		390	N	0.95 B	1.1 J	1.4 J	0.94
NICKEL	22.7		1500	N	21.7	**39.5 J**	**42.4 J**	**27.2**
SELENIUM	2		390	N	0.76 U	**2.5 J**	**2.6 J**	1.3
SILVER	1		390	N	0.15 U	**1.9 J**	**2.2 J**	**1.2**
THALLIUM	21.3	(16)	NA		0.4 U	0.8 UJ	0.77 UJ	0.48 U
VANADIUM	57	(15)	390	N	37.7	**61.1 J**	**67.6 J**	44.5
ZINC	121		23000	N	66.3	**347 J**	**378 J**	**250**
METALS (UG/KG)								
DIBUTYLTIN	NA		NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)								
PERCENT SOLIDS	NA		NA		NA	21	24	36
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA		NA		NA	NA	25000	NA
AVS/SEM (UMOLES/G)								
ACID VOLATILE SULFIDE	NA		NA		NA	NA	NA	NA
CADMIUM	NA		NA		NA	NA	NA	NA
CHROMIUM	NA		NA		NA	NA	NA	NA
COPPER	NA		NA		NA	NA	NA	NA
LEAD	NA		NA		NA	NA	NA	NA
NICKEL	NA		NA		NA	NA	NA	NA
SILVER	NA		NA		NA	NA	NA	NA
ZINC	NA		NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-57	SD-58	SD-59	SD-60
SAMPLE ID				SD-57-SS	SD-58-SS	SD-59-SS	SD-60-SS
SAMPLE DATE				20081114	20081114	20081115	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	830 U	1300 UJ	750 U	850 U
2-METHYLNAPHTHALENE	20.2	310000	N	830 U	1300 UJ	750 U	850 U
ACENAPHTHENE	6.7	3400000	N	830 U	1300 UJ	750 U	850 U
ACENAPHTHYLENE	5.9	3400000	N[7]	830 U	1300 UJ	750 U	850 U
ANTHRACENE	57.2	17000000	N	830 U	1300 UJ	750 U	850 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	830 U	**1453**	**840**	**982**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	830 U	22.9	53.0	0.17
BENZO(A)ANTHRACENE	108	1500	C	830 U	1300 UJ	750 U	850 U
BENZO(A)PYRENE	150	150	C	830 U	1300 UJ	750 U	850 U
BENZO(B)FLUORANTHENE	NA	1500	C	830 U	210 J	330 J	850 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	830 U	1300 UJ	750 U	850 U
BENZO(K)FLUORANTHENE	240	15000	C	830 U	160 J	**260 J**	850 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	830 U	**280 J**	**380 J**	**170 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	830 U	1300 UJ	750 U	850 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	830 U	300 J	**480 J**	200 J
FLUORENE	77.4	2300000	N	830 U	1300 UJ	750 U	850 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	830 U	1300 UJ	**170 J**	850 U
NAPHTHALENE	176	36000	C	830 U	1300 UJ	750 U	850 U
PHENANTHRENE	204	1700000	N[8]	830 U	1300 UJ	**240 J**	850 U
PYRENE	195	1700000	N	830 U	**340 J**	**680 J**	**330 J**
TOTAL PAHS	1610	NA		0 U	1290	**2540**	700
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	410 UJ	1300 UJ	230 U	53 U
AROCLOR-1254	59.8 [9]	1100	N[10]	410 UJ	1300 UJ	230 U	53 U
AROCLOR-1260	59.8 [9]	2200	C	41 U	**6300 J**	**4200**	53 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	**6300**	**4200**	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-57	SD-58	SD-59	SD-60
SAMPLE ID					SD-57-SS	SD-58-SS	SD-59-SS	SD-60-SS
SAMPLE DATE					20081114	20081114	20081115	20081112
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
METALS (MG/KG)								
ANTIMONY	2		31	N	0.25 UJ	0.37 UJ	0.27 U	1.7 J
ARSENIC	9.8		3.9	C	**7.4**	**12.8 J**	**9**	**9.5**
BARIUM	130	(15)	15000	N	34.2	61.9 J	54.8 J	52.8 J
BERYLLIUM	NA		160	N	2.1	2.3 J	2.1 J	1.9 J
CADMIUM	0.99		70	N	0.015 U	**7.1 J**	**20.1**	**14.7**
CHROMIUM	43.4		120000	N[12]	37.7	**180 J**	**397 J**	**272 J**
COBALT	50		23	N	14.8	**23.5 J**	19.8	19.2 J
COPPER	31.6		3100	N	20.4	**144 J**	**94.4 J**	**96.5 J**
HEXAVALENT CHROMIUM	43.4		2.9	C[13]	NA	NA	NA	NA
IRON	20000		55000	N	NA	NA	NA	NA
LEAD	35.8		400		15.4	**181 J**	**167 J**	**132**
MANGANESE	460		1800	N	NA	NA	NA	NA
MERCURY	0.18		23	N[14]	0.036	**0.47 J**	**0.9**	**0.7**
MOLYBDENUM	NA		390	N	0.87 B	1.3 B	0.86	1.2
NICKEL	22.7		1500	N	**24.3**	**46.3 J**	**42.8**	**41.7 J**
SELENIUM	2		390	N	0.83 U	1.5 J	**2.4**	**2.1**
SILVER	1		390	N	0.16 U	**2.3 J**	**7.5**	**5.8**
THALLIUM	21.3	(16)	NA		0.43 U	0.64 UJ	0.46 U	0.56 U
VANADIUM	57	(15)	390	N	42.2	**64.3 J**	**64.3 J**	56.1 J
ZINC	121		23000	N	72.2	**441 J**	**433**	**404 J**
METALS (UG/KG)								
DIBUTYLTIN	NA		NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)								
PERCENT SOLIDS	NA		NA		NA	NA	36	31
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA		NA		NA	NA	NA	22000
AVS/SEM (UMOLES/G)								
ACID VOLATILE SULFIDE	NA		NA		NA	NA	NA	NA
CADMIUM	NA		NA		NA	NA	NA	NA
CHROMIUM	NA		NA		NA	NA	NA	NA
COPPER	NA		NA		NA	NA	NA	NA
LEAD	NA		NA		NA	NA	NA	NA
NICKEL	NA		NA		NA	NA	NA	NA
SILVER	NA		NA		NA	NA	NA	NA
ZINC	NA		NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-61	SD-62	SD-63	SD-64
SAMPLE ID				SD-61-SS	SD-62-SS	SD-63-SS	SD-64-SS
SAMPLE DATE				20081113	20081112	20081112	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1400 UJ	890 UJ	940 UJ	850 U
2-METHYLNAPHTHALENE	20.2	310000	N	1400 UJ	890 UJ	940 UJ	850 U
ACENAPHTHENE	6.7	3400000	N	1400 UJ	890 UJ	940 UJ	850 U
ACENAPHTHYLENE	5.9	3400000	N[7]	1400 UJ	890 UJ	940 UJ	850 U
ANTHRACENE	57.2	17000000	N	**400 J**	890 UJ	940 UJ	**140 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**2244**	890 U	**1032**	**1648**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**1544**	890 U	45.5	**1181**
BENZO(A)ANTHRACENE	108	1500	C	**1300 J**	890 UJ	940 UJ	850 U
BENZO(A)PYRENE	150	150	C	**1200 J**	890 UJ	940 UJ	**1000**
BENZO(B)FLUORANTHENE	NA	1500	C	1300 J	890 UJ	320 J	1100
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**700 J**	890 UJ	940 UJ	**700 J**
BENZO(K)FLUORANTHENE	240	15000	C	**1300 J**	890 UJ	220 J	**860**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**1500 J**	890 UJ	**260 J**	**960**
DIBENZO(A,H)ANTHRACENE	33	150	C	1400 UJ	890 UJ	940 UJ	850 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**2600 J**	890 UJ	340 J	**1200**
FLUORENE	77.4	2300000	N	**130 J**	890 UJ	940 UJ	850 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**690 J**	890 UJ	**110 J**	**610 J**
NAPHTHALENE	176	36000	C	1400 UJ	890 UJ	940 UJ	850 U
PHENANTHRENE	204	1700000	N[8]	**1700 J**	890 UJ	940 UJ	**500 J**
PYRENE	195	1700000	N	**3700 J**	890 UJ	**620 J**	**2600 J**
TOTAL PAHS	1610	NA		**16520**	0 U	**1870**	**9670**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	68 UJ	56 UJ	59 UJ	53 U
AROCLOR-1254	59.8 [9]	1100	N[10]	68 UJ	56 UJ	59 UJ	53 U
AROCLOR-1260	59.8 [9]	2200	C	**370 J**	56 UJ	**560 J**	**1600**
TOTAL AROCLOR	59.8	2200	C[11]	**370**	0 U	**560**	**1600**

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-61 SD-61-SS 20081113 NORMAL SD NORMAL SS 0 6	SD-62 SD-62-SS 20081112 NORMAL SD NORMAL SS 0 6	SD-63 SD-63-SS 20081112 NORMAL SD NORMAL SS 0 6	SD-64 SD-64-SS 20081112 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)								
ANTIMONY	2		31	N	0.9 J	0.92 J	1.3 J	1.4 J
ARSENIC	9.8		3.9	C	**11.7 J**	**9.5 J**	**10.5 J**	**10.4**
BARIUM	130	[15]	15000	N	52.8 J	46.5 J	52.3 J	54.6 J
BERYLLIUM	NA		160	N	2.1 J	1.9 J	2.1 J	2.1 J
CADMIUM	0.99		70	N	**5.8 J**	**5.4 J**	**6.3 J**	**9.5 J**
CHROMIUM	43.4		120000	N[12]	**154 J**	**118 J**	**134 J**	**194 J**
COBALT	50		23	N	19.4 J	17.1 J	19.4 J	19.4 J
COPPER	31.6		3100	N	**142 J**	**104 J**	**134 J**	**95.6 J**
HEXAVALENT CHROMIUM	43.4		2.9	C[13]	NA	NA	NA	NA
IRON	20000		55000	N	NA	NA	NA	NA
LEAD	35.8		400		**121 J**	**98.9 J**	**117 J**	**175 J**
MANGANESE	460		1800	N	NA	NA	NA	NA
MERCURY	0.18		23	N[14]	**0.37 J**	**0.35 J**	**0.41 J**	**0.51**
MOLYBDENUM	NA		390	N	1.5 J	1.2 J	1.5 J	1.5 J
NICKEL	22.7		1500	N	**38.2 J**	**36.1 J**	**40.3 J**	**45.7 J**
SELENIUM	2		390	N	**2.3 J**	1.9 J	**2.4 J**	**2.6 J**
SILVER	1		390	N	**2.4 J**	**2.3 J**	**2.6 J**	**4.1 J**
THALLIUM	21.3	[16]	NA		0.74 UJ	0.58 UJ	0.61 UJ	0.57 U
VANADIUM	57	[15]	390	N	**60.3 J**	52.9 J	**60.3 J**	**68.8 J**
ZINC	121		23000	N	**361 J**	**325 J**	**393 J**	**367 J**
METALS (UG/KG)								
DIBUTYLTIN	NA		NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)								
PERCENT SOLIDS	NA		NA		24	30	28	32
MISCELLANEOUS PARAMETERS (MG/KG)								
TOTAL ORGANIC CARBON	NA		NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)								
ACID VOLATILE SULFIDE	NA		NA		NA	NA	NA	NA
CADMIUM	NA		NA		NA	NA	NA	NA
CHROMIUM	NA		NA		NA	NA	NA	NA
COPPER	NA		NA		NA	NA	NA	NA
LEAD	NA		NA		NA	NA	NA	NA
NICKEL	NA		NA		NA	NA	NA	NA
SILVER	NA		NA		NA	NA	NA	NA
ZINC	NA		NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-65	SD-66	SD-67	SD-68
SAMPLE ID				SD-65-SS	SD-66-SS	SD-67-SS	SD-68-SS
SAMPLE DATE				20081111	20081112	20081111	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	1300 UJ	1100 UJ	1400 UJ	1100 UJ
ACENAPHTHENE	6.7	3400000	N	1300 UJ	1100 UJ	1400 UJ	1100 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	1300 UJ	1100 UJ	1400 UJ	1100 UJ
ANTHRACENE	57.2	17000000	N	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	1300 U	1100 U	1400 U	**1271**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	1300 U	1100 U	1400 U	0.18
BENZO(A)ANTHRACENE	108	1500	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BENZO(A)PYRENE	150	150	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BENZO(B)FLUORANTHENE	NA	1500	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BENZO(K)FLUORANTHENE	240	15000	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	1300 UJ	1100 UJ	1400 UJ	**180 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	1300 UJ	1100 UJ	1400 UJ	190 J
FLUORENE	77.4	2300000	N	1300 UJ	1100 UJ	1400 UJ	1100 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
NAPHTHALENE	176	36000	C	1300 UJ	1100 UJ	1400 UJ	1100 UJ
PHENANTHRENE	204	1700000	N[8]	1300 UJ	1100 UJ	1400 UJ	1100 UJ
PYRENE	195	1700000	N	1300 UJ	1100 UJ	1400 UJ	**430 J**
TOTAL PAHS	1610	NA		0 U	0 U	0 U	800
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	63 UJ	71 UJ	69 UJ	67 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	63 UJ	71 UJ	69 UJ	67 UJ
AROCLOR-1260	59.8 [9]	2200	C	**130 J**	71 UJ	**120 J**	67 UJ
TOTAL AROCLOR	59.8	2200	C[11]	**130**	0 U	**120**	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-65	SD-66	SD-67	SD-68
SAMPLE ID				SD-65-SS	SD-66-SS	SD-67-SS	SD-68-SS
SAMPLE DATE				20081111	20081112	20081111	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.36 UJ	1.2 J	0.4 UJ	1.2 J
ARSENIC	9.8	3.9	C	**12 J**	**12.3 J**	**11 J**	**11.4 J**
BARIUM	130 [15]	15000	N	52.3 J	58.6 J	58 J	59.6 J
BERYLLIUM	NA	160	N	2.2 J	2.3 J	2.2 J	2.3 J
CADMIUM	0.99	70	N	**4.6 J**	**7.4 J**	**6.7 J**	**6.2 J**
CHROMIUM	43.4	120000	N[12]	**120 J**	**137 J**	**149 J**	**135 J**
COBALT	50	23	N	18.1 J	20.8 J	19.7 J	20.5 J
COPPER	31.6	3100	N	**130 J**	**140 J**	**118 J**	**129 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**110 J**	**125 J**	**123 J**	**122 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.36 J**	**0.44 J**	**0.42 J**	**0.41 J**
MOLYBDENUM	NA	390	N	1.5 B	2.2 J	1.6 B	1.8 J
NICKEL	22.7	1500	N	**37.3 J**	**44.2 J**	**41.5 J**	**43.1 J**
SELENIUM	2	390	N	1.8 J	**3.1 J**	1.8 J	**2.8 J**
SILVER	1	390	N	**2.1 J**	**2.5 J**	**3.5 J**	**2.5 J**
THALLIUM	21.3 [16]	NA		0.62 U	0.72 UJ	0.68 UJ	0.69 UJ
VANADIUM	57 [15]	390	N	**60.4 J**	**65.1 J**	**61.3 J**	**64.9 J**
ZINC	121	23000	N	**348 J**	**456 J**	**395 J**	**433 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	23	NA	25
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	24000 J	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-69	SD-69	SD-69	SD-70
SAMPLE ID				SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE				20081111	20081111	20081111	20081111
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	450 U	450 UJ	450 UJ	6400 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	450 U	450 UJ	450 UJ	6400 UJ
ACENAPHTHENE	6.7	3400000	N	450 U	450 UJ	450 UJ	6400 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	450 U	450 UJ	450 UJ	6400 UJ
ANTHRACENE	57.2	17000000	N	450 U	450 UJ	450 UJ	6400 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	450 U	450 U	450 U	6400 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	450 U	450 U	450 U	6400 U
BENZO(A)ANTHRACENE	108	1500	C	450 U	450 UJ	450 UJ	6400 UJ
BENZO(A)PYRENE	150	150	C	450 U	450 UJ	450 UJ	6400 UJ
BENZO(B)FLUORANTHENE	NA	1500	C	450 U	450 UJ	450 UJ	6400 UJ
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	450 U	450 UJ	450 UJ	6400 UJ
BENZO(K)FLUORANTHENE	240	15000	C	450 U	450 UJ	450 UJ	6400 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	450 U	450 UJ	450 UJ	6400 UJ
DIBENZO(A,H)ANTHRACENE	33	150	C	450 U	450 UJ	450 UJ	6400 UJ
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	450 U	450 UJ	450 UJ	**820 J**
FLUORENE	77.4	2300000	N	450 U	450 UJ	450 UJ	6400 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	450 U	450 UJ	450 UJ	6400 UJ
NAPHTHALENE	176	36000	C	450 U	450 UJ	450 UJ	6400 UJ
PHENANTHRENE	204	1700000	N[8]	450 U	450 UJ	450 UJ	6400 UJ
PYRENE	195	1700000	N	450 U	450 UJ	450 UJ	6400 UJ
TOTAL PAHS	1610	NA		0 U	0 U	0 U	820
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	23 U	23 U	23 U	64 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	23 U	23 U	23 U	64 UJ
AROCLOR-1260	59.8 [9]	2200	C	23 U	23 U	23 U	**290 J**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	**290**

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-69	SD-69	SD-69	SD-70
SAMPLE ID				SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE				20081111	20081111	20081111	20081111
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	**2.3 L**	1.1825 JL	0.13 UJ	1.1 J
ARSENIC	9.8	3.9	C	**6.6**	**6.55**	**6.5**	**12.2 J**
BARIUM	130 [15]	15000	N	16.5	17.55	18.6	56 J
BERYLLIUM	NA	160	N	5.3	6.1	6.9	2.2 J
CADMIUM	0.99	70	N	0.07	0.03695	0.0078 U	**5.7 J**
CHROMIUM	43.4	120000	N[12]	18.1	17.4	16.7	**129 J**
COBALT	50	23	N	**28.1**	**28.3**	**28.5**	19.8 J
COPPER	31.6	3100	N	19.8	16.95 J	14.1 J	**138 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**57.2**	32.5 J	7.8 J	**122 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.013 B	0.00925	0.012	**0.4 J**
MOLYBDENUM	NA	390	N	0.81	0.55	0.58 B	2 J
NICKEL	22.7	1500	N	**49.3**	**50.1 J**	**50.9 J**	**42.5 J**
SELENIUM	2	390	N	0.42 UL	0.345 JL	0.48 J	1.2 UJ
SILVER	1	390	N	0.081 U	0.082 U	0.083 U	**2.3 J**
THALLIUM	21.3 [16]	NA		0.22 U	0.225 U	0.23 U	0.63 UJ
VANADIUM	57 [15]	390	N	27.1 K	28.85 K	30.6	**65.4 J**
ZINC	121	23000	N	**148**	**158 J**	**168 J**	**401 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		74	74	NA	26
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-71	SD-72	SD-73	SD-74
SAMPLE ID					SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS
SAMPLE DATE					20081111	20081112	20081111	20081111
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	1300 UJ	350 U	750 U	490 U
2-METHYLNAPHTHALENE	20.2		310000	N	1300 UJ	350 U	750 U	490 U
ACENAPHTHENE	6.7		3400000	N	1300 UJ	350 U	750 U	490 U
ACENAPHTHYLENE	5.9		3400000	N[7]	1300 UJ	350 U	750 U	490 U
ANTHRACENE	57.2		17000000	N	1300 UJ	350 U	750 U	**64 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	1300 U	350 U	**830**	**563**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	1300 U	350 U	42.1	48.4
BENZO(A)ANTHRACENE	108		1500	C	1300 UJ	350 U	750 U	490 U
BENZO(A)PYRENE	150		150	C	1300 UJ	350 U	750 U	490 U
BENZO(B)FLUORANTHENE	NA		1500	C	1300 UJ	350 U	330 J	300 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	1300 UJ	350 U	750 U	140 J
BENZO(K)FLUORANTHENE	240		15000	C	1300 UJ	350 U	99 J	**300 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	1300 UJ	350 U	**220 J**	**360 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	1300 UJ	350 U	750 U	490 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	1300 UJ	350 U	400 J	**620**
FLUORENE	77.4		2300000	N	1300 UJ	350 U	750 U	490 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	1300 UJ	350 U	**79 J**	**150 J**
NAPHTHALENE	176		36000	C	1300 UJ	350 U	750 U	490 U
PHENANTHRENE	204		1700000	N[8]	1300 UJ	350 U	750 U	**250 J**
PYRENE	195		1700000	N	1300 UJ	350 UJ	**390 J**	**660**
TOTAL PAHS	1610		NA		0 U	0 U	1518	**2844**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	65 UJ	22 U	37 U	24 U
AROCLOR-1254	59.8	[9]	1100	N[10]	65 UJ	22 U	37 U	24 U
AROCLOR-1260	59.8	[9]	2200	C	65 UJ	22 U	37 U	21 J
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	0 U	21

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-71	SD-72	SD-73	SD-74
SAMPLE ID				SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS
SAMPLE DATE				20081111	20081112	20081111	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.4 B	0.13 UL	0.22 UL	0.61 L
ARSENIC	9.8	3.9	C	**10.3 J**	**4.7**	**6.4**	**5.4**
BARIUM	130 [15]	15000	N	53.1 J	17.2 J	22.4	64.8
BERYLLIUM	NA	160	N	2 J	1 J	1.8	1.8
CADMIUM	0.99	70	N	**3.6 J**	0.0079 UL	0.3	**2.7**
CHROMIUM	43.4	120000	N[12]	**102 J**	25.4 J	**57.2**	**67.6**
COBALT	50	23	N	17.1 J	3 J	11.9	12.8
COPPER	31.6	3100	N	**129 J**	21.2 J	22.6	**67.1**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**99.1 J**	7.2 J	13.5	**58.4**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.33 J**	0.024 B	0.038 B	**0.3**
MOLYBDENUM	NA	390	N	1.2 B	0.64 J	2.2	0.74
NICKEL	22.7	1500	N	**35.2 J**	9.4 J	**35.3**	**23.1**
SELENIUM	2	390	N	1.4 J	0.64 J	0.72 UL	0.46 UL
SILVER	1	390	N	**1.5 J**	0.084 UL	0.14 U	**4.3**
THALLIUM	21.3 [16]	NA		0.65 UJ	0.23 U	0.38 U	0.24 U
VANADIUM	57 [15]	390	N	55.3 J	46.1 J	42 K	34.2 K
ZINC	121	23000	N	**342 J**	26 J	71.8	90.3
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	77	44	68
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	1600	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-75	SD-76	SD-77	SD-79
SAMPLE ID					SD-75-SS	SD-76-SS	SD-77-SS	SD-79-SS
SAMPLE DATE					20081112	20081111	20081110	20081114
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	490 U	5200 U	3200 U	790 U
2-METHYLNAPHTHALENE	20.2		310000	N	490 U	5200 U	3200 U	790 U
ACENAPHTHENE	6.7		3400000	N	**130 J**	5200 U	3200 U	790 U
ACENAPHTHYLENE	5.9		3400000	N[7]	490 U	5200 U	3200 U	790 U
ANTHRACENE	57.2		17000000	N	**280 J**	5200 U	**500 J**	790 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**2165**	**5664**	**4021**	790 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**1920**	**204**	**661**	790 U
BENZO(A)ANTHRACENE	108		1500	C	**1400**	5200 U	3200 U	790 U
BENZO(A)PYRENE	150		150	C	**1500**	5200 U	3200 U	790 U
BENZO(B)FLUORANTHENE	NA		1500	C	**1800 J**	1300 J	**4800 J**	790 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**850**	**580 J**	**1600 J**	790 U
BENZO(K)FLUORANTHENE	240		15000	C	**1600**	**1500 J**	**1700 J**	790 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**1800**	**1700 J**	**4200**	790 U
DIBENZO(A,H)ANTHRACENE	33		150	C	490 U	5200 U	3200 U	790 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**2400**	**2700 J**	**6800**	790 U
FLUORENE	77.4		2300000	N	**110 J**	5200 U	3200 U	790 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**820**	**570 J**	**1600 J**	790 U
NAPHTHALENE	176		36000	C	490 U	5200 U	3200 U	790 U
PHENANTHRENE	204		1700000	N[8]	**1500**	5200 U	**2800 J**	790 U
PYRENE	195		1700000	N	**3400 J**	**3100 J**	**7100**	790 U
TOTAL PAHS	1610		NA		**17590**	**11450**	**31100**	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	30 U	52 U	32 U	39 U
AROCLOR-1254	59.8	[9]	1100	N[10]	30 U	52 U	32 U	39 U
AROCLOR-1260	59.8	[9]	2200	C	**530 J**	**83**	**170 J**	39 U
TOTAL AROCLOR	59.8		2200	C[11]	**530**	**83**	**170**	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-75	SD-76	SD-77	SD-79
SAMPLE ID				SD-75-SS	SD-76-SS	SD-77-SS	SD-79-SS
SAMPLE DATE				20081112	20081111	20081110	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	1.3 J	1.2 L	0.94 L	0.32 B
ARSENIC	9.8	3.9	C	**5.5**	**10.8**	**5**	**6.5**
BARIUM	130 [15]	15000	N	38.9 J	48.4	112	37.8
BERYLLIUM	NA	160	N	0.83 J	1.6	1	1.2
CADMIUM	0.99	70	N	**2.6**	**3.5**	**14.7**	**1.8**
CHROMIUM	43.4	120000	N[12]	**65.2 J**	**65.6**	**145**	**43.6**
COBALT	50	23	N	10 J	16.2	7.6	12.7
COPPER	31.6	3100	N	**84.2 J**	**105**	**101**	30.6
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**79.9**	**97.5**	**191**	28.2
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.25**	**0.24**	**0.64**	0.096
MOLYBDENUM	NA	390	N	1.9	1.4	1.6	0.73 B
NICKEL	22.7	1500	N	**23.4 J**	**32.8**	**32.5**	21.6
SELENIUM	2	390	N	2	1 UL	1.5 K	0.79 U
SILVER	1	390	N	**1.9**	1	**15.7**	0.15 U
THALLIUM	21.3 [16]	NA		0.31 U	0.53 U	0.63 U	0.41 U
VANADIUM	57 [15]	390	N	29.7 J	50.4 K	53.5 K	35.9
ZINC	121	23000	N	**224 J**	**360**	**275**	94.2
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		55	32	52	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-80	SD-81	SD-82	SD-83
SAMPLE ID					SD-80-SS	SD-81-SS	SD-82-SS	SD-83-SS
SAMPLE DATE					20081114	20081114	20081114	20100820
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	920 U	460 U	930 U	NA
2-METHYLNAPHTHALENE	20.2		310000	N	920 U	460 U	930 U	NA
ACENAPHTHENE	6.7		3400000	N	920 U	460 U	930 U	11 U
ACENAPHTHYLENE	5.9		3400000	N[7]	920 U	460 U	930 U	13 U
ANTHRACENE	57.2		17000000	N	920 U	460 U	930 U	46 J
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	920 U	**530**	930 U	**466.3**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	920 U	0.73	930 U	**466**
BENZO(A)ANTHRACENE	108		1500	C	920 U	460 U	930 U	**160**
BENZO(A)PYRENE	150		150	C	920 U	460 U	930 U	**160**
BENZO(B)FLUORANTHENE	NA		1500	C	920 U	460 U	930 U	290
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	920 U	460 U	930 U	**310**
BENZO(K)FLUORANTHENE	240		15000	C	920 U	65 J	930 U	23 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	920 U	84 J	930 U	**180**
DIBENZO(A,H)ANTHRACENE	33		150	C	920 U	460 U	930 U	**230**
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	920 U	100 J	160 J	290
FLUORENE	77.4		2300000	N	920 U	460 U	930 U	15 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	920 U	460 U	930 U	**310**
NAPHTHALENE	176		36000	C	920 U	460 U	930 U	9.8 U
PHENANTHRENE	204		1700000	N[8]	920 U	460 U	930 U	140
PYRENE	195		1700000	N	920 U	150 J	930 U	**290**
TOTAL PAHS	1610		NA		0 U	399	160	**2406**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	46 U	230 UJ	840 UJ	1.1 U
AROCLOR-1254	59.8	[9]	1100	N[10]	46 U	230 UJ	840 UJ	1.6 U
AROCLOR-1260	59.8	[9]	2200	C	46 U	52	**200**	35
TOTAL AROCLOR	59.8		2200	C[11]	0 U	52	**200**	35

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-80	SD-81	SD-82	SD-83
SAMPLE ID				SD-80-SS	SD-81-SS	SD-82-SS	SD-83-SS
SAMPLE DATE				20081114	20081114	20081114	20100820
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.27 UJ	0.15 B	0.29 UJ	0.2 B
ARSENIC	9.8	3.9	C	**8.7**	1.5	**9.1**	1.8 L
BARIUM	130 [15]	15000	N	43.2	6.2	32.1	NA
BERYLLIUM	NA	160	N	1.7	0.19	1	0.59
CADMIUM	0.99	70	N	0.016 U	**1.1**	**6.4**	0.39 L
CHROMIUM	43.4	120000	N[12]	36.2	19.9	**129**	12.1
COBALT	50	23	N	14.9	3.2	13.6	NA
COPPER	31.6	3100	N	20	19.9	**135**	23.2 L
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		16.9	23.7	**98.1**	**67.6**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.038	0.067	**0.35**	0.035
MOLYBDENUM	NA	390	N	0.63 B	0.23 B	0.9 B	NA
NICKEL	22.7	1500	N	**24.1**	4.8	**26.1**	11.6 L
SELENIUM	2	390	N	1.4	0.46 U	0.94 U	0.39 L
SILVER	1	390	N	0.17 U	0.2 B	1.3 B	0.069
THALLIUM	21.3 [16]	NA		0.47 U	0.24 U	0.49 U	0.049 J
VANADIUM	57 [15]	390	N	47.5	6.5	32.9	NA
ZINC	121	23000	N	72.6	52.2	**246**	81.5 L
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	6710
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-84	SD-85	SD-86	SD-87
SAMPLE ID				SD-84-SS	SD-85-SS	SD-86-SS	SD-87-SS
SAMPLE DATE				20100820	20100819	20100818	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**540**	**22 J**	**84 J**	**85 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	**790**	**140**	**120 J**	**120 J**
ANTHRACENE	57.2	17000000	N	**2300**	**170**	**350**	**300**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**6326**	**875**	**2702**	**2392**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**6325**	**875**	**2702**	**2391**
BENZO(A)ANTHRACENE	108	1500	C	**5000**	**390**	**1600**	**1200**
BENZO(A)PYRENE	150	150	C	**4400**	**450**	**1500**	**1300**
BENZO(B)FLUORANTHENE	NA	1500	C	**4700**	540	**2600**	**2100**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**2900**	**550**	**1700**	**1400**
BENZO(K)FLUORANTHENE	240	15000	C	22 U	190	41 U	45 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**5400**	**520**	**1700**	**1400**
DIBENZO(A,H)ANTHRACENE	33	150	C	**720**	**280**	**630**	**630**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**10000**	**570**	**2700**	**1700**
FLUORENE	77.4	2300000	N	**1400**	43 J	**100 J**	67 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**2300**	**500**	**1500**	**1300**
NAPHTHALENE	176	36000	C	**200**	29 J	52 J	62 J
PHENANTHRENE	204	1700000	N[8]	**12000**	**290**	**1500**	**830**
PYRENE	195	1700000	N	**11000**	**770**	**3300**	**2000**
TOTAL PAHS	1610	NA		**63650**	**5454**	**19436**	**14494**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1 U	1.1 U	1.9 U	2.1 U
AROCLOR-1254	59.8 [9]	1100	N[10]	1.5 U	1.6 U	2.9 U	3.1 U
AROCLOR-1260	59.8 [9]	2200	C	**83**	35	**290 J**	**380**
TOTAL AROCLOR	59.8	2200	C[11]	**83**	35	**290**	**380**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-84	SD-85	SD-86	SD-87
SAMPLE ID				SD-84-SS	SD-85-SS	SD-86-SS	SD-87-SS
SAMPLE DATE				20100820	20100819	20100818	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	**2320 L**	1.1 L	1.9 J	1 L
ARSENIC	9.8	3.9	C	**11 L**	3.4 L	**6**	**6.2**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.2 L	0.77	1.4 J	1.3
CADMIUM	0.99	70	N	**29.5 L**	**8.5 L**	**41.2**	**32.9**
CHROMIUM	43.4	120000	N[12]	**76.6**	**55.3**	**296 K**	**277**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**37 L**	16.9 L	**97.1**	**108**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**31500**	**53.1**	**202**	**142 K**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.19**	0.081	**0.27**	**0.3**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	13.4 L	16.6 L	**35.5**	**32.8**
SELENIUM	2	390	N	0.83 L	0.47 L	1.3	1.2
SILVER	1	390	N	**2.2 L**	0.16	**2.7 J**	**1.4**
THALLIUM	21.3 [16]	NA		0.12	0.059 J	0.17	0.2
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**163 L**	**127 L**	**595**	**524**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		7230 L	9890	NA	58100
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	1.5	NA	18.4
CADMIUM	NA	NA		NA	0.085 J	NA	0.25
CHROMIUM	NA	NA		NA	0.61 J	NA	1.6
COPPER	NA	NA		NA	0.12	NA	0.011 B
LEAD	NA	NA		NA	0.16 J	NA	0.52
NICKEL	NA	NA		NA	0.096 J	NA	0.14
SILVER	NA	NA		NA	0.00072	NA	0.00036 U
ZINC	NA	NA		NA	1.2 J	NA	6.8

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-88	SD-89	SD-90	SD-91
SAMPLE ID					SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE					20100819	20100819	20100817	20100817
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	**120**	**38 J**	**62 J**	2.3 U
ACENAPHTHYLENE	5.9		3400000	N[7]	**210**	**110 J**	**120 J**	2.7 U
ANTHRACENE	57.2		17000000	N	**320**	**160 J**	**190 J**	2.3 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1630**	**572**	**1737**	3.4
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**1630**	**565**	**1737**	0.56
BENZO(A)ANTHRACENE	108		1500	C	**890**	**390 J**	**810 J**	5.6 J
BENZO(A)PYRENE	150		150	C	**920**	**400 J**	**1100 J**	2.4 U
BENZO(B)FLUORANTHENE	NA		1500	C	**1700**	760 J	**2000 J**	3.7 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**880**	**550 J**	**1100 J**	2.4 U
BENZO(K)FLUORANTHENE	240		15000	C	22 U	23 UJ	12 UJ	4.8 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**1100**	**460 J**	**1200 J**	2.8 U
DIBENZO(A,H)ANTHRACENE	33		150	C	**370**	13 UJ	**270 J**	2.6 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**1800**	**750 J**	**2500 J**	8 J
FLUORENE	77.4		2300000	N	**100 J**	62 J	**82 J**	3.1 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**800**	**500 J**	**850 J**	2.4 U
NAPHTHALENE	176		36000	C	140	95 J	88 J	2 U
PHENANTHRENE	204		1700000	N[8]	**630**	**270 J**	**650 J**	3.8 U
PYRENE	195		1700000	N	**1500**	**670 J**	**1600 J**	6.2 J
TOTAL PAHS	1610		NA		**11480**	**5215**	**12622**	19.8
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	2.5 U	2.7 UJ	2.9 UJ	1.1 U
AROCLOR-1254	59.8	[9]	1100	N[10]	3.7 U	4.1 UJ	4.4 UJ	1.7 U
AROCLOR-1260	59.8	[9]	2200	C	**6600**	**1800 J**	**690 J**	1.7 U
TOTAL AROCLOR	59.8		2200	C[11]	**6600**	**1800**	**690**	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-88	SD-89	SD-90	SD-91
SAMPLE ID				SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE				20100819	20100819	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.75 J	0.9 J	1.4 J	0.2 J
ARSENIC	9.8	3.9	C	**7.8 L**	**9.8 J**	**8.9 J**	3.6
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.8 L	2.1 J	1.8 J	2.4
CADMIUM	0.99	70	N	**19.3 J**	**11.9 J**	**5.2 J**	0.18
CHROMIUM	43.4	120000	N[12]	**336 L**	**251 J**	**110 J**	21
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**94.2 L**	**118 J**	**116 J**	21.7
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**170**	**147 J**	**111 J**	6.6 J
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**1.1**	**0.76 J**	**0.43 J**	0.0078 U
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**40.3 L**	**42.9 J**	**36.4 J**	15
SELENIUM	2	390	N	1.9 L	2 J	1.8 J	0.76
SILVER	1	390	N	**7.2 L**	**5.6 J**	**2.8 J**	0.029 J
THALLIUM	21.3 [16]	NA		0.29 K	0.32 J	0.24 J	0.084 J
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**404 L**	**415 J**	**382 J**	40.2
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		31600	28600	28000 J	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		3.3	11.9	22.6 J	NA
CADMIUM	NA	NA		0.15	0.087	0.034 J	NA
CHROMIUM	NA	NA		2.5	1.7	0.71 J	NA
COPPER	NA	NA		0.53	0.68	0.086 J	NA
LEAD	NA	NA		0.63	0.5	0.36 J	NA
NICKEL	NA	NA		0.19	0.16	0.17 J	NA
SILVER	NA	NA		0.011	0.0093	0.0005 UJ	NA
ZINC	NA	NA		4.1	4	3.9 J	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-92	SD-93	SD-94	SD-95
SAMPLE ID				SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS
SAMPLE DATE				20100817	20100817	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	1.2 U	3.9 J	4.5 U	**26 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	1.4 U	**8.7 J**	5.3 U	**33 J**
ANTHRACENE	57.2	17000000	N	2.6 J	15 J	4.6 U	**73 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	15.7	136	37.2	**552**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	15.0	136	34.6	**552**
BENZO(A)ANTHRACENE	108	1500	C	8.7 J	55	16 J	**250 J**
BENZO(A)PYRENE	150	150	C	9.4 J	60	22 J	**290 J**
BENZO(B)FLUORANTHENE	NA	1500	C	14	130	27 J	560 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	29	78	67	**340 J**
BENZO(K)FLUORANTHENE	240	15000	C	2.5 U	3.8 U	9.7 J	10 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	9.1 J	75	21 J	**310 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	1.4 U	**49**	5.2 U	**150 J**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	16	110	41 J	**470 J**
FLUORENE	77.4	2300000	N	2.2 J	5.3 J	6.1 U	29 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**33**	**80**	**82**	**310 J**
NAPHTHALENE	176	36000	C	2.8 J	5.1 J	4 U	48 J
PHENANTHRENE	204	1700000	N[8]	7.2 J	36	7.4 U	180 J
PYRENE	195	1700000	N	18	100	28 J	**520 J**
TOTAL PAHS	1610	NA		152	811	313.7	**3589**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.5 U	1.1 U	2.2 U	3 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	2.2 U	1.7 U	3.3 U	4.5 UJ
AROCLOR-1260	59.8 [9]	2200	C	2.2 U	**73**	44	**720 J**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	**73**	44	**720**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-92	SD-93	SD-94	SD-95
SAMPLE ID				SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS
SAMPLE DATE				20100817	20100817	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.13 B	0.27 L	0.11 J	0.57 J
ARSENIC	9.8	3.9	C	3.9	**4.2**	**4.6**	**8.4 J**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.5	0.81	1.7	1.9 J
CADMIUM	0.99	70	N	0.21	**1.1**	0.88	**7.7 J**
CHROMIUM	43.4	120000	N[12]	15	17.9	30.9	**165 J**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	12.8	21.8	25.1	**96.9 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		5.1 K	21.5 K	15.9 J	**118 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.024 J	0.048	0.056	**0.54 J**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	12.5	10.4	20.2	**37.6 J**
SELENIUM	2	390	N	0.68	0.42	1.2	1.7 J
SILVER	1	390	N	0.033 J	0.19	0.15	**3.7 J**
THALLIUM	21.3 [16]	NA		0.066 J	0.053 J	0.16 J	0.25 J
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	40.4	100	77.3	**360 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-96	SD-97	SD-98	SD-99
SAMPLE ID					SD-96-SS	SD-97-SS	SD-98-SS	SD-99-SS
SAMPLE DATE					20100819	20100817	20100819	20100819
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	**38 J**	6.9 UJ	**38 J**	8.3 U
ACENAPHTHYLENE	5.9		3400000	N[7]	**110 J**	**38 J**	**100 J**	9.9 U
ANTHRACENE	57.2		17000000	N	**170 J**	49 J	**170**	8.5 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**722**	**369**	**811**	8.7 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**715**	**369**	**810**	8.7 U
BENZO(A)ANTHRACENE	108		1500	C	**380 J**	**130 J**	**300**	11 U
BENZO(A)PYRENE	150		150	C	**500 J**	**170 J**	**400**	8.7 U
BENZO(B)FLUORANTHENE	NA		1500	C	1100 J	320 J	820	14 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**730 J**	**250 J**	**530**	8.6 U
BENZO(K)FLUORANTHENE	240		15000	C	28 UJ	14 UJ	22 U	18 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**530 J**	**190 J**	**430**	10 U
DIBENZO(A,H)ANTHRACENE	33		150	C	15 UJ	**130 J**	**250**	9.6 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**870 J**	370 J	**660**	9.3 U
FLUORENE	77.4		2300000	N	63 J	23 J	60 J	11 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**660 J**	**240 J**	**480**	8.9 U
NAPHTHALENE	176		36000	C	100 J	53 J	92 J	7.5 U
PHENANTHRENE	204		1700000	N[8]	**330 J**	120 J	**260**	14 U
PYRENE	195		1700000	N	**770 J**	**250 J**	**690**	8.8 U
TOTAL PAHS	1610		NA		**6351**	**2333**	**5280**	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	3.3 UJ	3.4 UJ	2.6 U	2 U
AROCLOR-1254	59.8	[9]	1100	N[10]	4.9 UJ	5.1 UJ	3.9 U	3 U
AROCLOR-1260	59.8	[9]	2200	C	**1800 J**	**620 J**	**2700 J**	14 J
TOTAL AROCLOR	59.8		2200	C[11]	**1800**	**620**	**2700**	14

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-96	SD-97	SD-98	SD-99
SAMPLE ID				SD-96-SS	SD-97-SS	SD-98-SS	SD-99-SS
SAMPLE DATE				20100819	20100817	20100819	20100819
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.55 J	0.71 J	0.8 J	0.099 B
ARSENIC	9.8	3.9	C	**9.7 J**	**10.9 J**	**10.1 L**	**4.7**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.7 J	2.1 J	1.9 L	1.7
CADMIUM	0.99	70	N	**5.2 J**	**6.7 J**	**7.7 J**	0.61 L
CHROMIUM	43.4	120000	N[12]	**120 J**	**171 J**	**167 L**	29.6
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**130 J**	**145 J**	**129 L**	21 L
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**112 J**	**141 J**	**131**	14.3
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.51 J**	**0.52 J**	**0.54**	0.039 J
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**35.1 J**	**43 J**	**39.7 L**	21.2 L
SELENIUM	2	390	N	1.9 J	**2.1 J**	1.8 L	0.99 L
SILVER	1	390	N	**2 J**	**2.3 J**	**3.2 L**	0.091 J
THALLIUM	21.3 [16]	NA		0.24 J	0.27 J	0.28 K	0.19 K
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**350 J**	**415 J**	**375 L**	69.7
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	31300
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	0.41 U
CADMIUM	NA	NA		NA	NA	NA	0.0035
CHROMIUM	NA	NA		NA	NA	NA	0.064
COPPER	NA	NA		NA	NA	NA	0.12
LEAD	NA	NA		NA	NA	NA	0.037
NICKEL	NA	NA		NA	NA	NA	0.077
SILVER	NA	NA		NA	NA	NA	0.00035 U
ZINC	NA	NA		NA	NA	NA	0.43

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-100	SD-101	SD-102	SD-103
SAMPLE ID					SD-100-SS	SD-101-SS	SD-102-SS	SD-103-SS
SAMPLE DATE					20100819	20100818	20100818	20100818
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SS	SS	SS	SS
TOP DEPTH					0	0	0	0
BOTTOM DEPTH					6	6	6	6
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	**10 J**	**18 J**	11 UJ	2.9 U
ACENAPHTHYLENE	5.9		3400000	N[7]	**50**	**53 J**	14 UJ	3.5 U
ANTHRACENE	57.2		17000000	N	47	**87 J**	29 J	5.6 J
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**291**	**313**	**163**	39.9
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**291**	**305**	**157**	38.2
BENZO(A)ANTHRACENE	108		1500	C	**170**	**220 J**	85 J	25 J
BENZO(A)PYRENE	150		150	C	**160**	**200 J**	99 J	24 J
BENZO(B)FLUORANTHENE	NA		1500	C	300	420 J	200 J	41
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	150	**400 J**	**240 J**	66
BENZO(K)FLUORANTHENE	240		15000	C	5.1 U	28 UJ	24 UJ	16 J
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	160	**220 J**	120 J	26 J
DIBENZO(A,H)ANTHRACENE	33		150	C	**70**	15 UJ	13 UJ	3.4 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	250	340 J	170 J	37
FLUORENE	77.4		2300000	N	19 J	37 J	16 UJ	4 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**140**	**410 J**	**290 J**	**74**
NAPHTHALENE	176		36000	C	20 J	58 J	10 UJ	2.6 U
PHENANTHRENE	204		1700000	N[8]	97	150 J	66 J	9.7 J
PYRENE	195		1700000	N	**210**	**350 J**	170 J	32
TOTAL PAHS	1610		NA		**1853**	**2963**	1469	356.3
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	1.2 U	3.2 UJ	2.8 UJ	1.4 U
AROCLOR-1254	59.8	[9]	1100	N[10]	1.8 U	4.9 UJ	4.2 UJ	2.2 U
AROCLOR-1260	59.8	[9]	2200	C	**99**	**190 J**	**200 J**	2.2 U
TOTAL AROCLOR	59.8		2200	C[11]	**99**	**190**	**200**	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-100 SD-100-SS 20100819 NORMAL SD NORMAL SS 0 6	SD-101 SD-101-SS 20100818 NORMAL SD NORMAL SS 0 6	SD-102 SD-102-SS 20100818 NORMAL SD NORMAL SS 0 6	SD-103 SD-103-SS 20100818 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.15 J	0.61 J	0.83 J	0.22 J
ARSENIC	9.8	3.9	C	2.1 L	**10 J**	**10.2 J**	**4.2**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	0.38 L	1.7 J	1.8 J	0.78 J
CADMIUM	0.99	70	N	**3.6 J**	**4.6 J**	**4.6 J**	0.47
CHROMIUM	43.4	120000	N[12]	42.7 L	**133 J**	**136 J**	22
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	17.5 L	**156 J**	**151 J**	16.5
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		32.2	**120 J**	**123 J**	13.1
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	0.15	**0.45 J**	**0.5 J**	0.039
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	8.7 L	**37.7 J**	**37.3 J**	12.8
SELENIUM	2	390	N	0.48 L	1.8 J	1.8 J	0.64
SILVER	1	390	N	0.46 L	**1.6 J**	**1.7 J**	0.064 J
THALLIUM	21.3 [16]	NA		0.08 K	0.24 J	0.26 J	0.12
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	80.9 L	**350 J**	**337 J**	52.4
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	50300 J	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	44.6 J	NA	NA
CADMIUM	NA	NA		NA	0.033 J	NA	NA
CHROMIUM	NA	NA		NA	1 J	NA	NA
COPPER	NA	NA		NA	0.48 J	NA	NA
LEAD	NA	NA		NA	0.44 J	NA	NA
NICKEL	NA	NA		NA	0.2 J	NA	NA
SILVER	NA	NA		NA	0.0011 J	NA	NA
ZINC	NA	NA		NA	3.7 J	NA	NA

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-104	SD-104	SD-104	SD-105
SAMPLE ID				SD-104-SS	SD-104-SS-AVG	SD-104-SS-D	SD-105-SS
SAMPLE DATE				20100818	20100818	20100818	20100818
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SS	SS	SS	SS
TOP DEPTH				0	0	0	0
BOTTOM DEPTH				6	6	6	6
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	1.8 U	**6.95 J**	**13 J**	**16 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	**15 J**	**15.5 J**	**16 J**	**21 J**
ANTHRACENE	57.2	17000000	N	26	31.5 J	37 J	51 J
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	123	**170**	**217**	**342**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	123	**170**	**217**	**342**
BENZO(A)ANTHRACENE	108	1500	C	60	69	78	**150 J**
BENZO(A)PYRENE	150	150	C	56	69	82	**170 J**
BENZO(B)FLUORANTHENE	NA	1500	C	130	120	110	350 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	71 J	110.5 J	150 J	**220 J**
BENZO(K)FLUORANTHENE	240	15000	C	3.8 U	6.9 U	10 U	9.2 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	71	85.5	100	**200 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	**41 J**	**70.5 J**	**100 J**	**100 J**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	130	140	150	230 J
FLUORENE	77.4	2300000	N	21	28.5 J	36 J	27 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**72 J**	**116 J**	**160 J**	**220 J**
NAPHTHALENE	176	36000	C	42	56.5	71	42 J
PHENANTHRENE	204	1700000	N[8]	79	104.5	130	120 J
PYRENE	195	1700000	N	110	140	170	**350 J**
TOTAL PAHS	1610	NA		924	1163.95	1403	**2267**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.2 U	2.25 U	2.3 U	2.7 UJ
AROCLOR-1254	59.8 [9]	1100	N[10]	3.4 U	3.45 U	3.5 U	4 UJ
AROCLOR-1260	59.8 [9]	2200	C	30	25 J	20 J	**170 J**
TOTAL AROCLOR	59.8	2200	C[11]	30	25	20	**170**

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-104 SD-104-SS 20100818 ORIG SD NORMAL SS 0 6	SD-104 SD-104-SS-AVG 20100818 AVG SD NORMAL SS 0 6	SD-104 SD-104-SS-D 20100818 DUP SD NORMAL SS 0 6	SD-105 SD-105-SS 20100818 NORMAL SD NORMAL SS 0 6
METALS (MG/KG)							
ANTIMONY	2	31	N	0.5 J	0.545 J	0.59 J	0.64 J
ARSENIC	9.8	3.9	C	**9**	**9.35**	**9.7**	**37.2 J**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.8 J	1.9 J	2 J	1.7 J
CADMIUM	0.99	70	N	**8.8**	**7.95**	**7.1**	**3 J**
CHROMIUM	43.4	120000	N[12]	**236 K**	**233 K**	**230 K**	**150 J**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**60.4**	**62.4**	**64.4**	**183 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
IRON	20000	55000	N	NA	NA	NA	NA
LEAD	35.8	400		**117**	**123.5**	**130**	**114 J**
MANGANESE	460	1800	N	NA	NA	NA	NA
MERCURY	0.18	23	N[14]	**0.5**	**0.48**	**0.46**	**0.41 J**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**34.4**	**35.9**	**37.4**	**37.4 J**
SELENIUM	2	390	N	1.9	**2.05**	**2.2**	1.8 J
SILVER	1	390	N	**2 J**	**1.85 J**	**1.7 J**	**1.3 J**
THALLIUM	21.3 [16]	NA		0.24	0.25	0.26	0.23 J
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**238**	**243**	**248**	**334 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	**Ecological Screening Value (ESV)[1][3]**	**Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]**		**SD-106 SD-106-SS 20100818 NORMAL SD NORMAL SS 0 6**
VOLATILES (UG/KG)				
1,3-DICHLOROBENZENE	4430	NA		NA
1,4-DICHLOROBENZENE	599	24000	C	NA
2-BUTANONE	25710 [4]	28000000	N	NA
ACETONE	60030 [4]	61000000	N	NA
CARBON DISULFIDE	0.851	820000	N	NA
CHLOROBENZENE	8.42	290000	N	NA
CHLOROMETHANE	17800 [4]	120000	N	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA
ISOPROPYLBENZENE	86	2100000	N	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA
NAPHTHALENE	176	36000	C	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA
TOLUENE	2880 [4]	5000000	N	NA
SEMIVOLATILES (UG/KG)				
1,2-DICHLOROBENZENE	16.5	1900000	N	NA
1,3-DICHLOROBENZENE	4430	NA		NA
1,4-DICHLOROBENZENE	599	24000	C	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA
ACENAPHTHENE	6.7	3400000	N	9.5 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**17 J**
ANTHRACENE	57.2	17000000	N	29 J
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	46.2
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	35.7
BENZO(A)ANTHRACENE	108	1500	C	57 J
BENZO(A)PYRENE	150	150	C	9.9 U
BENZO(B)FLUORANTHENE	NA	1500	C	69 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	9.8 U
BENZO(K)FLUORANTHENE	240	15000	C	20 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA
CARBAZOLE	NA	NA		NA
CHRYSENE	166	150000	C	52 J
DIBENZO(A,H)ANTHRACENE	33	150	C	11 U
DIBENZOFURAN	415	78000	N	NA
FLUORANTHENE	423	2300000	N	110
FLUORENE	77.4	2300000	N	13 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**230**
NAPHTHALENE	176	36000	C	59 J
PHENANTHRENE	204	1700000	N[8]	110
PYRENE	195	1700000	N	90 J
TOTAL PAHS	1610	NA		823
PCBS (UG/KG)				
AROCLOR-1248	59.8 [9]	2200	C	2.3 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.5 U
AROCLOR-1260	59.8 [9]	2200	C	3.5 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U

Table 4-2
Detected Concentrations Table for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	**Ecological Screening Value (ESV)[1][3]**	**Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]**		**SD-106 SD-106-SS 20100818 NORMAL SD NORMAL SS 0 6**
METALS (MG/KG)				
ANTIMONY	2	31	N	0.28 J
ARSENIC	9.8	3.9	C	**9.3 L**
BARIUM	130 [15]	15000	N	NA
BERYLLIUM	NA	160	N	1.9 L
CADMIUM	0.99	70	N	0.83 J
CHROMIUM	43.4	120000	N[12]	**44.6 L**
COBALT	50	23	N	NA
COPPER	31.6	3100	N	**41.1 L**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA
IRON	20000	55000	N	NA
LEAD	35.8	400		**52.8**
MANGANESE	460	1800	N	NA
MERCURY	0.18	23	N[14]	0.17
MOLYBDENUM	NA	390	N	NA
NICKEL	22.7	1500	N	**31.1 L**
SELENIUM	2	390	N	1.7 L
SILVER	1	390	N	0.22 L
THALLIUM	21.3 [16]	NA		0.29 K
VANADIUM	57 [15]	390	N	NA
ZINC	121	23000	N	**122 L**
METALS (UG/KG)				
DIBUTYLTIN	NA	NA		NA
MISCELLANEOUS PARAMETERS (%)				
PERCENT SOLIDS	NA	NA		NA
MISCELLANEOUS PARAMETERS (MG/KG)				
TOTAL ORGANIC CARBON	NA	NA		NA
AVS/SEM (UMOLES/G)				
ACID VOLATILE SULFIDE	NA	NA		NA
CADMIUM	NA	NA		NA
CHROMIUM	NA	NA		NA
COPPER	NA	NA		NA
LEAD	NA	NA		NA
NICKEL	NA	NA		NA
SILVER	NA	NA		NA
ZINC	NA	NA		NA

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).
2 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.
3 - Concentrations exceeding the ESV are shaded black with white font. Concentrations exceeding the adjusted RSL for residential soil are shaded blue with black font. Concentrations exceeding both the ESV and the RSL are shaded red with white font.
4 - TCEQ Ecological Benchmarks for Sediment, January 2006.
5 - Value for trans-1,2-dichloroethene used as a surrogate for cis-1,2-dichloroethene.
6 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.
7 - The value for acenapthene is used as a surrogate for acenaphthylene.
8 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
9 - Value for Total PCBs used as a surrogate for Aroclor-1248, Aroclor-1254 and Aroclor-1260.
10 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.
11 - The value is for high risk PCBs.
12 - The value is for trivalent chromium.
13 - The value is for hexavalent chromium.
14 - The value is for mercuric chloride.
15 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
16 - Value is for marine sediment.

Definitions:
B = Blank contamination
C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available
R = Rejected
SD = Sediment
SS = Surface sediment
U = Non-detected

Table 4-3
Occurrence and Distribution of Chemicals - Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Volatile Organics (ug/kg)												
1,3-DICHLOROBENZENE	1/41	2 J	2 J	SD-22	5.9	24	2.0	7.8	4430	0	NA	0
1,4-DICHLOROBENZENE	4/41	1 J	3 J	SD-22	5.9	24	1.8	7.1	599	0	24000 C	0
2-BUTANONE	3/18	17 J	23 J	SD-13, SD-19	12	120	21	20	25710 [6]	0	28000000 N	0
ACETONE	6/38	7.1 J	150 J	SD-40	13	240	82	50	60030 [6]	0	61000000 N	0
CARBON DISULFIDE	2/40	9.1 J	12 J	SD-29	5.9	24	11	8.2	0.851	2	820000 N	0
CHLOROBENZENE	1/41	3 J	3 J	SD-22	5.9	24	3.0	7.8	8.42	0	290000 N	0
CHLOROMETHANE	1/41	13 J	13 J	SD-35	12	49	13	16	17800 [6]	0	120000 N	0
METHYL TERT-BUTYL ETHER	24/41	3 J	9 J	SD-23, SD-18, SD-16, SD-32	5.9	36	6.0	6.9	NA	0	430000 C	0
NAPHTHALENE	1/30	7 J	7 J	SD-13	6	24	7.0	8.8	176	0	36000 C	0
TOLUENE	3/41	3 J	10 J	SD-27	5.9	24	5.7	7.9	2880 [6]	0	5000000 N	0
Semivolatile Organics (ug/kg)												
1,3-DICHLOROBENZENE	1/39	420 J	420 J	SD-27	390	1600	420	531	4430	0	NA	0
1,4-DICHLOROBENZENE	8/39	76 J	850 J	SD-27	74	1600	280	386	599	1	24000 C	0
1-METHYLNAPHTHALENE	1/66	39 J	39 J	SD-44	350	6400	39	596	20.2 [7]	1	220000 C	0
2-METHYLNAPHTHALENE	1/77	34 J	34 J	SD-4	350	6400	34	564	20.2	1	310000 N	0
ACENAPHTHENE	21/101	3.9 J	790 J	SD-28	1.2	6400	129	406	6.7	20	3400000 N	0
ACENAPHTHYLENE	19/101	8.7 J	790	SD-84	1.4	6400	114	448	5.9	19	3400000 N[8]	0
ANTHRACENE	44/101	2.6 J	2300	SD-84	2.3	6400	254	443	57.2	34	17000000 N	0
BAP EQUIVALENT-1/2 NON-DETECTS	82/101	3.4	6472	SD-28	8.7	6400	1340	1200	NA	0	150 C	76
BAP EQUIVALENT-POSITIVE RESULTS	82/101	0.17	6472	SD-28	8.7	6400	772	732	NA	0	150 C	61
BENZO(A)ANTHRACENE	59/101	5.6 J	5200 J	SD-28	11	6400	700	665	108	51	1500 C	4
BENZO(A)PYRENE	63/101	9.4 J	4400 J	SD-28, SD-84	2.4	6400	694	652	150	55	150 C	55
BENZO(B)FLUORANTHENE	78/101	14	5800 J	SD-28	3.7	6400	940	843	NA	0	1500 C	12
BENZO(G,H,I)PERYLENE	48/101	29	3100 J	SD-28	2.4	6400	650	601	170	40	1700000 N[9]	0
BENZO(K)FLUORANTHENE	47/101	9.7 J	2700 J	SD-28	2.5	6400	549	446	240	36	15000 C	0
BIS(2-ETHYLHEXYL)PHTHALATE	37/39	78 J	2900 J	SD-32	860	1500	781	771	180	35	350000 C	0
BUTYL BENZYL PHTHALATE	3/39	120 J	190 J	SD-34	390	1600	157	514	10900	0	2600000 C	0
CARBAZOLE	5/39	130 J	990 J	SD-28	390	1600	348	524	NA	0	NA	0
CHRYSENE	77/101	9.1 J	5400	SD-84, SD-28	2.8	6400	805	746	166	67	150000 C	0
DIBENZO(A,H)ANTHRACENE	16/101	41 J	720	SD-84	1.4	6400	294	468	33	16	150 C	10
DIBENZOFURAN	1/39	340 J	340 J	SD-28	390	1600	340	527	415	0	78000 N	0
FLUORANTHENE	84/101	8 J	10000	SD-84	9.3	1400	1190	1060	423	57	2300000 N	0
FLUORENE	26/101	2.2 J	1400	SD-84	3.1	6400	149	438	77.4	12	2300000 N	0
INDENO(1,2,3-CD)PYRENE	54/101	33	3400 J	SD-28	2.4	6400	566	576	17	54	1500 C	4
NAPHTHALENE	20/101	2.8 J	290 J	SD-28	2	6400	87	437	176	3	36000 C	0
PHENANTHRENE	62/101	7.2 J	12000	SD-84	3.8	6400	842	748	204	48	1700000 N[9]	0
PYRENE	82/101	6.2 J	13000 J	SD-28	8.8	6400	1500	1330	195	73	1700000 N	0
TOTAL PAHS	84/101	19.8	63660	SD-28	0	0	7260	6040	1610	63	NA	0
PCBs (ug/kg)												
AROCLOR-1254	1/101	400 J	400 J	SD-43	1.5	11000	400	144	59.8 [10]	1	1100 N[11]	0
AROCLOR-1260	78/101	14 J	54000	SD-9	1.7	79	1790	1380	59.8 [10]	69	2200 C	9
TOTAL AROCLOR	79/101	14	54000	SD-9	0	0	1770	1380	59.8	70	2200 C[12]	9
Metals (mg/kg)												
ANTIMONY	48/103	0.11 J	2320 L	SD-84	0.099	2.1	49.4	23.2	2	4	31 N	1
ARSENIC	103/103	1.5	37.2 J	SD-105	--	--	8.2	8.2	9.8	33	3.9 C	92
BARIUM	68/68	6.2	112	SD-77	--	--	50.2	50.2	130 [16]	0	15000 N	0
BERYLLIUM	103/103	0.19	6.9	SD-69	--	--	1.7	1.7	NA	0	160 N	0
CADMIUM	100/103	0.03695	296	SD-43	0.0078	0.069	11.2	10.9	0.99	86	70 N	1
CHROMIUM	103/103	10.9	699 J	SD-43	--	--	147	147	43.4	85	120000 N[13]	0
COBALT	68/68	3 J	28.5	SD-69	--	--	16.4	16.4	50	0	23 N	3
COPPER	103/103	6.3	183 J	SD-105	--	--	90.8	90.8	31.6	78	3100 N	0
HEXAVALENT CHROMIUM	5/41	0.53 J	13 J	SD-37	0.44	2.5	4.7	1.3	43.4	0	2.9 C[14]	2
LEAD	103/103	3.9	31500	SD-84	--	--	407	407	35.8	85	400	1
MERCURY	97/103	0.00925	3.5 J	SD-30	0.0078	0.038	0.38	0.36	0.18	75	23 N[15]	0
MOLYBDENUM	56/68	0.55	2.3 J	SD-15, SD-40	0.05	1.6	1.4	1.2	NA	0	390 N	0
NICKEL	103/103	4.8	62.8 J	SD-28	--	--	31.8	31.8	22.7	76	1500 N	0
SELENIUM	66/103	0.345 JL	3.1 J	SD-66	0.37	1.9	1.5	1.2	2	16	390 N	0
SILVER	81/103	0.029 J	28.6 J	SD-28	0.081	3.4	2.7	2.2	1	62	390 N	0
THALLIUM	26/103	0.049 J	2.1 J	SD-16	0.22	4	0.27	0.43	21.3 [17]	0	NA	0
VANADIUM	68/68	6.5	120 J	SD-28	--	--	48.4	48.4	57 [16]	24	390 N	0
ZINC	103/103	22.4	636 J	SD-28	--	--	290	290	121	82	23000 N	0
Metals (ug/kg)												
DIBUTYLTIN	3/6	5.5 J	11 J	SD-40	3.3	5.6	8.8	5.5	NA	0	NA	0
Miscellaneous Parameters (%)												
PERCENT SOLIDS	69/69	20	85	SD-3	--	--	39.1	39.1	NA	0	NA	0

Table 4-3
Occurrence and Distribution of Chemicals - Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Miscellaneous Parameters (mg/kg)												
TOTAL ORGANIC CARBON	24/24	1600	58100	SD-87	--	--	31900	31900	NA	0	NA	0
AVS/SEM (umoles/g)												
ACID VOLATILE SULFIDE	6/7	1.5	44.6 J	SD-101	0.41	0.41	17.1	14.6	NA	0	NA	0
CADMIUM	7/7	0.0035	0.25	SD-87	--	--	0.092	0.092	NA	0	NA	0
CHROMIUM	7/7	0.064	2.5	SD-88	--	--	1.2	1.2	NA	0	NA	0
COPPER	6/7	0.086 J	0.68	SD-89	0.011	0.011	0.34	0.29	NA	0	NA	0
LEAD	7/7	0.037	0.63	SD-88	--	--	0.38	0.38	NA	0	NA	0
NICKEL	7/7	0.077	0.2 J	SD-101	--	--	0.15	0.15	NA	0	NA	0
SILVER	4/7	0.00072	0.011	SD-88	0.00035	0.0005	0.0055	0.0032	NA	0	NA	0
ZINC	7/7	0.43	6.8	SD-87	--	--	3.4	3.4	NA	0	NA	0

Notes:

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.

2 - Average of positive analytical results only.

3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).

5 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.

6 - TCEQ Ecological Benchmarks for Sediment, January 2006.

7 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.

8 - The value for acenapthene is used as a surrogate for acenaphthylene.

9 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.

10 - Value for Total PCBs used as a surrogate for Aroclor-1254 and Aroclor-1260.

11 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.

12 - The value is for high risk PCBs.

13 - The value is for trivalent chromium.

14 - The value is for hexavalent chromium.

15 - The value is for mercuric chloride.

16 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.

17 - Value is for marine sediment.

Definitions:

C = Carcinogenic
J = Estimated
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available

Associated Samples:

SD-10-031805	SD-24-SS	SD-45-SS	SD-65-SS	SD-86-SS
SD-100-SS	SD-25-SS	SD-46-SS	SD-66-SS	SD-87-SS
SD-101-SS	SD-26-SS	SD-47-SS	SD-67-SS	SD-88-SS
SD-102-SS	SD-27-SS	SD-48-SS	SD-68-SS	SD-89-SS
SD-103-SS	SD-28-SS	SD-48-SS-D	SD-69-SS	SD-9-031805
SD-104-SS	SD-29-SS	SD-49-SS	SD-69-SS-D	SD-90-SS
SD-104-SS-D	SD-3-031705	SD-5-031805	SD-7-031805	SD-91-SS
SD-105-SS	SD-30-SS	SD-50-SS	SD-70-SS	SD-92-SS
SD-106-SS	SD-31-SS	SD-51-SS	SD-71-SS	SD-93-SS
SD-11-031805	SD-32-SS	SD-53-SS	SD-72-SS	SD-94-SS
SD-12-031805	SD-33-SS	SD-53-SS-D	SD-73-SS	SD-95-SS
SD-13-SS	SD-34-SS	SD-54-SS	SD-74-SS	SD-96-SS
SD-14-SS	SD-35-SS	SD-55-SS	SD-75-SS	SD-97-SS
SD-15-SS	SD-36-SS	SD-56-SS	SD-76-SS	SD-98-SS
SD-16-SS	SD-37-SS	SD-57-SS	SD-77-SS	SD-99-SS
SD-17-SS	SD-38-SS	SD-58-SS	SD-79-SS	
SD-18-SS	SD-39-SS	SD-59-SS	SD-8-031805	
SD-19-SS	SD-4-031705	SD-6-031805	SD-80-SS	
SD-2-031805	SD-40-SS	SD-60-SS	SD-81-SS	
SD-20-SS	SD-41-SS	SD-61-SS	SD-82-SS	
SD-21-SS	SD-42-SS	SD-62-SS	SD-83-SS	
SD-22-SS	SD-43-SS	SD-63-SS	SD-84-SS	
SD-23-SS	SD-44-SS	SD-64-SS	SD-85-SS	

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		BOWLEY BOWLEYS_QUARTERS-01 20100821 NORMAL SD BACKGROUND SB 12 12	DOWNSTREAM MIDDLE_RIVER_DOWNSTREAM-01 20100820 NORMAL SD OFFSITE SB 12 12	MARSHY_POINT MARSHY_POINT-01 20100821 NORMAL SD BACKGROUND SB 12 12	SD-78 SD-78-01 20081117 NORMAL SD BACKGROUND SB 10 14
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	1800 U
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	1800 U
ACENAPHTHENE	6.7	3400000	N	5.1 U	**11 J**	4.6 U	1800 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**29 J**	**17 J**	5.5 U	1800 U
ANTHRACENE	57.2	17000000	N	47 J	26 J	15 J	1800 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	106	73.1	7.8	**1978**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	103	71.3	2.0	87.7
BENZO(A)ANTHRACENE	108	1500	C	70	54	20 J	1800 U
BENZO(A)PYRENE	150	150	C	74	47	4.8 U	1800 U
BENZO(B)FLUORANTHENE	NA	1500	C	110	89	7.6 U	580 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	110	92	4.8 U	1800 U
BENZO(K)FLUORANTHENE	240	15000	C	11 U	6.8 U	9.7 U	**500 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	63	56	21 J	**710 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	5.9 U	3.7 U	5.4 U	1800 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	200	92	61	**1200 J**
FLUORENE	77.4	2300000	N	51 J	21 J	13 J	1800 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**110**	**99**	5 U	**240 J**
NAPHTHALENE	176	36000	C	110	48	42 J	1800 U
PHENANTHRENE	204	1700000	N[8]	140	71	57	**630 J**
PYRENE	195	1700000	N	130	96	37 J	**1200 J**
TOTAL PAHS	1610	NA		1244	819	266	**5060**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.5 U	2.6 U	2.3 U	22 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.8 U	4 U	3.4 U	22 U
AROCLOR-1260	59.8 [9]	2200	C	3.8 U	**65**	3.4 U	22 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	**65**	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.32	1.7 L	0.3	0.13 U
ARSENIC	9.8	3.9	C	9.2	11 L	10.5	2.1
BARIUM	130 [15]	15000	N	NA	NA	NA	58.9 J

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-78
SAMPLE ID				BOWLEYS_QUARTERS-01	MIDDLE_RIVER_DOWNSTREAM-01	MARSHY_POINT-01	SD-78-01
SAMPLE DATE				20100821	20100820	20100821	20081117
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				BACKGROUND	OFFSITE	BACKGROUND	BACKGROUND
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	10
BOTTOM DEPTH				12	12	12	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.7	1.9	2	1 J
CADMIUM	0.99	70	N	0.91	**7.7 L**	0.67	0.44
CHROMIUM	43.4	120000	N[12]	33.2	**246**	37.6	**66.8 J**
COBALT	50	23	N	NA	NA	NA	7.4
COPPER	31.6	3100	N	54	**122 L**	**39.9**	15.7 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		75.1	**201**	**45.2**	**95.5 J**
MERCURY	0.18	23	N[14]	0.29	**1.1**	**0.26**	0.035 B
MOLYBDENUM	NA	390	N	NA	NA	NA	0.51
NICKEL	22.7	1500	N	42.3	**50.3 L**	**40.4**	**42.5**
SELENIUM	2	390	N	2.5	**2.3 L**	**2.4**	0.63
SILVER	1	390	N	0.24	**2.7**	0.17	**2.5**
THALLIUM	21.3 [16]	NA		0.33	0.29	0.39	0.23 U
VANADIUM	57 [15]	390	N	NA	NA	NA	14.5 J
ZINC	121	23000	N	209	**417 L**	**167**	86
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	75
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	41900	NA	8700
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-13	SD-14	SD-16	SD-19
SAMPLE ID				SD-13-01	SD-14-01	SD-16-01	SD-19-01
SAMPLE DATE				20051020	20051020	20051020	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		15 UL	54 U	16 U	15 U
1,4-DICHLOROBENZENE	599	24000	C	15 UL	54 U	16 U	15 U
2-BUTANONE	25710 [4]	28000000	N	76 UR	270 UR	18 J	37 J
ACETONE	60030 [4]	61000000	N	76 B	270 B	100 B	220
CARBON DISULFIDE	0.851	820000	N	15 UL	**19 J**	**7 J**	**6 J**
CHLOROBENZENE	8.42	290000	N	15 UL	54 U	16 U	15 U
CHLOROMETHANE	17800 [4]	120000	N	30 UL	110 U	32 U	30 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	15 UL	54 U	16 U	15 U
ISOPROPYLBENZENE	86	2100000	N	3 J	54 U	16 U	10 J
METHYL TERT-BUTYL ETHER	NA	430000	C	30 UL	110 U	4 J	30 U
NAPHTHALENE	176	36000	C	15 UL	54 U	16 U	15 U
SEC-BUTYLBENZENE	880 [4]	NA		20 L	54 U	16 U	33
TERT-BUTYLBENZENE	1210 [4]	NA		15 UL	54 U	16 U	2 J
TOLUENE	2880 [4]	5000000	N	15 UL	54 U	16 U	15 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	**260 J**	710 U	1000 U	1000 U
1,3-DICHLOROBENZENE	4430	NA		1000 U	710 U	1000 U	1000 U
1,4-DICHLOROBENZENE	599	24000	C	180 J	710 U	1000 U	1000 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1000 U	710 U	1000 U	1000 U
2-METHYLNAPHTHALENE	20.2	310000	N	**340 J**	710 U	**220 J**	1000 U
ACENAPHTHENE	6.7	3400000	N	**750 J**	710 U	**480 J**	**190 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	1000 U	710 U	1000 U	1000 U
ANTHRACENE	57.2	17000000	N	**1600 J**	710 U	**820 J**	**640 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**10464**	710 U	**4399**	**3536**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**10464**	710 U	**3899**	**3536**
BENZO(A)ANTHRACENE	108	1500	C	**7600 J**	710 U	**2600 J**	**2300**
BENZO(A)PYRENE	150	150	C	**7300 J**	710 U	**3000 J**	**2300 J**
BENZO(B)FLUORANTHENE	NA	1500	C	**10000 J**	710 U	**4600 J**	**3100 J**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**4800 J**	710 U	**1800 J**	**1800 J**
BENZO(K)FLUORANTHENE	240	15000	C	**4500 J**	710 U	**1600 J**	**1300 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**3400 J**	710 U	**1100 J**	**360 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	830 J	710 U	1000 UJ	1000 U
CARBAZOLE	NA	NA		1000 J	710 U	310 J	310 J
CHRYSENE	166	150000	C	**9300 J**	710 U	**2900 J**	**2800**
DIBENZO(A,H)ANTHRACENE	33	150	C	**790 J**	710 U	1000 UJ	**480 J**
DIBENZOFURAN	415	78000	N	400 J	710 U	1000 U	1000 U
FLUORANTHENE	423	2300000	N	**11000 J**	710 U	**3500 J**	**4400**
FLUORENE	77.4	2300000	N	**570 J**	710 U	**330 J**	**290 J**
INDENO(1,2,3-CD)PYRENE	17	1500	C	**5600 J**	710 U	**1600 J**	**2000 J**
NAPHTHALENE	176	36000	C	**550 J**	710 U	**360 J**	**300 J**
PHENANTHRENE	204	1700000	N[8]	**7900 J**	710 U	**3200 J**	**2800**
PYRENE	195	1700000	N	**24000 J**	710 U	**11000 J**	**6000**
TOTAL PAHS	1610	NA		**96600**	0 U	**38010**	**30700**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	53 U	37 U	54 U	54 U
AROCLOR-1254	59.8 [9]	1100	N[10]	53 U	37 U	54 U	54 U
AROCLOR-1260	59.8 [9]	2200	C	**2500**	37 U	**1400**	**330 J**
TOTAL AROCLOR	59.8	2200	C[11]	**2500**	0 U	**1400**	**330**
METALS (MG/KG)							
ANTIMONY	2	31	N	2	0.72 U	1.5	2
ARSENIC	9.8	3.9	C	6.9	3.9	6.6	3
BARIUM	130 [15]	15000	N	68.9	27.9	71.9	85.1

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-13	SD-14	SD-16	SD-19
SAMPLE ID				SD-13-01	SD-14-01	SD-16-01	SD-19-01
SAMPLE DATE				20051020	20051020	20051020	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.8	1.9	2.2	1.8
CADMIUM	0.99	70	N	**13.6**	0.07	**26.8**	**34.4**
CHROMIUM	43.4	120000	N[12]	**227**	28	**443**	**756**
COBALT	50	23	N	14.5	11.3	17.8	13.2
COPPER	31.6	3100	N	**107**	16	**109**	**57.6**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.5 UL	1 UL	1.6 UL	1.6 UL
LEAD	35.8	400		**242**	8.9	**251**	**130**
MERCURY	0.18	23	N[14]	**0.73 L**	0.06 L	**3.5 L**	**1 L**
MOLYBDENUM	NA	390	N	1.9	0.88	1.8	1
NICKEL	22.7	1500	N	**49.6**	19.1	**69.1**	**35.1**
SELENIUM	2	390	N	0.79 UL	0.63 UL	0.94 UL	0.9 UL
SILVER	1	390	N	**16.2**	0.49 L	**27.3**	**11.5**
THALLIUM	21.3 [16]	NA		1.36 U	1.08 U	2.1	1.53 U
VANADIUM	57 [15]	390	N	**82.2**	27.8	**110**	49.2
ZINC	121	23000	N	**423**	54	**484**	**458**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		32	46	32	32
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	33000
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-27	SD-28	SD-29	SD-31
SAMPLE ID				SD-27-01	SD-28-01	SD-29-01	SD-31-01
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		14 UL	13 U	13 UJ	10 UJ
1,4-DICHLOROBENZENE	599	24000	C	14 UL	13 U	13 UJ	10 UJ
2-BUTANONE	25710 [4]	28000000	N	70 UR	27 J	64 UJ	52 UJ
ACETONE	60030 [4]	61000000	N	50 B	130 B	150 B	65 B
CARBON DISULFIDE	0.851	820000	N	14 UL	**6 J**	13 UJ	**5 J**
CHLOROBENZENE	8.42	290000	N	14 UL	13 U	13 UJ	10 UJ
CHLOROMETHANE	17800 [4]	120000	N	28 UL	26 U	25 UJ	21 UJ
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	14 UL	13 U	13 UJ	10 UJ
ISOPROPYLBENZENE	86	2100000	N	14 UL	13 U	13 UJ	10 UJ
METHYL TERT-BUTYL ETHER	NA	430000	C	28 UL	26 U	25 UJ	21 UJ
NAPHTHALENE	176	36000	C	14 UL	13 U	13 UJ	10 UJ
SEC-BUTYLBENZENE	880 [4]	NA		14 UL	13 U	13 UJ	10 UJ
TERT-BUTYLBENZENE	1210 [4]	NA		14 UL	13 U	13 UJ	10 UJ
TOLUENE	2880 [4]	5000000	N	14 UL	13 U	13 UJ	2 J
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	940 U	850 U	900 U	740 U
1,3-DICHLOROBENZENE	4430	NA		940 U	850 U	900 U	740 U
1,4-DICHLOROBENZENE	599	24000	C	940 U	100 J	900 U	740 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	940 U	850 U	900 U	740 U
2-METHYLNAPHTHALENE	20.2	310000	N	940 U	850 U	900 U	740 U
ACENAPHTHENE	6.7	3400000	N	940 U	**710 J**	900 U	740 U
ACENAPHTHYLENE	5.9	3400000	N[7]	940 U	850 U	900 U	740 U
ANTHRACENE	57.2	17000000	N	940 U	**1400**	900 U	740 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1351**	**6280**	**1308**	740 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**881**	**6280**	**858**	740 U
BENZO(A)ANTHRACENE	108	1500	C	**580 J**	**5100**	**610 J**	740 U
BENZO(A)PYRENE	150	150	C	**670 J**	**4200**	**650 J**	740 U
BENZO(B)FLUORANTHENE	NA	1500	C	890 J	**5400**	920 J	740 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**590 J**	**2300**	**410 J**	740 U
BENZO(K)FLUORANTHENE	240	15000	C	**360 J**	**2500**	**490 J**	740 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	**520 J**	850 U	**340 J**	740 U
BUTYL BENZYL PHTHALATE	10900	2600000	C	940 U	850 U	900 U	740 U
CARBAZOLE	NA	NA		940 U	760 J	900 U	740 U
CHRYSENE	166	150000	C	**750 J**	**5200**	**660 J**	740 U
DIBENZO(A,H)ANTHRACENE	33	150	C	940 U	**700 J**	900 UJ	740 U
DIBENZOFURAN	415	78000	N	940 U	270 J	900 U	740 U
FLUORANTHENE	423	2300000	N	**1100**	**9300**	**1200**	740 U
FLUORENE	77.4	2300000	N	940 U	**550 J**	900 U	740 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**600 J**	**3000**	**490 J**	740 U
NAPHTHALENE	176	36000	C	940 U	**240 J**	**180 J**	740 U
PHENANTHRENE	204	1700000	N[8]	**580 J**	**4900**	**550 J**	740 U
PYRENE	195	1700000	N	**1600**	**10000**	**1400**	740 U
TOTAL PAHS	1610	NA		**7720**	**55500**	**7560**	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	48 U	44 U	47 U	38 U
AROCLOR-1254	59.8 [9]	1100	N[10]	48 U	44 U	47 U	38 U
AROCLOR-1260	59.8 [9]	2200	C	**670 J**	**610 J**	**210**	38 U
TOTAL AROCLOR	59.8	2200	C[11]	**670**	**610**	**210**	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	1.1 L	0.57 UL	1.2 L	1.64 UL
ARSENIC	9.8	3.9	C	7.8	5	3.9	12.6
BARIUM	130 [15]	15000	N	61.6	38.1	63.5	76.6

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-27	SD-28	SD-29	SD-31
SAMPLE ID				SD-27-01	SD-28-01	SD-29-01	SD-31-01
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.2	1.4	2.1	3.6
CADMIUM	0.99	70	N	**27.9**	**8.4**	**40.5**	0.28
CHROMIUM	43.4	120000	N[12]	**503 K**	**140 K**	**817 K**	**75 K**
COBALT	50	23	N	22.1	11.7	17.3	**29**
COPPER	31.6	3100	N	**128 J**	**86.2 J**	**67.5 J**	**38.7 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.4 UL	1.2 UL	1.4 UL	1.1 UL
LEAD	35.8	400		**215**	**86.9**	**136**	**52.3**
MERCURY	0.18	23	N[14]	**1.5 K**	**0.43 K**	0.1 B	0.09 B
MOLYBDENUM	NA	390	N	2.4	0.65	1.7	2.2
NICKEL	22.7	1500	N	**59.8**	**24.2**	**43.1**	**46.1**
SELENIUM	2	390	N	1.4 B	0.73 B	1.3 B	1.44 U
SILVER	1	390	N	**15.6**	0.74 L	**12.6**	0.42 UL
THALLIUM	21.3 [16]	NA		1.5 U	0.85 U	1.3 U	2.45 U
VANADIUM	57 [15]	390	N	**98.8**	32.5	57	**72.9**
ZINC	121	23000	N	**531**	**258**	**456**	**179**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	3.5 U	NA	3 U
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		35	39	36	45
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-40	SD-42	SD-43	SD-44
SAMPLE ID					SD-40-01	SD-42-01	SD-43-01	SD-44-01
SAMPLE DATE					20051021	20051021	20081117	20081117
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					12	12	10	10
BOTTOM DEPTH					12	12	14	14
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		13 U	9 UJ	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	13 U	9 UJ	NA	NA
2-BUTANONE	25710	[4]	28000000	N	66 UR	47 UR	NA	NA
ACETONE	60030	[4]	61000000	N	200 J	36 J	NA	NA
CARBON DISULFIDE	0.851		820000	N	13 U	**5 J**	NA	NA
CHLOROBENZENE	8.42		290000	N	13 U	9 U	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	26 U	19 U	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	13 U	9 U	NA	NA
ISOPROPYLBENZENE	86		2100000	N	13 U	9 UJ	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	26 U	3 J	NA	NA
NAPHTHALENE	176		36000	C	13 U	9 UJ	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		13 U	9 UJ	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		13 U	9 U	NA	NA
TOLUENE	2880	[4]	5000000	N	13 U	9 U	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	860 U	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		860 U	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	100 B	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	860 U	NA	410 U	390 U
2-METHYLNAPHTHALENE	20.2		310000	N	860 U	NA	410 U	390 U
ACENAPHTHENE	6.7		3400000	N	180 B	NA	410 U	390 U
ACENAPHTHYLENE	5.9		3400000	N[7]	860 U	NA	410 U	390 U
ANTHRACENE	57.2		17000000	N	**170 J**	NA	410 U	390 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1076**	NA	**450**	390 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	**642**	NA	19.5	390 U
BENZO(A)ANTHRACENE	108		1500	C	**410 J**	NA	410 U	390 U
BENZO(A)PYRENE	150		150	C	**480 J**	NA	410 U	390 U
BENZO(B)FLUORANTHENE	NA		1500	C	750 J	NA	120 J	390 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	**440 J**	NA	410 U	390 U
BENZO(K)FLUORANTHENE	240		15000	C	860 U	NA	100 J	390 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	**760 J**	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	860 U	NA	NA	NA
CARBAZOLE	NA		NA		860 U	NA	NA	NA
CHRYSENE	166		150000	C	**670 J**	NA	150 J	390 U
DIBENZO(A,H)ANTHRACENE	33		150	C	860 U	NA	410 U	390 U
DIBENZOFURAN	415		78000	N	860 U	NA	NA	NA
FLUORANTHENE	423		2300000	N	**670 J**	NA	160 J	390 U
FLUORENE	77.4		2300000	N	860 U	NA	410 U	390 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**450 J**	NA	**63 J**	390 U
NAPHTHALENE	176		36000	C	860 U	NA	410 U	390 U
PHENANTHRENE	204		1700000	N[8]	**300 J**	NA	91 J	390 U
PYRENE	195		1700000	N	**1200**	NA	**240 J**	390 U
TOTAL PAHS	1610		NA		**5540**	NA	924	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	44 U	NA	25 U	20 U
AROCLOR-1254	59.8	[9]	1100	N[10]	44 U	NA	25 U	20 U
AROCLOR-1260	59.8	[9]	2200	C	**400**	NA	25 U	20 U
TOTAL AROCLOR	59.8		2200	C[11]	**400**	NA	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.66 U	0.58 U	0.15 U	0.12 U
ARSENIC	9.8		3.9	C	5.4	1.46 U	6.6	2.6
BARIUM	130	[15]	15000	N	52.4	54.2	75.8 J	16

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-40	SD-42	SD-43	SD-44
SAMPLE ID				SD-40-01	SD-42-01	SD-43-01	SD-44-01
SAMPLE DATE				20051021	20051021	20081117	20081117
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	10	10
BOTTOM DEPTH				12	12	14	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.2	1.2	1.8 J	0.95
CADMIUM	0.99	70	N	**31.2**	**157**	**6.2**	0.089
CHROMIUM	43.4	120000	N[12]	**475**	**1100**	**250 J**	14.5
COBALT	50	23	N	20.9	12	16.1	12.7
COPPER	31.6	3100	N	**93.7**	**95.6**	**33.9 J**	8.1
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.3 U	1.6	NA	NA
LEAD	35.8	400		**182**	**256**	**73.6 J**	5.8
MERCURY	0.18	23	N[14]	**0.67**	**0.52**	**0.21**	0.015
MOLYBDENUM	NA	390	N	1.4	1.7	0.49	0.25 B
NICKEL	22.7	1500	N	**45.8**	**39.3**	18.7	9.8
SELENIUM	2	390	N	0.61	0.51 U	1.4	0.51
SILVER	1	390	N	**5.4**	**7.5**	0.15 B	0.086
THALLIUM	21.3 [16]	NA		1 B	0.87 U	0.25 U	0.21 U
VANADIUM	57 [15]	390	N	50.7	42.3	36.2 J	23.5
ZINC	121	23000	N	**430**	**598**	**127**	29.1
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		5	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		38	53	65	85
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		46000	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-45	SD-46	SD-46	SD-46
SAMPLE ID					SD-45-01	SD-46-01	SD-46-01-AVG	SD-46-01-D
SAMPLE DATE					20081117	20081115	20081115	20081115
SAMPLE CODE					NORMAL	ORIG	AVG	DUP
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					10	8	8	8
BOTTOM DEPTH					14	16	16	16
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	650 U	710 U	705 U	700 U
2-METHYLNAPHTHALENE	20.2		310000	N	650 U	710 U	705 U	700 U
ACENAPHTHENE	6.7		3400000	N	650 U	710 U	705 U	700 U
ACENAPHTHYLENE	5.9		3400000	N[7]	650 U	710 U	705 U	700 U
ANTHRACENE	57.2		17000000	N	650 U	**89 J**	**94.5 J**	**100 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**725**	**828**	**1050**	**1239**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	42.0	82.5	**697**	**889**
BENZO(A)ANTHRACENE	108		1500	C	650 U	710 U	**680 J**	**680 J**
BENZO(A)PYRENE	150		150	C	650 U	710 U	**532.5**	**710**
BENZO(B)FLUORANTHENE	NA		1500	C	240 J	470 J	550 J	630 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	160 J	**310 J**	**375 J**	**440 J**
BENZO(K)FLUORANTHENE	240		15000	C	**270 J**	**480 J**	**580 J**	**680 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**340 J**	**650 J**	**735 J**	**820**
DIBENZO(A,H)ANTHRACENE	33		150	C	650 U	710 U	705 U	700 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**440 J**	**960**	**1080**	**1200**
FLUORENE	77.4		2300000	N	650 U	710 U	705 U	700 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**150 J**	**300 J**	**350 J**	**400 J**
NAPHTHALENE	176		36000	C	650 U	710 U	705 U	700 U
PHENANTHRENE	204		1700000	N[8]	**220 J**	**360 J**	**385 J**	**410 J**
PYRENE	195		1700000	N	**680**	**1300**	**1500**	**1700**
TOTAL PAHS	1610		NA		**2500**	**4919**	**6862**	**7770**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	32 U	36 U	35.5 U	35 U
AROCLOR-1254	59.8	[9]	1100	N[10]	32 U	36 U	35.5 U	35 U
AROCLOR-1260	59.8	[9]	2200	C	**85**	**180**	**215**	**250**
TOTAL AROCLOR	59.8		2200	C[11]	**85**	**180**	**215**	**250**
METALS (MG/KG)								
ANTIMONY	2		31	N	3.5	6.2 L	6.3 L	6.4 L
ARSENIC	9.8		3.9	C	7.8	10.1	10.05	10
BARIUM	130	[15]	15000	N	61.8	80.2	80.75	81.3

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-45 SD-45-01 20081117 NORMAL SD NORMAL SB 10 14	SD-46 SD-46-01 20081115 ORIG SD NORMAL SB 8 16	SD-46 SD-46-01-AVG 20081115 AVG SD NORMAL SB 8 16	SD-46 SD-46-01-D 20081115 DUP SD NORMAL SB 8 16
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.7	1.6	1.65	1.7
CADMIUM	0.99	70	N	**120**	**306**	**303**	**300**
CHROMIUM	43.4	120000	N[12]	**1290**	**2460**	**2410**	**2360**
COBALT	50	23	N	15.6	15.4	15.4	15.4
COPPER	31.6	3100	N	**82.1**	**167**	**168**	**169**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**151**	**407**	**410.5**	**414**
MERCURY	0.18	23	N[14]	**0.44**	**0.73**	**0.745**	**0.76**
MOLYBDENUM	NA	390	N	1.5	1.3	1.4	1.5
NICKEL	22.7	1500	N	**30.7**	**70.4**	**69.8**	**69.2**
SELENIUM	2	390	N	1.3	0.92	1.16	1.4
SILVER	1	390	N	**8.2**	**8.9**	**10.1**	**11.3**
THALLIUM	21.3 [16]	NA		0.32 U	0.44	0.425	0.41
VANADIUM	57 [15]	390	N	46.3	**71.5**	**74.2**	**76.9**
ZINC	121	23000	N	**447**	**1150**	**1125**	**1100**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		51	47	47.5	48
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-47	SD-48	SD-49	SD-50
SAMPLE ID					SD-47-01	SD-48-01	SD-49-01	SD-50-01
SAMPLE DATE					20081115	20081115	20081115	20081114
SAMPLE CODE					NORMAL	NORMAL	NORMAL	ORIG
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					10	10	10	8
BOTTOM DEPTH					14	14	14	16
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	710 U	430 U	560 U	1200 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	710 U	430 U	560 U	1200 UJ
ACENAPHTHENE	6.7		3400000	N	710 U	430 U	560 U	1200 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	710 U	430 U	560 U	1200 UJ
ANTHRACENE	57.2		17000000	N	710 U	430 U	560 U	1200 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	710 U	430 U	560 U	**1311**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	710 U	430 U	560 U	50.5
BENZO(A)ANTHRACENE	108		1500	C	710 U	430 U	560 U	1200 UJ
BENZO(A)PYRENE	150		150	C	710 U	430 U	560 U	1200 UJ
BENZO(B)FLUORANTHENE	NA		1500	C	710 U	430 U	560 U	320 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	710 U	430 U	560 U	1200 UJ
BENZO(K)FLUORANTHENE	240		15000	C	710 U	430 U	560 U	**310 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	710 U	430 U	560 U	**410 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	710 U	430 U	560 U	1200 UJ
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	710 U	430 U	560 U	**470 J**
FLUORENE	77.4		2300000	N	710 U	430 U	560 U	1200 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	710 U	430 U	560 U	**150 J**
NAPHTHALENE	176		36000	C	710 U	430 U	560 U	1200 UJ
PHENANTHRENE	204		1700000	N[8]	710 U	430 U	560 U	1200 UJ
PYRENE	195		1700000	N	710 U	430 U	560 U	**680 J**
TOTAL PAHS	1610		NA		0 U	0 U	0 U	**2340**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	36 U	22 U	35 U	3000 UJ
AROCLOR-1254	59.8	[9]	1100	N[10]	36 U	22 U	35 U	3000 UJ
AROCLOR-1260	59.8	[9]	2200	C	36 U	22 U	35 U	**2400 J**
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	0 U	**2400**
METALS (MG/KG)								
ANTIMONY	2		31	N	0.21 UL	0.13 UL	0.21 U	0.36 UJ
ARSENIC	9.8		3.9	C	3.6	1.4	5.3	10.6 J
BARIUM	130	[15]	15000	N	26.9	8.1	30.4 J	72.9 J

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-47	SD-48	SD-49	SD-50
SAMPLE ID			SD-47-01	SD-48-01	SD-49-01	SD-50-01
SAMPLE DATE			20081115	20081115	20081115	20081114
SAMPLE CODE			NORMAL	NORMAL	NORMAL	ORIG
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			10	10	10	8
BOTTOM DEPTH			14	14	14	16
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	1.5	1.1	1.6 J	2.1 J
CADMIUM	0.99	70 N	0.33	0.045	0.037 B	**9.5 J**
CHROMIUM	43.4	120000 N[12]	24.2	8.9	23.5 J	**220 J**
COBALT	50	23 N	9.2	2.2	13.6	21.1 J
COPPER	31.6	3100 N	14.7	5.1	13.7 J	**115 J**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	12.5	2.9	8 J	**128 J**
MERCURY	0.18	23 N[14]	0.041 B	0.011 B	0.031 B	**0.51 J**
MOLYBDENUM	NA	390 N	1.5	0.94	1.2	0.87 B
NICKEL	22.7	1500 N	14.3	5.5	15.9	**41.2 J**
SELENIUM	2	390 N	1.1	0.42 U	1.1	1.7 J
SILVER	1	390 N	0.19	0.08 U	0.14 B	**3.6 J**
THALLIUM	21.3 [16]	NA	0.37 U	0.22 U	0.35 U	0.62 UJ
VANADIUM	57 [15]	390 N	33.8	13	25.2 J	**57.1 J**
ZINC	121	23000 N	36.2	10.8	59	**357 J**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	47	77	47	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50	SD-50	SD-51	SD-53
SAMPLE ID					SD-50-01-AVG	SD-50-01-D	SD-51-01	SD-53-01
SAMPLE DATE					20081114	20081114	20081115	20081114
SAMPLE CODE					AVG	DUP	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					8	8	10	10
BOTTOM DEPTH					16	16	14	14
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	1200 UJ	1200 UJ	1100 U	910 U
2-METHYLNAPHTHALENE	20.2		310000	N	1200 UJ	1200 UJ	1100 U	910 U
ACENAPHTHENE	6.7		3400000	N	1200 UJ	1200 UJ	1100 U	910 U
ACENAPHTHYLENE	5.9		3400000	N[7]	1200 UJ	1200 UJ	1100 U	910 U
ANTHRACENE	57.2		17000000	N	1200 UJ	1200 UJ	1100 U	910 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1328**	**1345**	1100 U	910 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	67.9	85.3	1100 U	910 U
BENZO(A)ANTHRACENE	108		1500	C	1200 UJ	1200 UJ	1100 U	910 U
BENZO(A)PYRENE	150		150	C	1200 UJ	1200 UJ	1100 U	910 U
BENZO(B)FLUORANTHENE	NA		1500	C	425 J	530 J	1100 U	910 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	1200 UJ	1200 UJ	1100 U	910 U
BENZO(K)FLUORANTHENE	240		15000	C	**395 J**	**480 J**	1100 U	910 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**460 J**	**510 J**	1100 U	910 U
DIBENZO(A,H)ANTHRACENE	33		150	C	1200 UJ	1200 UJ	1100 U	910 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**590 J**	**710 J**	1100 U	910 U
FLUORENE	77.4		2300000	N	1200 UJ	1200 UJ	1100 U	910 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**210 J**	**270 J**	1100 U	910 U
NAPHTHALENE	176		36000	C	1200 UJ	1200 UJ	1100 U	910 U
PHENANTHRENE	204		1700000	N[8]	**270 J**	**270 J**	1100 U	910 U
PYRENE	195		1700000	N	**840 J**	**1000 J**	1100 U	910 U
TOTAL PAHS	1610		NA		**3190**	**3770**	0 U	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	1645 UJ	290 UJ	53 U	45 U
AROCLOR-1254	59.8	[9]	1100	N[10]	1645 UJ	290 UJ	53 U	45 U
AROCLOR-1260	59.8	[9]	2200	C	**1900 J**	**1400 J**	53 U	45 U
TOTAL AROCLOR	59.8		2200	C[11]	**1900**	**1400**	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.385 BJ	0.41 B	0.33 UL	0.28 UL
ARSENIC	9.8		3.9	C	11.3 J	12 J	8.9	7.1
BARIUM	130	[15]	15000	N	64.35 J	55.8 J	47.3	39.5

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50 SD-50-01-AVG 20081114 AVG SD NORMAL SB 8 16	SD-50 SD-50-01-D 20081114 DUP SD NORMAL SB 8 16	SD-51 SD-51-01 20081115 NORMAL SD NORMAL SB 10 14	SD-53 SD-53-01 20081114 NORMAL SD NORMAL SB 10 14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.15 J	2.2 J	1.9	2.1
CADMIUM	0.99	70	N	**9.45 J**	**9.4 J**	**15.7**	0.12
CHROMIUM	43.4	120000	N[12]	**217.5 J**	**215 J**	**314**	37.6
COBALT	50	23	N	21.65 J	22.2 J	18.4	15.8
COPPER	31.6	3100	N	**119.5 J**	**124 J**	**86.1**	19.8
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**129 J**	**130 J**	**137**	14.6
MERCURY	0.18	23	N[14]	**0.515 J**	**0.52 J**	**0.68**	0.056
MOLYBDENUM	NA	390	N	0.985 B	1.1 B	1.5	0.92
NICKEL	22.7	1500	N	**42.5 J**	**43.8 J**	**38.4**	**25.4**
SELENIUM	2	390	N	1.5 J	1.3 J	**2.5**	1.3
SILVER	1	390	N	**3.5 J**	**3.4 J**	**5.4**	0.18 U
THALLIUM	21.3 [16]	NA		0.62 UJ	0.62 UJ	0.56 U	0.48 U
VANADIUM	57 [15]	390	N	**58.2 J**	**59.3 J**	54.1	42.7
ZINC	121	23000	N	**369 J**	**381 J**	**338**	81
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	32	37
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-54	SD-55	SD-56	SD-57
SAMPLE ID					SD-54-01	SD-55-01	SD-56-01	SD-57-01
SAMPLE DATE					20081114	20081113	20081113	20081114
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					10	10	10	10
BOTTOM DEPTH					14	14	14	14
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	1400 UJ	1100 U	910 U	840 U
2-METHYLNAPHTHALENE	20.2		310000	N	1400 UJ	1100 U	910 U	840 U
ACENAPHTHENE	6.7		3400000	N	1400 UJ	1100 U	910 U	840 U
ACENAPHTHYLENE	5.9		3400000	N[7]	1400 UJ	1100 U	910 U	840 U
ANTHRACENE	57.2		17000000	N	1400 UJ	1100 U	**97 J**	840 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1564**	**1228**	**1049**	840 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	93.8	72.5	93.1	840 U
BENZO(A)ANTHRACENE	108		1500	C	1400 UJ	1100 U	910 U	840 U
BENZO(A)PYRENE	150		150	C	1400 UJ	1100 U	910 U	840 U
BENZO(B)FLUORANTHENE	NA		1500	C	580 J	430 J	580 J	840 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	1400 UJ	1100 U	**340 J**	840 U
BENZO(K)FLUORANTHENE	240		15000	C	**520 J**	**410 J**	**560 J**	840 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**560 J**	**440 J**	**530 J**	840 U
DIBENZO(A,H)ANTHRACENE	33		150	C	1400 UJ	1100 U	910 U	840 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**680 J**	**580 J**	**830 J**	840 U
FLUORENE	77.4		2300000	N	1400 UJ	1100 U	910 U	840 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**300 J**	**250 J**	**290 J**	840 U
NAPHTHALENE	176		36000	C	1400 UJ	1100 U	910 U	840 U
PHENANTHRENE	204		1700000	N[8]	**330 J**	**270 J**	**300 J**	840 U
PYRENE	195		1700000	N	**1300 J**	**1100 J**	**1100**	840 U
TOTAL PAHS	1610		NA		**4270**	**3480**	**4627**	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	69 UJ	55 U	46 U	42 U
AROCLOR-1254	59.8	[9]	1100	N[10]	69 UJ	55 U	46 U	42 U
AROCLOR-1260	59.8	[9]	2200	C	**110 J**	**440**	**310**	42 U
TOTAL AROCLOR	59.8		2200	C[11]	**110**	**440**	**310**	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.41 UJ	0.33 UL	0.38 L	0.26 UJ
ARSENIC	9.8		3.9	C	11.3 J	9.5	8	8
BARIUM	130	[15]	15000	N	63 J	52.2	41.2	30.8

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-54	SD-55	SD-56	SD-57
SAMPLE ID				SD-54-01	SD-55-01	SD-56-01	SD-57-01
SAMPLE DATE				20081114	20081113	20081113	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.4 J	2.1	1.8	2.1
CADMIUM	0.99	70	N	**7.7 J**	**7.8**	**9.7**	0.015 U
CHROMIUM	43.4	120000	N[12]	**181 J**	**180**	**193**	33.1
COBALT	50	23	N	**24 J**	19.2	17	13.7
COPPER	31.6	3100	N	**134 J**	**92.6**	**79.3**	18.4
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**137 J**	**111**	**107**	11.7
MERCURY	0.18	23	N[14]	**0.49 J**	**0.42**	**0.51**	0.016
MOLYBDENUM	NA	390	N	1.5 J	1.3	1.1	0.39 B
NICKEL	22.7	1500	N	**46 J**	**38**	**34.3**	**23.3**
SELENIUM	2	390	N	**2.5 J**	2	1.7	1
SILVER	1	390	N	**2.7 J**	**3.5**	**4.3**	0.16 U
THALLIUM	21.3 [16]	NA		0.71 UJ	0.57 U	0.47 U	0.44 U
VANADIUM	57 [15]	390	N	**65.4 J**	55.7	54.7	38.5
ZINC	121	23000	N	**420 J**	**322**	**308**	68
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		24	30	37	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-58	SD-59	SD-60	SD-61
SAMPLE ID				SD-58-01	SD-59-01	SD-60-01	SD-61-01
SAMPLE DATE				20081114	20081115	20081112	20081113
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	**150 J**	820 U	790 U	1000 U
2-METHYLNAPHTHALENE	20.2	310000	N	980 U	820 U	790 U	1000 U
ACENAPHTHENE	6.7	3400000	N	**2400 J**	820 U	790 U	1000 U
ACENAPHTHYLENE	5.9	3400000	N[7]	980 U	820 U	790 U	1000 U
ANTHRACENE	57.2	17000000	N	**4400 J**	820 U	790 U	**160 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**12075**	**928**	**905**	**1194**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**12075**	66.8	35.6	144
BENZO(A)ANTHRACENE	108	1500	C	**12000**	820 U	790 U	1000 U
BENZO(A)PYRENE	150	150	C	**9000**	820 U	790 U	1000 U
BENZO(B)FLUORANTHENE	NA	1500	C	**9400**	420 J	330 J	800 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**4600**	820 U	790 U	**630 J**
BENZO(K)FLUORANTHENE	240	15000	C	**7300**	**330 J**	230 J	**800 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**12000**	**450 J**	**320 J**	**880 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	**380 J**	820 U	790 U	1000 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**20000 J**	**540 J**	390 J	**1200**
FLUORENE	77.4	2300000	N	**2000 J**	820 U	790 U	1000 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**4700**	**210 J**	790 U	**550 J**
NAPHTHALENE	176	36000	C	**290 J**	820 U	790 U	1000 U
PHENANTHRENE	204	1700000	N[8]	**15000 J**	**250 J**	**240 J**	**540 J**
PYRENE	195	1700000	N	**15000**	**900**	**660 J**	**2000**
TOTAL PAHS	1610	NA		**118470**	**3100**	**2170**	**7560**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	980 U	51 U	50 U	52 U
AROCLOR-1254	59.8 [9]	1100	N[10]	980 U	51 U	50 U	52 U
AROCLOR-1260	59.8 [9]	2200	C	**14000**	**1300**	50 U	**1000**
TOTAL AROCLOR	59.8	2200	C[11]	**14000**	**1300**	0 U	**1000**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.29 UJ	0.3 U	1.5 J	0.63 L
ARSENIC	9.8	3.9	C	10	10.6	12.1	8.8
BARIUM	130 [15]	15000	N	236	57.6 J	59.8 J	53.7

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-58	SD-59	SD-60	SD-61
SAMPLE ID				SD-58-01	SD-59-01	SD-60-01	SD-61-01
SAMPLE DATE				20081114	20081115	20081112	20081113
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.8	2.3 J	2.1 J	2.2
CADMIUM	0.99	70	N	**17.2**	**11.8**	**17.7**	**16.5**
CHROMIUM	43.4	120000	N[12]	**1290**	**261 J**	**327 J**	**335**
COBALT	50	23	N	16.8	21.5	21.3 J	19.8
COPPER	31.6	3100	N	**132**	**101 J**	**126 J**	**96.2**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**159**	**200 J**	**207**	**148**
MERCURY	0.18	23	N[14]	**1.5**	**0.57**	**0.91**	**0.82**
MOLYBDENUM	NA	390	N	0.87 B	1.4	1.7	1
NICKEL	22.7	1500	N	**40**	**46.2**	**52.3 J**	**42.6**
SELENIUM	2	390	N	0.96	**2.2**	**2.3**	1.8
SILVER	1	390	N	**5.6**	**3.9**	**7.7**	**7.6**
THALLIUM	21.3 [16]	NA		0.49 U	0.51 U	0.51 U	0.55 U
VANADIUM	57 [15]	390	N	50.6	**69.8 J**	**86 J**	**61.3**
ZINC	121	23000	N	**1300**	**399**	**463 J**	**406**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	32	34	32
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		19000	23000	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-62	SD-63	SD-64	SD-65
SAMPLE ID					SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE					20081112	20081112	20081112	20081111
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					10	10	10	10
BOTTOM DEPTH					14	14	14	14
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	790 U	800 U	630 U	1000 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	790 U	800 U	630 U	1000 UJ
ACENAPHTHENE	6.7		3400000	N	790 U	800 U	630 U	1000 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	790 U	800 U	630 U	1000 UJ
ANTHRACENE	57.2		17000000	N	790 U	**210 J**	**110 J**	1000 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**899**	**2010**	**1048**	1000 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	30.2	**1610**	**702**	1000 U
BENZO(A)ANTHRACENE	108		1500	C	790 U	**1100**	630 U	1000 UJ
BENZO(A)PYRENE	150		150	C	790 U	**1300**	**600 J**	1000 UJ
BENZO(B)FLUORANTHENE	NA		1500	C	270 J	1100	630	1000 UJ
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	790 U	**820**	**380 J**	1000 UJ
BENZO(K)FLUORANTHENE	240		15000	C	**290 J**	**1300**	**620 J**	1000 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**260 J**	**1400**	**640**	1000 UJ
DIBENZO(A,H)ANTHRACENE	33		150	C	790 U	800 U	630 U	1000 UJ
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	290 J	**1700**	**950**	270 J
FLUORENE	77.4		2300000	N	790 U	**100 J**	630 U	1000 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	790 U	**760 J**	**320 J**	1000 UJ
NAPHTHALENE	176		36000	C	790 U	800 U	630 U	1000 UJ
PHENANTHRENE	204		1700000	N[8]	790 U	**1000**	**440 J**	1000 UJ
PYRENE	195		1700000	N	**580 J**	**3900 J**	**1700 J**	**400 J**
TOTAL PAHS	1610		NA		**1690**	**14690**	**6390**	670
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	49 U	50 U	39 U	51 U
AROCLOR-1254	59.8	[9]	1100	N[10]	49 U	50 U	39 U	51 U
AROCLOR-1260	59.8	[9]	2200	C	49 U	**1100**	**190 J**	51 U
TOTAL AROCLOR	59.8		2200	C[11]	0 U	**1100**	**190**	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.98 J	2.2 J	2.1 J	0.31 UJ
ARSENIC	9.8		3.9	C	9.8	10.3	7.7	10.4
BARIUM	130	[15]	15000	N	47.5 J	61.3 J	41.8 J	56.4

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-62	SD-63	SD-64	SD-65
SAMPLE ID				SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE				20081112	20081112	20081112	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.9 J	1.8 J	1.9 J	2
CADMIUM	0.99	70	N	**9.9**	**31 J**	**14.4 J**	**19.2**
CHROMIUM	43.4	120000	N[12]	**196 J**	**444 J**	**298 J**	**332**
COBALT	50	23	N	17.2 J	16.4 J	14.2 J	17.1
COPPER	31.6	3100	N	**90.6 J**	**108 J**	**49.2 J**	**178 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**159**	**183 J**	**84.1 J**	**201**
MERCURY	0.18	23	N[14]	**0.51**	**2**	**0.25**	**1**
MOLYBDENUM	NA	390	N	1.3	1.6 J	1.4 J	1.9
NICKEL	22.7	1500	N	**41.1 J**	**50.7 J**	**35.7 J**	**51.7 J**
SELENIUM	2	390	N	**2.1**	**2.4 J**	1.3 J	**2.4 J**
SILVER	1	390	N	**3.7**	**20.8 J**	**15.3 J**	**12.9**
THALLIUM	21.3 [16]	NA		0.53 U	0.51 U	0.41 U	0.54 U
VANADIUM	57 [15]	390	N	**65.8 J**	**88.8 J**	**57.2 J**	**89**
ZINC	121	23000	N	**323 J**	**464 J**	**248 J**	**386 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		34	33	42	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		21000	NA	16000	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-66	SD-67	SD-68	SD-68
SAMPLE ID					SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG
SAMPLE DATE					20081112	20081111	20081112	20081112
SAMPLE CODE					NORMAL	NORMAL	ORIG	AVG
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					10	10	8	8
BOTTOM DEPTH					14	14	16	16
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	880 U	1100 UJ	920 UJ	910 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	880 U	1100 UJ	920 UJ	910 UJ
ACENAPHTHENE	6.7		3400000	N	880 U	1100 UJ	920 UJ	910 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	880 U	1100 UJ	920 UJ	910 UJ
ANTHRACENE	57.2		17000000	N	880 U	1100 UJ	920 UJ	910 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**988**	1100 U	**1030**	**1019**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	63.5	1100 U	17.9	17.9
BENZO(A)ANTHRACENE	108		1500	C	880 U	1100 UJ	920 UJ	910 UJ
BENZO(A)PYRENE	150		150	C	880 U	1100 UJ	920 UJ	910 UJ
BENZO(B)FLUORANTHENE	NA		1500	C	420 J	1100 UJ	160 J	160 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	880 U	1100 UJ	920 UJ	910 UJ
BENZO(K)FLUORANTHENE	240		15000	C	**310 J**	1100 UJ	170 J	170 J
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	**400 K**	1100 UJ	**170 J**	150 J
DIBENZO(A,H)ANTHRACENE	33		150	C	880 U	1100 UJ	920 UJ	910 UJ
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**450 J**	1100 UJ	210 J	185 J
FLUORENE	77.4		2300000	N	880 U	1100 UJ	920 UJ	910 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	**180 J**	1100 UJ	920 UJ	910 UJ
NAPHTHALENE	176		36000	C	880 U	1100 UJ	920 UJ	910 UJ
PHENANTHRENE	204		1700000	N[8]	**230 J**	1100 UJ	920 UJ	910 UJ
PYRENE	195		1700000	N	**1000 J**	1100 UJ	**400 J**	**345 J**
TOTAL PAHS	1610		NA		**2990**	0 U	1110	1010
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	55 U	57 UJ	57 UJ	56.5 UJ
AROCLOR-1254	59.8	[9]	1100	N[10]	55 U	57 UJ	57 UJ	56.5 UJ
AROCLOR-1260	59.8	[9]	2200	C	**370 J**	**140 J**	57 UJ	56.5 UJ
TOTAL AROCLOR	59.8		2200	C[11]	**370**	**140**	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	1.6 J	0.44 B	1.1 J	1.45 J
ARSENIC	9.8		3.9	C	11.2	10.5 J	12.3 J	11.95 J
BARIUM	130	[15]	15000	N	60.3 J	55.2 J	66.5 J	64.25 J

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-66	SD-67	SD-68	SD-68
SAMPLE ID				SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG
SAMPLE DATE				20081112	20081111	20081112	20081112
SAMPLE CODE				NORMAL	NORMAL	ORIG	AVG
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	8	8
BOTTOM DEPTH				14	14	16	16
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.1 J	2.1 J	2.2 J	2.15 J
CADMIUM	0.99	70	N	**9.8**	**7.7 J**	**12.3 J**	**12.05 J**
CHROMIUM	43.4	120000	N[12]	**172 J**	**162 J**	**265 J**	**252 J**
COBALT	50	23	N	19.3 J	18.5 J	19.3 J	18.9 J
COPPER	31.6	3100	N	**92.7 J**	**88.6 J**	**126 J**	**124 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**196**	**174 J**	**285 J**	**244 J**
MERCURY	0.18	23	N[14]	**0.52**	**0.41 J**	**0.76 J**	**0.785 J**
MOLYBDENUM	NA	390	N	1.5	1.7 B	1.9 J	1.8 J
NICKEL	22.7	1500	N	**47 J**	**43.9 J**	**51.9 J**	**50.6 J**
SELENIUM	2	390	N	**2.6**	1.9 J	**2.4 J**	1.95 J
SILVER	1	390	N	**3.8**	**4 J**	**5.6 J**	**5.6 J**
THALLIUM	21.3 [16]	NA		0.55 U	0.58 UJ	0.56 UJ	0.575 UJ
VANADIUM	57 [15]	390	N	**70.5 J**	**66.3 J**	**88.9 J**	**84.9 J**
ZINC	121	23000	N	**405 J**	**365 J**	**431 J**	**418 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		30	NA	29	29.5
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-68	SD-69	SD-70	SD-71
SAMPLE ID					SD-68-01-D	SD-69-01	SD-70-01	SD-71-01
SAMPLE DATE					20081112	20081111	20081111	20081111
SAMPLE CODE					DUP	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					8	10	10	10
BOTTOM DEPTH					16	14	14	14
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	900 UJ	440 U	1000 UJ	1100 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	900 UJ	440 U	1000 UJ	1100 UJ
ACENAPHTHENE	6.7		3400000	N	900 UJ	440 U	1000 UJ	1100 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	900 UJ	440 U	1000 UJ	1100 UJ
ANTHRACENE	57.2		17000000	N	900 UJ	440 U	1000 UJ	1100 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	**1040**	440 U	1000 U	1100 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	0.13	440 U	1000 U	1100 U
BENZO(A)ANTHRACENE	108		1500	C	900 UJ	440 U	1000 UJ	1100 UJ
BENZO(A)PYRENE	150		150	C	900 UJ	440 U	1000 UJ	1100 UJ
BENZO(B)FLUORANTHENE	NA		1500	C	900 UJ	440 U	1000 UJ	1100 UJ
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	900 UJ	440 U	1000 UJ	1100 UJ
BENZO(K)FLUORANTHENE	240		15000	C	900 UJ	440 U	1000 UJ	1100 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	130 J	440 U	1000 UJ	1100 UJ
DIBENZO(A,H)ANTHRACENE	33		150	C	900 UJ	440 U	1000 UJ	1100 UJ
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	160 J	440 U	**490 J**	210 J
FLUORENE	77.4		2300000	N	900 UJ	440 U	1000 UJ	1100 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	900 UJ	440 U	1000 UJ	1100 UJ
NAPHTHALENE	176		36000	C	900 UJ	440 U	1000 UJ	1100 UJ
PHENANTHRENE	204		1700000	N[8]	900 UJ	440 U	**220 J**	1100 UJ
PYRENE	195		1700000	N	**290 J**	440 U	**800 J**	**460 J**
TOTAL PAHS	1610		NA		580	0 U	1510	670
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	56 UJ	22 U	52 U	53 U
AROCLOR-1254	59.8	[9]	1100	N[10]	56 UJ	22 U	52 U	53 U
AROCLOR-1260	59.8	[9]	2200	C	56 UJ	22 U	**420**	**380**
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	**420**	**380**
METALS (MG/KG)								
ANTIMONY	2		31	N	1.8 J	0.32 L	0.31 UJ	0.32 UJ
ARSENIC	9.8		3.9	C	11.6 J	3.8	12.3	10.2
BARIUM	130	[15]	15000	N	62 J	65.8	60.3	52.9

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-68 SD-68-01-D 20081112 DUP SD NORMAL SB 8 16	SD-69 SD-69-01 20081111 NORMAL SD NORMAL SB 10 14	SD-70 SD-70-01 20081111 NORMAL SD NORMAL SB 10 14	SD-71 SD-71-01 20081111 NORMAL SD NORMAL SB 10 14
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	2.1 J	6.9	2.2	2.1
CADMIUM	0.99	70 N	**11.8 J**	0.0074 U	**9.7**	**7.8**
CHROMIUM	43.4	120000 N[12]	**239 J**	21.9	**223**	**169**
COBALT	50	23 N	18.5 J	**33**	18.1	16.5
COPPER	31.6	3100 N	**122 J**	17	**108 J**	**87.7 J**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**203 J**	8.9	**214**	**158**
MERCURY	0.18	23 N[14]	**0.81 J**	0.015 B	**0.67**	**0.44**
MOLYBDENUM	NA	390 N	1.7 J	0.18	1.6 B	1.8
NICKEL	22.7	1500 N	**49.3 J**	**67.1**	**46.6 J**	**39.9 J**
SELENIUM	2	390 N	1.5 J	0.41 UL	**2.3 J**	1.3 J
SILVER	1	390 N	**5.6 J**	0.079 U	**5.7**	**6.4**
THALLIUM	21.3 [16]	NA	0.59 UJ	0.21 U	0.53 U	0.55 U
VANADIUM	57 [15]	390 N	**80.9 J**	35.6 K	**79.2**	**63.5**
ZINC	121	23000 N	**405 J**	**147**	**390 J**	**352 J**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	30	76	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	2200	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-72	SD-73	SD-74	SD-75
SAMPLE ID				SD-72-01	SD-73-01	SD-74-01	SD-75-01
SAMPLE DATE				20081112	20081111	20081111	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	320 U	740 U	400 U	520 U
2-METHYLNAPHTHALENE	20.2	310000	N	320 U	740 U	400 U	520 U
ACENAPHTHENE	6.7	3400000	N	320 U	740 U	400 U	**94 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	320 U	740 U	400 U	520 U
ANTHRACENE	57.2	17000000	N	320 U	740 U	400 U	**120 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	320 U	740 U	**462**	**923**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	320 U	740 U	0.093	**637**
BENZO(A)ANTHRACENE	108	1500	C	320 U	740 U	400 U	520 U
BENZO(A)PYRENE	150	150	C	320 U	740 U	400 U	**510 J**
BENZO(B)FLUORANTHENE	NA	1500	C	320 U	740 U	400 U	800 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	320 U	740 U	400 U	**420 J**
BENZO(K)FLUORANTHENE	240	15000	C	320 U	740 U	400 U	**830**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	320 U	740 U	93 J	**850**
DIBENZO(A,H)ANTHRACENE	33	150	C	320 U	740 U	400 U	520 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	320 U	740 U	150 J	**830**
FLUORENE	77.4	2300000	N	320 U	740 U	400 U	50 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	320 U	740 U	400 U	**380 J**
NAPHTHALENE	176	36000	C	320 U	740 U	400 U	520 U
PHENANTHRENE	204	1700000	N[8]	320 U	740 U	92 J	**520 J**
PYRENE	195	1700000	N	320 UJ	740 U	160 J	**1300 J**
TOTAL PAHS	1610	NA		0 U	0 U	495	**6704**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	20 UJ	37 U	20 U	33 U
AROCLOR-1254	59.8 [9]	1100	N[10]	20 UJ	37 U	20 U	33 U
AROCLOR-1260	59.8 [9]	2200	C	20 UJ	37 U	22	**160 J**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	22	**160**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.12 UL	0.21 UL	0.36 L	55.1 J
ARSENIC	9.8	3.9	C	3	4.5	4.3	7.3
BARIUM	130 [15]	15000	N	17.5 J	24.2	20.4	54.6 J

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-72	SD-73	SD-74	SD-75
SAMPLE ID			SD-72-01	SD-73-01	SD-74-01	SD-75-01
SAMPLE DATE			20081112	20081111	20081111	20081112
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			10	10	10	10
BOTTOM DEPTH			14	14	14	14
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	0.51 J	1.8	2	1.1 J
CADMIUM	0.99	70 N	0.0069 UL	0.026	0.78	**17.4**
CHROMIUM	43.4	120000 N[12]	13.4 J	24.9	31	**209 J**
COBALT	50	23 N	1.6 J	11.9	12.6	10.3 J
COPPER	31.6	3100 N	10.6 J	17.6	20.9	**113 J**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	4.5 J	8.9	21	**1370**
MERCURY	0.18	23 N[14]	0.0089 B	0.029 B	**0.19**	**1.6**
MOLYBDENUM	NA	390 N	0.25 J	1.5	0.79	3.3
NICKEL	22.7	1500 N	4.1 J	20.1	22.5	**47.9 J**
SELENIUM	2	390 N	0.38 UL	0.7 UL	0.38 UL	1.4
SILVER	1	390 N	0.074 UL	0.13 U	**2.2**	**37.2**
THALLIUM	21.3 [16]	NA	0.2 U	0.36 U	0.2 U	0.34 U
VANADIUM	57 [15]	390 N	19.6 J	35.5 K	31.3 K	**91.8 J**
ZINC	121	23000 N	12.6 J	50.2	61.7	**371 J**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	82	45	83	51
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-76	SD-77	SD-79	SD-80
SAMPLE ID				SD-76-01	SD-77-01	SD-79-01	SD-80-01
SAMPLE DATE				20081111	20081110	20081114	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	3900 U	460 U	820 U	980 U
2-METHYLNAPHTHALENE	20.2	310000	N	3900 U	460 U	820 U	980 U
ACENAPHTHENE	6.7	3400000	N	3900 U	**120 J**	820 U	980 U
ACENAPHTHYLENE	5.9	3400000	N[7]	3900 U	460 U	820 U	980 U
ANTHRACENE	57.2	17000000	N	**440 J**	**270 J**	820 U	980 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**4480**	**906**	820 U	980 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**385**	**906**	820 U	980 U
BENZO(A)ANTHRACENE	108	1500	C	3900 U	**680**	820 U	980 U
BENZO(A)PYRENE	150	150	C	3900 U	**570**	820 U	980 U
BENZO(B)FLUORANTHENE	NA	1500	C	**2400 J**	670 J	820 U	980 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**1200 J**	**330 J**	820 U	980 U
BENZO(K)FLUORANTHENE	240	15000	C	**2200 J**	**600**	820 U	980 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**3000 J**	**900**	820 U	980 U
DIBENZO(A,H)ANTHRACENE	33	150	C	3900 U	**160 J**	820 U	980 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**4800**	**1700**	820 U	980 U
FLUORENE	77.4	2300000	N	3900 U	**130 J**	820 U	980 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**1200 J**	**340 J**	820 U	980 U
NAPHTHALENE	176	36000	C	3900 U	460 U	820 U	980 U
PHENANTHRENE	204	1700000	N[8]	**2000 J**	**920**	820 U	980 U
PYRENE	195	1700000	N	**7200**	**1800**	820 U	980 U
TOTAL PAHS	1610	NA		**24440**	**9190**	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	39 U	23 U	41 U	49 U
AROCLOR-1254	59.8 [9]	1100	N[10]	39 U	23 U	41 U	49 U
AROCLOR-1260	59.8 [9]	2200	C	**150**	18 J	41 U	49 U
TOTAL AROCLOR	59.8	2200	C[11]	**150**	18	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.88 L	0.63 L	0.24 UL	0.28 UJ
ARSENIC	9.8	3.9	C	8	6.6	8	7.8
BARIUM	130 [15]	15000	N	40.3	87.2	36.2	41.7

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-76	SD-77	SD-79	SD-80
SAMPLE ID				SD-76-01	SD-77-01	SD-79-01	SD-80-01
SAMPLE DATE				20081111	20081110	20081114	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	10	10
BOTTOM DEPTH				14	14	14	14
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1.2	1.5	1.5	1.9
CADMIUM	0.99	70	N	**3.7**	**2.3**	0.014 U	0.017 U
CHROMIUM	43.4	120000	N[12]	**59.8**	**65.7**	30.4	37.3
COBALT	50	23	N	12.7	8.5	13.9	16.1
COPPER	31.6	3100	N	**72.5**	**35.6**	17	18.9
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**82.7**	**48.6**	13.5	14.8
MERCURY	0.18	23	N[14]	0.14	**0.33**	0.027	0.027
MOLYBDENUM	NA	390	N	1.4	2.8	0.65 B	0.79 B
NICKEL	22.7	1500	N	**32.3**	21.8	22.4	**26.4**
SELENIUM	2	390	N	0.85 L	0.47 UL	0.78 U	1.5
SILVER	1	390	N	**1.5**	**2.8**	0.15 U	0.18 U
THALLIUM	21.3 [16]	NA		0.39 U	0.25 U	0.41 U	0.48 U
VANADIUM	57 [15]	390	N	45.6 K	34.6 K	44.1	46.2
ZINC	121	23000	N	**290**	**155**	62	78.7
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		43	73	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	4600	NA	20000
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-81	SD-82	SD-83	SD-84
SAMPLE ID				SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE				20081114	20081114	20100820	20100820
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	12	12
BOTTOM DEPTH				14	14	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	510 U	780 U	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	510 U	780 U	NA	NA
ACENAPHTHENE	6.7	3400000	N	510 U	780 U	**16 J**	**29 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	510 U	780 U	**68**	**140**
ANTHRACENE	57.2	17000000	N	510 U	780 U	**63**	**88**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**576**	**877**	**373**	**622**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	14.5	58.3	**373**	**622**
BENZO(A)ANTHRACENE	108	1500	C	510 U	780 U	**190**	**330**
BENZO(A)PYRENE	150	150	C	510 U	780 U	**210**	**320**
BENZO(B)FLUORANTHENE	NA	1500	C	130 J	400 J	380	660
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	59 J	780 U	**210**	**350**
BENZO(K)FLUORANTHENE	240	15000	C	140 J	**290 J**	5.4 U	12 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	140 J	**370 J**	**260**	**400**
DIBENZO(A,H)ANTHRACENE	33	150	C	510 U	780 U	**88**	**170**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	260 J	**500 J**	330	**500**
FLUORENE	77.4	2300000	N	510 U	780 U	24 J	42 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	510 U	**150 J**	**180**	**330**
NAPHTHALENE	176	36000	C	510 U	780 U	30	45 J
PHENANTHRENE	204	1700000	N[8]	150 J	780 U	180	**260**
PYRENE	195	1700000	N	**410 J**	**670 J**	**290**	**430**
TOTAL PAHS	1610	NA		1289	**2380**	**2519**	**4094**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	25 U	390 UJ	1.3 U	1.4 U
AROCLOR-1254	59.8 [9]	1100	N[10]	25 U	390 UJ	1.9 U	2.1 U
AROCLOR-1260	59.8 [9]	2200	C	**70**	**270**	17	2.1 U
TOTAL AROCLOR	59.8	2200	C[11]	**70**	**270**	17	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.16 UJ	0.24 UJ	0.78 L	2.4 L
ARSENIC	9.8	3.9	C	1.9	6.1	5.3 L	5.1 L
BARIUM	130 [15]	15000	N	13.4	34.4	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-81	SD-82	SD-83	SD-84
SAMPLE ID				SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE				20081114	20081114	20100820	20100820
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				10	10	12	12
BOTTOM DEPTH				14	14	12	12
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	0.34	1.2	1.4	2.4
CADMIUM	0.99	70	N	**12.3**	**14.6**	0.83 L	**113 L**
CHROMIUM	43.4	120000	N[12]	**120**	**229**	38.6	**1750**
COBALT	50	23	N	4.2	16.2	NA	NA
COPPER	31.6	3100	N	24	**92.7**	27.9 L	**77 L**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**59**	**143**	**66.5**	**107**
MERCURY	0.18	23	N[14]	**0.23**	**0.52**	**0.35**	**0.32**
MOLYBDENUM	NA	390	N	0.21 B	0.54 B	NA	NA
NICKEL	22.7	1500	N	9.1	**31.5**	21.7 L	**29.6 L**
SELENIUM	2	390	N	0.58	1.3	0.99 L	1.1 L
SILVER	1	390	N	**1.6**	**2.2**	0.23	0.19
THALLIUM	21.3 [16]	NA		0.27 U	0.4 U	0.13	0.18
VANADIUM	57 [15]	390	N	11	35.6	NA	NA
ZINC	121	23000	N	113	**310**	**124 L**	**177 L**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	22900	42300
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-85	SD-86	SD-87	SD-88
SAMPLE ID					SD-85-01	SD-86-01	SD-87-01	SD-88-01
SAMPLE DATE					20100819	20100818	20100818	20100819
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					12	12	12	12
BOTTOM DEPTH					12	12	12	12
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	1.2 J	**350**	**410**	**76 J**
ACENAPHTHYLENE	5.9		3400000	N[7]	1.1 U	**150**	**140 J**	**220**
ANTHRACENE	57.2		17000000	N	0.98 U	**620**	**660**	**320**
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	1 U	**3652**	**3232**	**1564**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	1 U	**3652**	**3232**	**1564**
BENZO(A)ANTHRACENE	108		1500	C	1.3 U	**2400**	**2300**	**760**
BENZO(A)PYRENE	150		150	C	1 U	**2200**	**2000**	**880**
BENZO(B)FLUORANTHENE	NA		1500	C	1.6 U	**3400**	**3200**	**1600**
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	0.99 U	**2000**	**1600**	**910**
BENZO(K)FLUORANTHENE	240		15000	C	2 U	30 U	31 U	22 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	1.2 U	**2300**	**2000**	**930**
DIBENZO(A,H)ANTHRACENE	33		150	C	1.1 U	**700**	**540**	**370**
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	1.9 J	**3900**	**3800**	**1600**
FLUORENE	77.4		2300000	N	1.3 U	**190**	**240**	**100 J**
INDENO(1,2,3-CD)PYRENE	17		1500	C	1 U	**1700**	**1400**	**770**
NAPHTHALENE	176		36000	C	0.86 U	100 J	89 J	**180**
PHENANTHRENE	204		1700000	N[8]	3.4 J	**2300**	**2300**	**600**
PYRENE	195		1700000	N	1.5 J	**4000**	**3500**	**1400**
TOTAL PAHS	1610		NA		8	**26310**	**24179**	**10716**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	1.2 U	**2300**	**550**	2.5 U
AROCLOR-1254	59.8	[9]	1100	N[10]	1.8 U	2.2 U	2.2 U	3.8 U
AROCLOR-1260	59.8	[9]	2200	C	1.8 U	**2300 J**	**800 J**	**1800**
TOTAL AROCLOR	59.8		2200	C[11]	0 U	**4600**	**1350**	**1800**
METALS (MG/KG)								
ANTIMONY	2		31	N	0.11 B	2.2 J	1.3 L	0.69 J
ARSENIC	9.8		3.9	C	2.5 L	4.6	4.2	8.5 L
BARIUM	130	[15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-85	SD-86	SD-87	SD-88
SAMPLE ID			SD-85-01	SD-86-01	SD-87-01	SD-88-01
SAMPLE DATE			20100819	20100818	20100818	20100819
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			12	12	12	12
BOTTOM DEPTH			12	12	12	12
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	1	0.99 J	1	1.8 L
CADMIUM	0.99	70 N	0.14 L	**69**	**64.7**	**15.7 J**
CHROMIUM	43.4	120000 N[12]	13.8	**718 K**	**541**	**277 L**
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	9.5 L	**84.6**	**88.7**	**95.2 L**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	7.2	**211**	**205 K**	**189**
MERCURY	0.18	23 N[14]	0.022 J	**0.31**	**0.37**	**1**
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	13.2 L	**31.6**	**31.5**	**42.1 L**
SELENIUM	2	390 N	0.53 L	0.95	0.88	1.8 L
SILVER	1	390 N	0.042 J	**1.8 J**	**2.7**	**6.8 L**
THALLIUM	21.3 [16]	NA	0.13	0.12	0.16	0.27 K
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	34.5 L	**452**	**497**	**392 L**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	25500	NA	28800	32500
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	0.23 U	NA	2.4	8.8
CADMIUM	NA	NA	0.00026 J	NA	0.48	0.12
CHROMIUM	NA	NA	0.016 J	NA	4.6	2.4
COPPER	NA	NA	0.044	NA	0.18	0.52
LEAD	NA	NA	0.015 J	NA	0.73	0.75
NICKEL	NA	NA	0.035 J	NA	0.16	0.2
SILVER	NA	NA	0.0002 U	NA	0.001 J	0.0083
ZINC	NA	NA	0.11 J	NA	6.9	4.1

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-89	SD-90	SD-91	SD-92
SAMPLE ID				SD-89-01	SD-90-01	SD-91-01	SD-92-01
SAMPLE DATE				20100819	20100817	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**56 J**	**190**	2.1 U	0.95 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**140**	**280**	2.5 U	1.1 U
ANTHRACENE	57.2	17000000	N	**200**	**530**	2.2 U	0.97 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1001**	**3533**	2.2 U	0.99 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**1001**	**3533**	2.2 U	0.99 U
BENZO(A)ANTHRACENE	108	1500	C	**480**	**2100**	2.8 U	1.2 U
BENZO(A)PYRENE	150	150	C	**520**	**2300**	2.2 U	0.99 U
BENZO(B)FLUORANTHENE	NA	1500	C	880	**3600**	3.5 U	1.6 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**610**	**1900**	2.2 U	0.99 U
BENZO(K)FLUORANTHENE	240	15000	C	22 U	9 U	4.5 U	2 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**510**	**2500**	2.6 U	1.2 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**290**	**510**	2.5 U	1.1 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**850**	**5500**	2.4 U	1.1 U
FLUORENE	77.4	2300000	N	59 J	**200**	2.9 U	1.3 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**540**	**1500**	2.3 U	1 U
NAPHTHALENE	176	36000	C	98 J	120	1.9 U	0.85 U
PHENANTHRENE	204	1700000	N[8]	**350**	**1800**	3.5 U	2.4 J
PYRENE	195	1700000	N	**830**	**3400**	2.2 U	1 U
TOTAL PAHS	1610	NA		**6413**	**26430**	0 U	2.4
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.5 U	2.1 U	1 U	1.2 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.8 U	3.1 U	1.6 U	1.8 U
AROCLOR-1260	59.8 [9]	2200	C	**1500**	**1000 J**	1.6 U	1.8 U
TOTAL AROCLOR	59.8	2200	C[11]	**1500**	**1000**	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.95 L	1.4 J	0.18 J	0.13 J
ARSENIC	9.8	3.9	C	8.6	7.6	3.6	7.2
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-89 SD-89-01 20100819 NORMAL SD NORMAL SB 12 12	SD-90 SD-90-01 20100817 NORMAL SD NORMAL SB 12 12	SD-91 SD-91-01 20100817 NORMAL SD NORMAL SB 12 12	SD-92 SD-92-01 20100817 NORMAL SD NORMAL SB 12 12
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	2.2	1.6	2.5	1.8
CADMIUM	0.99	70 N	**17.8 L**	**12.5**	0.18	0.2
CHROMIUM	43.4	120000 N[12]	**336**	**212**	17.6	16.1
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	**107 L**	**130**	23	16.6
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**187**	**257 J**	5.5 J	3.6 K
MERCURY	0.18	23 N[14]	**0.96**	**2**	0.0072 U	0.0082 U
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	**46.5 L**	**41.8**	20.4	16.9
SELENIUM	2	390 N	2 L	1.8	0.66	0.66
SILVER	1	390 N	**7.1**	**8.9**	0.025 J	0.022 J
THALLIUM	21.3 [16]	NA	0.35	0.26 J	0.065 J	0.063 J
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	**441**	**386**	44.7	46.6
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	27300	35900	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	4.6	19	NA	NA
CADMIUM	NA	NA	0.12	0.085	NA	NA
CHROMIUM	NA	NA	2.5	1.6	NA	NA
COPPER	NA	NA	0.41	0.037	NA	NA
LEAD	NA	NA	0.58	0.66	NA	NA
NICKEL	NA	NA	0.18	0.18	NA	NA
SILVER	NA	NA	0.0063	0.00095 J	NA	NA
ZINC	NA	NA	4	4.2	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-93	SD-94	SD-95	SD-95
SAMPLE ID				SD-93-01	SD-94-01	SD-95-01	SD-95-01-AVG
SAMPLE DATE				20100817	20100817	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	ORIG	AVG
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**12 J**	3.9 U	**24 J**	**27 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	**18 J**	4.7 U	**50**	**56**
ANTHRACENE	57.2	17000000	N	35	4 U	**89**	**94.5**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**296**	4.1 U	**612**	**626**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**296**	4.1 U	**612**	**626**
BENZO(A)ANTHRACENE	108	1500	C	**180**	5.1 U	**330**	**325**
BENZO(A)PYRENE	150	150	C	**160**	4.1 U	**350**	**355**
BENZO(B)FLUORANTHENE	NA	1500	C	290	6.5 U	580	610
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	150	4.1 U	**360**	**375**
BENZO(K)FLUORANTHENE	240	15000	C	4 U	8.3 U	8.4 U	8.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	160	4.9 U	**360**	**365**
DIBENZO(A,H)ANTHRACENE	33	150	C	**75**	4.6 U	**140**	**145**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	300	4.4 U	**470**	**475**
FLUORENE	77.4	2300000	N	13 J	5.4 U	34 J	33.5 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**140**	4.2 U	**310**	**320**
NAPHTHALENE	176	36000	C	10 J	3.5 U	50	50
PHENANTHRENE	204	1700000	N[8]	150	6.5 U	**220**	**215**
PYRENE	195	1700000	N	**300**	4.2 U	**630**	**620**
TOTAL PAHS	1610	NA		**1993**	0 U	**3997**	**4066**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.2 U	1.9 U	2.5 U	2.5 U
AROCLOR-1254	59.8 [9]	1100	N[10]	1.8 U	2.9 U	3.7 U	3.7 U
AROCLOR-1260	59.8 [9]	2200	C	**280**	2.9 U	**610**	**495 J**
TOTAL AROCLOR	59.8	2200	C[11]	**280**	0 U	**610**	**495**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.29 L	0.076 J	0.67 L	0.685 L
ARSENIC	9.8	3.9	C	3.9	4.2	8.3	8.35
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-93	SD-94	SD-95	SD-95
SAMPLE ID				SD-93-01	SD-94-01	SD-95-01	SD-95-01-AVG
SAMPLE DATE				20100817	20100817	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	ORIG	AVG
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	1	1.7	2.1	2.15
CADMIUM	0.99	70	N	**2.7**	0.37	**12**	**12.15**
CHROMIUM	43.4	120000	N[12]	37.5	26	**241**	**245.5**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	23.3	18.4	**90.9**	**91.15**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**36.6 K**	9 J	**174 K**	**175.5 K**
MERCURY	0.18	23	N[14]	0.11	0.028 J	**0.66**	**0.64**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	13.9	18.7	**42.7**	**43.05**
SELENIUM	2	390	N	0.6	1	1.9	2
SILVER	1	390	N	0.55	0.065 J	**4.6**	**4.7**
THALLIUM	21.3 [16]	NA		0.07 J	0.15 J	0.28	0.29
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**125**	56	**382**	**384**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-95 SD-95-01-D 20100817 DUP SD NORMAL SB 12 12	SD-96 SD-96-01 20100819 ORIG SD NORMAL SB 12 12	SD-96 SD-96-01-AVG 20100819 AVG SD NORMAL SB 12 12	SD-96 SD-96-01-D 20100819 DUP SD NORMAL SB 12 12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**30 J**	**59 J**	**57 J**	**55 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	**62**	**160**	**145**	**130**
ANTHRACENE	57.2	17000000	N	**100**	**210**	**210**	**210**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**639**	**1169**	**1072**	**976**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**639**	**1169**	**1072**	**976**
BENZO(A)ANTHRACENE	108	1500	C	**320**	**560**	**535**	**510**
BENZO(A)PYRENE	150	150	C	**360**	**640**	**575**	**510**
BENZO(B)FLUORANTHENE	NA	1500	C	640	1100	1000	900
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**390**	**680**	**640**	**600**
BENZO(K)FLUORANTHENE	240	15000	C	8.4 U	22 U	21.5 U	21 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**370**	**610**	**555**	**500**
DIBENZO(A,H)ANTHRACENE	33	150	C	**150**	**300**	**285**	**270**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**480**	**1100**	**1030**	**960**
FLUORENE	77.4	2300000	N	33 J	77 J	69 J	61 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**330**	**620**	**580**	**540**
NAPHTHALENE	176	36000	C	50	130	125	120
PHENANTHRENE	204	1700000	N[8]	**210**	**410**	**395**	**380**
PYRENE	195	1700000	N	**610**	**1100**	**995**	**890**
TOTAL PAHS	1610	NA		**4135**	**7756**	**7196**	**6636**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.5 U	2.5 U	2.45 U	2.4 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.7 U	3.7 U	3.7 U	3.7 U
AROCLOR-1260	59.8 [9]	2200	C	**380 J**	**1900**	**1850**	**1800**
TOTAL AROCLOR	59.8	2200	C[11]	**380**	**1900**	**1850**	**1800**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.7 L	0.61 J	0.805 L	1 L
ARSENIC	9.8	3.9	C	8.4	7.5 L	8.25 L	9
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-95 SD-95-01-D 20100817 DUP SD NORMAL SB 12 12	SD-96 SD-96-01 20100819 ORIG SD NORMAL SB 12 12	SD-96 SD-96-01-AVG 20100819 AVG SD NORMAL SB 12 12	SD-96 SD-96-01-D 20100819 DUP SD NORMAL SB 12 12
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	2.2	1.8 L	2.05 L	2.3
CADMIUM	0.99	70 N	**12.3**	**14.9 J**	**16.3 L**	**17.7 L**
CHROMIUM	43.4	120000 N[12]	**250**	**276 L**	**304.5 L**	**333**
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	**91.4**	**121 L**	**113.5 L**	**106 L**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**177 K**	**148**	**166**	**184**
MERCURY	0.18	23 N[14]	**0.62**	**0.9**	**0.88**	**0.86**
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	**43.4**	**39.4 L**	**43.05 L**	**46.7 L**
SELENIUM	2	390 N	**2.1**	1.8 L	1.95 L	**2.1 L**
SILVER	1	390 N	**4.8**	**6.3 L**	**6.8 L**	**7.3**
THALLIUM	21.3 [16]	NA	0.3	0.28 K	0.31 K	0.34
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	**386**	**377 L**	**403.5 L**	**430**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-97	SD-98	SD-99	SD-100
SAMPLE ID				SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE				20100817	20100819	20100819	20100819
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**22 J**	**62 J**	7.9 U	4 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**47 J**	**150**	9.4 U	4.8 U
ANTHRACENE	57.2	17000000	N	**75 J**	**240**	8 U	4.1 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**409**	**1254**	8.2 U	4.2 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**409**	**1254**	8.2 U	4.2 U
BENZO(A)ANTHRACENE	108	1500	C	**190 J**	**620**	10 U	5.2 U
BENZO(A)PYRENE	150	150	C	**210 J**	**700**	8.2 U	4.2 U
BENZO(B)FLUORANTHENE	NA	1500	C	370 J	1300	13 U	6.6 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**240 J**	**750**	8.1 U	4.2 U
BENZO(K)FLUORANTHENE	240	15000	C	12 UJ	20 U	17 U	8.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**220 J**	**750**	9.7 U	5 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**120 J**	**300**	9.1 U	4.6 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**500 J**	**1200**	8.7 U	24 J
FLUORENE	77.4	2300000	N	37 J	**92 J**	11 U	5.5 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**230 J**	**610**	8.4 U	4.3 U
NAPHTHALENE	176	36000	C	86 J	160	7 U	3.6 U
PHENANTHRENE	204	1700000	N[8]	190 J	**490**	13 U	15 J
PYRENE	195	1700000	N	**360 J**	**1100**	8.3 U	17 J
TOTAL PAHS	1610	NA		**2897**	**8524**	0 U	56
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.8 UJ	2.3 U	1.9 U	1.9 U
AROCLOR-1254	59.8 [9]	1100	N[10]	4.3 UJ	3.5 U	2.8 U	2.9 U
AROCLOR-1260	59.8 [9]	2200	C	**210 J**	**920**	2.8 U	2.9 U
TOTAL AROCLOR	59.8	2200	C[11]	**210**	**920**	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	1 J	0.68 J	0.076 B	0.14 B
ARSENIC	9.8	3.9	C	11 J	8.2 L	5.4	4.1 L
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-97	SD-98	SD-99	SD-100
SAMPLE ID				SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE				20100817	20100819	20100819	20100819
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
METALS (CONTINUED) (MG/KG)							
BERYLLIUM	NA	160	N	2.6 J	2 L	1.7	1.3 L
CADMIUM	0.99	70	N	**22 J**	**19 J**	0.4 L	0.28 J
CHROMIUM	43.4	120000	N[12]	**423 J**	**336 L**	27.7	25.1 L
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**110 J**	**99.6 L**	20.1 L	18.4 L
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**149 J**	**169**	12.5	14.6
MERCURY	0.18	23	N[14]	**0.99 J**	**0.92**	0.035 J	0.074
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**46.4 J**	**44.1 L**	20.5 L	19.3 L
SELENIUM	2	390	N	**2.2 J**	2 L	1.2 L	0.96 L
SILVER	1	390	N	**5 J**	**6.6 L**	0.068 J	0.062 J
THALLIUM	21.3 [16]	NA		0.3 J	0.34	0.17 K	0.19 K
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**439 J**	**421 L**	67.4	62.1 L
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	34900	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	0.38 U	NA
CADMIUM	NA	NA		NA	NA	0.0014 J	NA
CHROMIUM	NA	NA		NA	NA	0.033	NA
COPPER	NA	NA		NA	NA	0.06	NA
LEAD	NA	NA		NA	NA	0.024	NA
NICKEL	NA	NA		NA	NA	0.047	NA
SILVER	NA	NA		NA	NA	0.00033 U	NA
ZINC	NA	NA		NA	NA	0.37	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-101	SD-102	SD-103	SD-104
SAMPLE ID				SD-101-01	SD-102-01	SD-103-01	SD-104-01
SAMPLE DATE				20100818	20100818	20100818	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				12	12	12	12
BOTTOM DEPTH				12	12	12	12
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**19 J**	10 U	1.1 U	4.2 U
ACENAPHTHYLENE	5.9	3400000	N[7]	**31 J**	**36 J**	1.3 U	5 U
ANTHRACENE	57.2	17000000	N	57 J	44 J	1.1 U	4.3 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**380**	**238**	1.1 U	4.4 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**380**	**232**	1.1 U	4.4 U
BENZO(A)ANTHRACENE	108	1500	C	**170**	**150**	1.4 U	5.5 U
BENZO(A)PYRENE	150	150	C	**180**	150	1.1 U	4.4 U
BENZO(B)FLUORANTHENE	NA	1500	C	310	350	1.7 U	6.9 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**230**	**310**	1.1 U	4.4 U
BENZO(K)FLUORANTHENE	240	15000	C	20 U	22 U	2.2 U	8.9 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**190**	**180**	1.3 U	5.2 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**130**	12 U	1.2 U	4.9 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	260	310	1.8 J	4.8 J
FLUORENE	77.4	2300000	N	17 J	34 J	1.5 U	5.8 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**220**	**320**	1.1 U	4.5 U
NAPHTHALENE	176	36000	C	44 J	53 J	0.96 U	3.8 U
PHENANTHRENE	204	1700000	N[8]	120	130	2.8 J	7 U
PYRENE	195	1700000	N	**310**	**330**	1.1 U	4.7 J
TOTAL PAHS	1610	NA		**2288**	**2397**	4.6	9.5
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2.3 U	2.6 U	1.3 U	2.1 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.5 U	3.9 U	2 U	3.1 U
AROCLOR-1260	59.8 [9]	2200	C	**240**	**250**	2 U	3.1 U
TOTAL AROCLOR	59.8	2200	C[11]	**240**	**250**	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.59 L	0.68 J	0.057 B	0.094 B
ARSENIC	9.8	3.9	C	8.7	9.8	2.3	5.6
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-101 SD-101-01 20100818 NORMAL SD NORMAL SB 12 12	SD-102 SD-102-01 20100818 NORMAL SD NORMAL SB 12 12	SD-103 SD-103-01 20100818 NORMAL SD NORMAL SB 12 12	SD-104 SD-104-01 20100818 NORMAL SD NORMAL SB 12 12
METALS (CONTINUED) (MG/KG)						
BERYLLIUM	NA	160 N	1.8	2.1 J	0.73 J	1.6 J
CADMIUM	0.99	70 N	**12.6**	**11.2**	0.19	0.42
CHROMIUM	43.4	120000 N[12]	**247**	**251 K**	14.1 K	31.7 K
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	**98.8**	**111**	7.8	22.1
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**158 K**	**168**	5.9	17.1
MERCURY	0.18	23 N[14]	**0.6**	**0.73**	0.019 J	0.048
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	**39.8**	**45.1**	10.5	**23**
SELENIUM	2	390 N	1.7	1.8	0.51	1.1
SILVER	1	390 N	**3.1**	**4.3 J**	0.02 J	0.074 J
THALLIUM	21.3 [16]	NA	0.27	0.3	0.096	0.2
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	**371**	**406**	33.4	72.3
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	26000	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	10.5	NA	NA	NA
CADMIUM	NA	NA	0.084	NA	NA	NA
CHROMIUM	NA	NA	1.5	NA	NA	NA
COPPER	NA	NA	0.41	NA	NA	NA
LEAD	NA	NA	0.51	NA	NA	NA
NICKEL	NA	NA	0.17	NA	NA	NA
SILVER	NA	NA	0.004	NA	NA	NA
ZINC	NA	NA	3.4	NA	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-105 SD-105-01 20100818 NORMAL SD NORMAL SB 12 12	SD-106 SD-106-01 20100818 NORMAL SD NORMAL SB 12 12
VOLATILES (UG/KG)					
1,3-DICHLOROBENZENE	4430	NA		NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA
NAPHTHALENE	176	36000	C	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA
SEMIVOLATILES (UG/KG)					
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA
ACENAPHTHENE	6.7	3400000	N	**23 J**	8.8 U
ACENAPHTHYLENE	5.9	3400000	N[7]	13 U	10 U
ANTHRACENE	57.2	17000000	N	**61 J**	8.9 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**565**	9.1 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**565**	9.1 U
BENZO(A)ANTHRACENE	108	1500	C	**200**	11 U
BENZO(A)PYRENE	150	150	C	**240**	9.1 U
BENZO(B)FLUORANTHENE	NA	1500	C	480	14 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**360**	9.1 U
BENZO(K)FLUORANTHENE	240	15000	C	22 U	18 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA
CARBAZOLE	NA	NA		NA	NA
CHRYSENE	166	150000	C	**240**	11 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**220**	10 U
DIBENZOFURAN	415	78000	N	NA	NA
FLUORANTHENE	423	2300000	N	290	9.8 U
FLUORENE	77.4	2300000	N	24 J	12 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**370**	9.4 U
NAPHTHALENE	176	36000	C	58 J	7.9 U
PHENANTHRENE	204	1700000	N[8]	140	15 U
PYRENE	195	1700000	N	**440**	9.2 U
TOTAL PAHS	1610	NA		**3146**	0 U
PCBS (UG/KG)					
AROCLOR-1248	59.8 [9]	2200	C	2.6 U	2.2 U
AROCLOR-1254	59.8 [9]	1100	N[10]	3.9 U	3.2 U
AROCLOR-1260	59.8 [9]	2200	C	**230**	3.2 U
TOTAL AROCLOR	59.8	2200	C[11]	**230**	0 U
METALS (MG/KG)					
ANTIMONY	2	31	N	0.65 J	0.087 B
ARSENIC	9.8	3.9	C	10.8	**5 L**
BARIUM	130 [15]	15000	N	NA	NA

Table 4-4
Detected Concentrations Table for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-105 SD-105-01 20100818 NORMAL SD NORMAL SB 12 12	SD-106 SD-106-01 20100818 NORMAL SD NORMAL SB 12 12
METALS (CONTINUED) (MG/KG)				
BERYLLIUM	NA	160 N	1.9	1.4 L
CADMIUM	0.99	70 N	**5.7**	0.26 J
CHROMIUM	43.4	120000 N[12]	**153 K**	26.6 L
COBALT	50	23 N	NA	NA
COPPER	31.6	3100 N	**142**	16.5 L
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA
LEAD	35.8	400	**144**	12.7
MERCURY	0.18	23 N[14]	**0.56**	0.052
MOLYBDENUM	NA	390 N	NA	NA
NICKEL	22.7	1500 N	**44.3**	19.6 L
SELENIUM	2	390 N	1.9	0.98 L
SILVER	1	390 N	**2.2 J**	0.059 J
THALLIUM	21.3 [16]	NA	0.26	0.18 K
VANADIUM	57 [15]	390 N	NA	NA
ZINC	121	23000 N	**389**	65.8 L
METALS (UG/KG)				
DIBUTYLTIN	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)				
PERCENT SOLIDS	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)				
TOTAL ORGANIC CARBON	NA	NA	NA	NA
AVS/SEM (UMOLES/G)				
ACID VOLATILE SULFIDE	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA
COPPER	NA	NA	NA	NA
LEAD	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA
SILVER	NA	NA	NA	NA
ZINC	NA	NA	NA	NA

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).
2 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.
3 - Concentrations exceeding the ESV are shaded black with white font. Concentrations exceeding the adjusted RSL for residential soil are shaded blue with black font. Concentrations exceeding both the ESV and the RSL are shaded red with white font.
4 - TCEQ Ecological Benchmarks for Sediment, January 2006.
5 - Value for trans-1,2-dichloroethene used as a surrogate for cis-1,2-dichloroethene.
6 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.
7 - The value for acenapthene is used as a surrogate for acenaphthylene.
8 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
9 - Value for Total PCBs used as a surrogate for Aroclor-1248, Aroclor-1254 and Aroclor-1260.
10 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.
11 - The value is for high risk PCBs.
12 - The value is for trivalent chromium.
13 - The value is for hexavalent chromium.
14 - The value is for mercuric chloride.
15 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
16 - Value is for marine sediment.

Definitions:
B = Blank contamination
C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available
R = Rejected
SS = Surface sediment
SD = Sediment
U = Non-detected

Table 4-5
Occurrence and Distribution of Chemicals - Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Volatile Organics (ug/kg)												
2-BUTANONE	3/5	18 J	37 J	SD-19	52	64	27	28	25710 [6]	0	28000000 N	0
ACETONE	3/10	36 J	220	SD-19	50	270	152	87.7	60030 [6]	0	61000000 N	0
CARBON DISULFIDE	6/10	5 J	19 J	SD-14	13	15	8.0	7.6	0.851	6	820000 N	0
ISOPROPYLBENZENE	2/10	3 J	10 J	SD-19	9	54	6.5	8.4	86	0	2100000 N	0
METHYL TERT-BUTYL ETHER	2/10	3 J	4 J	SD-16	21	110	3.5	15.5	NA	0	430000 C	0
SEC-BUTYLBENZENE	2/10	20 L	33	SD-19	9	54	26.5	12.4	880 [6]	0	NA	0
TERT-BUTYLBENZENE	1/10	2 J	2 J	SD-19	9	54	2.0	8.1	1210 [6]	0	NA	0
TOLUENE	1/10	2 J	2 J	SD-31	9	54	2.0	8.3	2880 [6]	0	5000000 N	0
Semivolatile Organics (ug/kg)												
1,2-DICHLOROBENZENE	1/9	260 J	260 J	SD-13	710	1000	260	418	16.5	1	1900000 N	0
1,4-DICHLOROBENZENE	2/9	100 J	180 J	SD-13	100	1000	140	331	599	0	24000 C	0
1-METHYLNAPHTHALENE	1/47	150 J	150 J	SD-58	320	3900	150	429	20.2 [7]	1	220000 C	0
2-METHYLNAPHTHALENE	2/47	220 J	340 J	SD-13	320	3900	280	427	20.2	2	310000 N	0
ACENAPHTHENE	22/71	1.2 J	2400 J	SD-58	0.95	3900	277	329	6.7	21	3400000 N	0
ACENAPHTHYLENE	14/71	18 J	280	SD-90	1.1	3900	116	312	5.9	14	3400000 N[8]	0
ANTHRACENE	29/71	35	4400 J	SD-58	0.97	1400	477	381	57.2	26	17000000 N	0
BAP EQUIVALENT-1/2 NON-DETECTS	44/71	238	12075	SD-58	0.99	1100	1907	1280	NA	0	150 C	44
BAP EQUIVALENT-POSITIVE RESULTS	44/71	0.093	12075	SD-58	0.99	1100	1436	988	NA	0	150 C	29
BENZO(A)ANTHRACENE	26/71	150	12000	SD-58	1.2	3900	1715	850	108	26	1500 C	8
BENZO(A)PYRENE	28/71	150	9000	SD-58	0.99	3900	1504	807	150	27	150 C	27
BENZO(B)FLUORANTHENE	43/71	120 J	10000 J	SD-13	1.6	1100	1510	1016	NA	0	1500 C	10
BENZO(G,H,I)PERYLENE	33/71	59 J	4800 J	SD-13	0.99	1400	972	617	170	30	1700000 N[9]	0
BENZO(K)FLUORANTHENE	27/71	100 J	7300	SD-58	2	1100	1074	517	240	23	15000 C	0
BIS(2-ETHYLHEXYL)PHTHALATE	6/9	340 J	3400 J	SD-13	710	850	1080	848	180	6	350000 C	0
BUTYL BENZYL PHTHALATE	1/9	830 J	830 J	SD-13	710	1000	830	481	10900	0	2600000 C	0
CARBAZOLE	4/9	310 J	1000 J	SD-13	710	940	595	495	NA	0	NA	0
CHRYSENE	44/71	93 J	12000	SD-58	1.2	1100	1339	928	166	39	150000 C	0
DIBENZO(A,H)ANTHRACENE	19/71	75	790 J	SD-13	1.1	3900	340	350	33	19	150 C	14
DIBENZOFURAN	2/9	270 J	400 J	SD-13	710	1000	335	416	415	0	78000 N	0
FLUORANTHENE	51/71	1.8 J	20000 J	SD-58	1.1	1100	1791	1362	423	34	2300000 N	0
FLUORENE	23/71	13 J	2000 J	SD-58	1.3	3900	226	316	77.4	12	2300000 N	0
INDENO(1,2,3-CD)PYRENE	39/71	63 J	5600 J	SD-13	1	1100	855	592	17	39	1500 C	6
NAPHTHALENE	21/71	10 J	550 J	SD-13	0.85	3900	151	293	176	7	36000 C	0
PHENANTHRENE	46/71	2.4 J	15000 J	SD-58	3.5	1200	1160	860	204	33	1700000 N[9]	0
PYRENE	50/71	1.5 J	24000 J	SD-13	1	1100	2391	1760	195	46	1700000 N	0
TOTAL PAHS	52/71	2.4	118470	SD-58	0	0	11657	8537	1610	40	NA	0
PCBs (ug/kg)												
AROCLOR-1248	2/71	550	2300	SD-86	1	3000	1425	74.8	59.8 [10]	2	2200 C	1
AROCLOR-1260	42/71	17	14000	SD-58	1.6	57	968	578	59.8 [10]	39	2200 C	3
TOTAL AROCLOR	42/71	17	14000	SD-58	0	0	1036	613	59.8	39	2200 C[11]	3
Metals (mg/kg)												
ANTIMONY	38/72	0.076 J	55.1 J	SD-75	0.057	1.64	2.7	1.5	2	7	31 N	1
ARSENIC	71/72	1.4	12.6	SD-31	1.46	1.46	7.1	7.0	9.8	16	3.9 C	58
BARIUM	48/48	8.1	236	SD-58	--	--	53.8	53.8	130 [15]	1	15000 N	0
BERYLLIUM	72/72	0.34	6.9	SD-69	--	--	1.8	1.8	NA	0	160 N	0
CADMIUM	66/72	0.026	306	SD-46	0.0069	0.037	22.0	20.2	0.99	48	70 N	4
CHROMIUM	72/72	8.9	2460	SD-46	--	--	293	293	43.4	48	120000 N[12]	0
COBALT	48/48	1.6 J	33	SD-69	--	--	15.9	15.9	50	0	23 N	3
COPPER	72/72	5.1	178 J	SD-65	--	--	70.1	70.1	31.6	47	3100 N	0
HEXAVALENT CHROMIUM	1/10	1.6	1.6	SD-42	1	1.6	1.6	0.77	43.4	0	2.9 C[13]	0
LEAD	72/72	2.9	1370	SD-75	--	--	131	131	35.8	50	400	2
MERCURY	62/72	0.015	3.5 L	SD-16	0.0072	0.1	0.60	0.52	0.18	47	23 N[14]	0
MOLYBDENUM	38/48	0.18	3.3	SD-75	0.21	1.7	1.4	1.2	NA	0	390 N	0
NICKEL	72/72	4.1 J	70.4	SD-46	--	--	34.2	34.2	22.7	50	1500 N	0
SELENIUM	56/72	0.51	2.6	SD-66	0.38	1.44	1.5	1.2	2	10	390 N	0
SILVER	61/72	0.02 J	37.2	SD-75	0.074	0.42	5.7	4.8	1	45	390 N	0
THALLIUM	26/72	0.063 J	2.1	SD-16	0.2	2.45	0.28	0.30	21.3 [16]	0	NA	0
VANADIUM	48/48	11	110	SD-16	--	--	54.3	54.3	57 [15]	20	390 N	0
ZINC	72/72	10.8	1300	SD-58	--	--	293	293	121	50	23000 N	0
Metals (ug/kg)												
DIBUTYLTIN	1/3	5	5	SD-40	3	3.5	5	2.8	NA	0	NA	0

Table 4-5
Occurrence and Distribution of Chemicals - Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Miscellaneous Parameters (%)												
PERCENT SOLIDS	37/37	24	85	SD-44	--	--	45.6	45.6	NA	0	NA	0
Miscellaneous Parameters (mg/kg)												
TOTAL ORGANIC CARBON	18/18	2200	46000	SD-40	--	--	25606	25606	NA	0	NA	0
AVS/SEM (umoles/g)												
ACID VOLATILE SULFIDE	5/7	2.4	19	SD-90	0.23	0.38	9.1	6.5	NA	0	NA	0
CADMIUM	7/7	0.0003 J	0.48	SD-87	--	--	0.13	0.13	NA	0	NA	0
CHROMIUM	7/7	0.016 J	4.6	SD-87	--	--	1.8	1.8	NA	0	NA	0
COPPER	7/7	0.037	0.52	SD-88	--	--	0.24	0.24	NA	0	NA	0
LEAD	7/7	0.015 J	0.75	SD-88	--	--	0.47	0.47	NA	0	NA	0
NICKEL	7/7	0.035 J	0.2	SD-88	--	--	0.14	0.14	NA	0	NA	0
SILVER	5/7	0.001 J	0.0083	SD-88	0.0002	0.00033	0.0041	0.0030	NA	0	NA	0
ZINC	7/7	0.11 J	6.9	SD-87	--	--	3.3	3.3	NA	0	NA	0

Notes:

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.

2 - Average of positive analytical results only.

3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).

5 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.

6 - TCEQ Ecological Benchmarks for Sediment, January 2006.

7 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.

8 - The value for acenapthene is used as a surrogate for acenaphthylene.

9 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.

10 - Value for Total PCBs used as a surrogate for Aroclor-1248 and Aroclor-1260.

11 - The value is for high risk PCBs.

12 - The value is for trivalent chromium.

13 - The value is for hexavalent chromium.

14 - The value is for mercuric chloride.

15 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.

16 - Value is for marine sediment.

Definitions:

C = Carcinogenic
J = Estimated
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available

Associated Samples:

SD-94-01	SD-27-01	SD-55-01	SD-73-01	SD-93-01
SD-95-01	SD-28-01	SD-56-01	SD-74-01	
SD-95-01-D	SD-29-01	SD-57-01	SD-75-01	
SD-96-01	SD-31-01	SD-58-01	SD-76-01	
SD-96-01-D	SD-40-01	SD-59-01	SD-77-01	
SD-97-01	SD-42-01	SD-60-01	SD-79-01	
SD-98-01	SD-43-01	SD-61-01	SD-80-01	
SD-99-01	SD-44-01	SD-62-01	SD-81-01	
SD-100-01	SD-45-01	SD-63-01	SD-82-01	
SD-101-01	SD-46-01	SD-64-01	SD-83-01	
SD-102-01	SD-46-01-D	SD-65-01	SD-84-01	
SD-103-01	SD-47-01	SD-66-01	SD-85-01	
SD-104-01	SD-48-01	SD-67-01	SD-86-01	
SD-105-01	SD-49-01	SD-68-01	SD-87-01	
SD-106-01	SD-50-01	SD-68-01-D	SD-88-01	
SD-13-01	SD-50-01-D	SD-69-01	SD-89-01	
SD-14-01	SD-51-01	SD-70-01	SD-90-01	
SD-16-01	SD-53-01	SD-71-01	SD-91-01	
SD-19-01	SD-54-01	SD-72-01	SD-92-01	

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-13
SAMPLE ID				BOWLEYS_QUARTERS-02	MIDDLE_RIVER_DOWNSTREAM-02	MARSHY_POINT-02	SD-13-02
SAMPLE DATE				20100821	20100820	20100821	20051020
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				BACKGROUND	OFFSITE	BACKGROUND	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	12 U
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	12 U
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	61 UR
ACETONE	60030 [4]	61000000	N	NA	NA	NA	120 B
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	12 U
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	12 U
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	24 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	12 U
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	38 K
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	24 U
NAPHTHALENE	176	36000	C	NA	NA	NA	12 U
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	180 K
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	12 U
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	12 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	800 U
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	800 U
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	800 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	800 U
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	**520 J**
ACENAPHTHENE	6.7	3400000	N	3.9 U	2.6 U	4.4 U	**600 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	4.7 U	3.1 U	5.3 U	**110 J**
ANTHRACENE	57.2	17000000	N	4 U	4.8 J	4.5 U	**1400 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	4.1 U	2.7 U	4.6 U	**8963**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	4.1 U	2.7 U	4.6 U	**8963**
BENZO(A)ANTHRACENE	108	1500	C	5.1 U	3.4 U	5.8 U	**5800 J**
BENZO(A)PYRENE	150	150	C	4.1 U	2.7 U	4.6 U	**6000 J**
BENZO(B)FLUORANTHENE	NA	1500	C	6.5 U	4.3 U	7.2 U	**8400 J**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	4.1 U	2.7 U	4.6 U	**3900 J**
BENZO(K)FLUORANTHENE	240	15000	C	8.3 U	5.5 U	9.3 U	**3400 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	**350 J**
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	800 UJ
CARBAZOLE	NA	NA		NA	NA	NA	400 J
CHRYSENE	166	150000	C	4.9 U	3.3 U	5.5 U	**8900 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	4.6 U	3 U	5.1 U	**1100 J**
DIBENZOFURAN	415	78000	N	NA	NA	NA	330 J
FLUORANTHENE	423	2300000	N	4.4 U	12 J	4.9 U	**9700 J**
FLUORENE	77.4	2300000	N	5.4 U	3.6 U	6.1 U	**920**
INDENO(1,2,3-CD)PYRENE	17	1500	C	4.2 U	2.8 U	4.7 U	**4000 J**
NAPHTHALENE	176	36000	C	3.5 U	2.4 U	4 U	**860**
PHENANTHRENE	204	1700000	N[8]	6.5 U	11 J	7.3 U	**6200 J**
PYRENE	195	1700000	N	4.2 U	8.9 J	4.7 U	**24000 J**
TOTAL PAHS	1610	NA		0 U	36.7	0 U	**85810**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.9 U	2.2 U	2.2 U	41 U
AROCLOR-1254	59.8 [9]	1100	N[10]	2.9 U	3.2 U	3.3 U	41 U
AROCLOR-1260	59.8 [9]	2200	C	2.9 U	3.2 U	3.3 U	**670**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	**670**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.073 J	0.7 L	0.096 J	**3.4**
ARSENIC	9.8	3.9	C	**5**	**7.7 L**	**6.9**	**5.6**
BARIUM	130 [15]	15000	N	NA	NA	NA	112

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	BOWLEY BOWLEYS_QUARTERS-02 20100821 NORMAL SD BACKGROUND SB 24 24	DOWNSTREAM MIDDLE_RIVER_DOWNSTREAM-02 20100820 NORMAL SD OFFSITE SB 24 24	MARSHY_POINT MARSHY_POINT-02 20100821 NORMAL SD BACKGROUND SB 24 24	SD-13 SD-13-02 20051020 NORMAL SD NORMAL SB 24 24
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	1	1.6	1.5	2
CADMIUM	0.99	70 N	0.28	0.69 L	0.36	**21.8**
CHROMIUM	43.4	120000 N[12]	23.1	37	33.2	**499**
COBALT	50	23 N	NA	NA	NA	13.9
COPPER	31.6	3100 N	15.6	26.2 L	16.2	**67.4**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	1.2 UL
LEAD	35.8	400	14.2	27.6	18.7	**169**
MERCURY	0.18	23 N[14]	0.05	0.083	0.053	**1.9 L**
MOLYBDENUM	NA	390 N	NA	NA	NA	2.7
NICKEL	22.7	1500 N	18.7	**25.6 L**	**27.6**	**34.2**
SELENIUM	2	390 N	1	1.3 L	1.3	0.57 L
SILVER	1	390 N	0.064 J	0.11 J	0.078 J	**28.6**
THALLIUM	21.3 [16]	NA	0.18	0.23	0.21	1.3
VANADIUM	57 [15]	390 N	NA	NA	NA	51.7
ZINC	121	23000 N	61.1	93.5 L	95.9	**452**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	41
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	24600	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-14	SD-16	SD-19	SD-27
SAMPLE ID				SD-14-02	SD-16-02	SD-19-02	SD-27-02
SAMPLE DATE				20051020	20051020	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		10 UL	16 U	7 U	7 U
1,4-DICHLOROBENZENE	599	24000	C	10 UL	16 U	7 U	7 U
2-BUTANONE	25710 [4]	28000000	N	52 UR	40 J	21 J	34 UR
ACETONE	60030 [4]	61000000	N	52 B	240	110	21 B
CARBON DISULFIDE	0.851	820000	N	10 UL	**11 J**	7 U	7 U
CHLOROBENZENE	8.42	290000	N	10 UL	16 U	7 U	7 J
CHLOROMETHANE	17800 [4]	120000	N	21 UL	31 U	14 U	14 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	10 UL	16 U	2 J	7 U
ISOPROPYLBENZENE	86	2100000	N	10 UL	16 U	3 J	7 U
METHYL TERT-BUTYL ETHER	NA	430000	C	21 UL	2 J	14 U	14 U
NAPHTHALENE	176	36000	C	10 UL	16 U	7 U	7 U
SEC-BUTYLBENZENE	880 [4]	NA		10 UL	16 U	7 J	7 U
TERT-BUTYLBENZENE	1210 [4]	NA		10 UL	16 U	7 U	7 U
TOLUENE	2880 [4]	5000000	N	10 UL	16 U	10	1 J
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	680 U	1000 U	490 U	460 U
1,3-DICHLOROBENZENE	4430	NA		680 U	1000 U	490 U	460 U
1,4-DICHLOROBENZENE	599	24000	C	680 U	1000 U	490 U	460 U
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	680 U	1000 U	490 U	460 U
2-METHYLNAPHTHALENE	20.2	310000	N	680 U	**340 J**	490 U	460 U
ACENAPHTHENE	6.7	3400000	N	680 U	**530 J**	490 U	460 U
ACENAPHTHYLENE	5.9	3400000	N[7]	680 U	1000 U	490 U	460 U
ANTHRACENE	57.2	17000000	N	680 U	**1100**	490 U	460 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	680 U	**5716**	**466**	460 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	680 U	**5716**	**194**	460 U
BENZO(A)ANTHRACENE	108	1500	C	680 U	**3600 J**	**150 J**	460 U
BENZO(A)PYRENE	150	150	C	680 U	**3900 J**	**160 J**	460 U
BENZO(B)FLUORANTHENE	NA	1500	C	680 U	**5200 J**	190 J	460 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	680 U	**2300 J**	490 UJ	460 U
BENZO(K)FLUORANTHENE	240	15000	C	680 U	**2100 J**	490 UJ	460 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	680 U	**350 J**	140 J	460 U
BUTYL BENZYL PHTHALATE	10900	2600000	C	680 U	1000 UJ	490 UJ	460 U
CARBAZOLE	NA	NA		680 U	410 J	490 U	460 U
CHRYSENE	166	150000	C	680 U	**5000 J**	**200 J**	460 U
DIBENZO(A,H)ANTHRACENE	33	150	C	680 U	**640 J**	490 UJ	460 U
DIBENZOFURAN	415	78000	N	680 U	240 J	490 U	460 U
FLUORANTHENE	423	2300000	N	680 U	**7700**	340 J	460 U
FLUORENE	77.4	2300000	N	680 U	**490 J**	490 U	460 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	680 U	**2700 J**	490 UJ	460 U
NAPHTHALENE	176	36000	C	680 U	**540 J**	490 U	460 U
PHENANTHRENE	204	1700000	N[8]	680 U	**3700**	170 J	460 U
PYRENE	195	1700000	N	680 U	**10000 J**	**370 J**	460 U
TOTAL PAHS	1610	NA		0 U	**49840**	1580	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	35 U	53 U	25 U	24 U
AROCLOR-1254	59.8 [9]	1100	N[10]	35 U	53 U	25 U	24 U
AROCLOR-1260	59.8 [9]	2200	C	35 U	53 U	49 J	**67 J**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	49	**67**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.65 U	**2.2**	0.46 U	0.38 UL
ARSENIC	9.8	3.9	C	3.8	2.8	3	2.1
BARIUM	130 [15]	15000	N	26.3	104	28.2	8

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-14	SD-16	SD-19	SD-27
SAMPLE ID				SD-14-02	SD-16-02	SD-19-02	SD-27-02
SAMPLE DATE				20051020	20051020	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.7	2.6	1.1	1.1
CADMIUM	0.99	70	N	0.52	**56.4**	**2.7**	0.64
CHROMIUM	43.4	120000	N[12]	35.6	**1080**	**79**	24.2 K
COBALT	50	23	N	9.5	18.2	6.4	3.9
COPPER	31.6	3100	N	16	**95.2**	15.2	7.4 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1 UL	1.6 UL	0.75 UL	0.68 UL
LEAD	35.8	400		11	**219**	**37**	23.8
MERCURY	0.18	23	N[14]	0.04 L	**6.1 L**	0.17 L	0.05 B
MOLYBDENUM	NA	390	N	1.2	1.9	0.79	0.4
NICKEL	22.7	1500	N	17.4	**52.6**	14.6	8.4
SELENIUM	2	390	N	0.57 UL	1.04 UL	0.4 UL	0.33 U
SILVER	1	390	N	**2 L**	**24.7**	**3.5**	0.19 L
THALLIUM	21.3 [16]	NA		0.97 U	1.78 U	0.86	0.57 U
VANADIUM	57 [15]	390	N	26.2	**78.3**	24.2	15.8
ZINC	121	23000	N	64.5	**612**	76	32.4
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		48	32	67	72
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	6800	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-28	SD-29	SD-31	SD-40
SAMPLE ID				SD-28-02	SD-29-02	SD-31-02	SD-40-02
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		11 U	9 U	1 B	13 UJ
1,4-DICHLOROBENZENE	599	24000	C	11 U	9 U	15 U	13 UJ
2-BUTANONE	25710 [4]	28000000	N	13 J	43 U	74 U	66 UR
ACETONE	60030 [4]	61000000	N	45 B	54 B	140 B	240 J
CARBON DISULFIDE	0.851	820000	N	11 U	9 U	**7 J**	**5 J**
CHLOROBENZENE	8.42	290000	N	11 U	9 U	15 U	13 U
CHLOROMETHANE	17800 [4]	120000	N	22 U	17 U	30 U	27 U
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	11 U	9 U	15 U	13 U
ISOPROPYLBENZENE	86	2100000	N	11 U	9 U	15 U	13 UJ
METHYL TERT-BUTYL ETHER	NA	430000	C	22 U	17 U	3 J	27 U
NAPHTHALENE	176	36000	C	11 U	9 U	15 U	13 UJ
SEC-BUTYLBENZENE	880 [4]	NA		11 U	9 U	15 U	13 UJ
TERT-BUTYLBENZENE	1210 [4]	NA		11 U	9 U	15 U	13 U
TOLUENE	2880 [4]	5000000	N	3 J	9	15 U	13 U
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	740 U	570 U	1000 UJ	880 U
1,3-DICHLOROBENZENE	4430	NA		740 U	570 U	1000 UJ	880 U
1,4-DICHLOROBENZENE	599	24000	C	740 U	570 U	1000 UJ	74 B
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	740 U	570 U	1000 UJ	880 U
2-METHYLNAPHTHALENE	20.2	310000	N	740 U	570 U	1000 UJ	880 U
ACENAPHTHENE	6.7	3400000	N	740 U	570 U	1000 UJ	190 B
ACENAPHTHYLENE	5.9	3400000	N[7]	740 U	570 U	1000 UJ	880 U
ANTHRACENE	57.2	17000000	N	740 U	570 U	1000 UJ	**190 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	740 U	570 U	1000 U	**1408**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	740 U	570 U	1000 U	**964**
BENZO(A)ANTHRACENE	108	1500	C	740 U	570 U	1000 UJ	**660 J**
BENZO(A)PYRENE	150	150	C	740 U	570 U	1000 UJ	**740 J**
BENZO(B)FLUORANTHENE	NA	1500	C	740 U	570 U	1000 UJ	1000
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	740 U	570 U	1000 UJ	**690 J**
BENZO(K)FLUORANTHENE	240	15000	C	740 U	570 U	1000 UJ	880 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	740 U	570 U	**980 J**	**1700**
BUTYL BENZYL PHTHALATE	10900	2600000	C	740 U	570 U	1000 UJ	880 U
CARBAZOLE	NA	NA		740 U	570 U	1000 UJ	880 U
CHRYSENE	166	150000	C	740 U	570 U	1000 UJ	**1000**
DIBENZO(A,H)ANTHRACENE	33	150	C	740 U	570 U	1000 UJ	880 U
DIBENZOFURAN	415	78000	N	740 U	570 U	1000 UJ	880 U
FLUORANTHENE	423	2300000	N	740 U	140 J	1000 UJ	**890**
FLUORENE	77.4	2300000	N	740 U	570 U	1000 UJ	880 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	740 U	570 U	1000 UJ	**570 J**
NAPHTHALENE	176	36000	C	740 U	570 U	1000 UJ	880 U
PHENANTHRENE	204	1700000	N[8]	740 U	570 U	1000 UJ	**400 J**
PYRENE	195	1700000	N	740 U	570 U	1000 UJ	**2100**
TOTAL PAHS	1610	NA		0 U	140	0 U	**8240**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	38 U	29 U	52 U	45 U
AROCLOR-1254	59.8 [9]	1100	N[10]	38 U	29 U	52 U	45 U
AROCLOR-1260	59.8 [9]	2200	C	38 U	29 U	**75**	**960**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	**75**	**960**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.54 UL	0.85 L	1 L	0.94 U
ARSENIC	9.8	3.9	C	**5.4**	**5.9**	**8.1**	**4**
BARIUM	130 [15]	15000	N	32.7	26.8	45.7	73.5

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-28	SD-29	SD-31	SD-40
SAMPLE ID				SD-28-02	SD-29-02	SD-31-02	SD-40-02
SAMPLE DATE				20051021	20051021	20051021	20051021
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.9	2	1.9	2.2
CADMIUM	0.99	70	N	**1.1**	0.57	**2.9**	**56.6**
CHROMIUM	43.4	120000	N[12]	**56.2 K**	**47.9 K**	**102 K**	**945**
COBALT	50	23	N	14	9.8	17.7	20
COPPER	31.6	3100	N	19.8 J	21.5 J	**46 J**	**113**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.1 UL	0.87 UL	1.5 UL	1.3 U
LEAD	35.8	400		25.6	18.3	**58.5**	**316**
MERCURY	0.18	23	N[14]	**2.4 K**	**0.25 K**	**0.4 K**	**0.61**
MOLYBDENUM	NA	390	N	1.2	0.84	0.54	1.9
NICKEL	22.7	1500	N	**23.6**	**24.2**	**31**	**51.2**
SELENIUM	2	390	N	0.47 U	0.83 U	0.76 U	0.82 U
SILVER	1	390	N	0.21 L	0.17 L	0.85 L	**3.4**
THALLIUM	21.3 [16]	NA		0.8 U	0.71 U	1.31 U	1.41 U
VANADIUM	57 [15]	390	N	35.9	43.5	40.4	**66.3**
ZINC	121	23000	N	91.9	62.1	**186**	**559**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		2.8 U	NA	5.5	8.5
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		44	58	32	38
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	54000 K	50000
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-42	SD-43	SD-44	SD-45
SAMPLE ID					SD-42-02	SD-43-02	SD-44-02	SD-45-02
SAMPLE DATE					20051021	20081117	20081117	20081117
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					24	22	22	22
BOTTOM DEPTH					24	26	26	26
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		12 UJ	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	12 UJ	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	62 UR	NA	NA	NA
ACETONE	60030	[4]	61000000	N	120 J	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	**8 J**	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	12 UJ	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	25 UJ	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	12 UJ	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	12 UJ	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	25 UJ	NA	NA	NA
NAPHTHALENE	176		36000	C	12 UJ	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		12 UJ	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		12 UJ	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	12 UJ	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	440 U	630 U	600 U
2-METHYLNAPHTHALENE	20.2		310000	N	NA	440 U	630 U	600 U
ACENAPHTHENE	6.7		3400000	N	NA	440 U	630 U	600 U
ACENAPHTHYLENE	5.9		3400000	N[7]	NA	440 U	630 U	600 U
ANTHRACENE	57.2		17000000	N	NA	440 U	630 U	600 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	NA	440 U	630 U	600 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	NA	440 U	630 U	600 U
BENZO(A)ANTHRACENE	108		1500	C	NA	440 U	630 U	600 U
BENZO(A)PYRENE	150		150	C	NA	440 U	630 U	600 U
BENZO(B)FLUORANTHENE	NA		1500	C	NA	440 U	630 U	600 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	NA	440 U	630 U	600 U
BENZO(K)FLUORANTHENE	240		15000	C	NA	440 U	630 U	600 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	NA	440 U	630 U	600 U
DIBENZO(A,H)ANTHRACENE	33		150	C	NA	440 U	630 U	600 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	NA	440 U	630 U	600 U
FLUORENE	77.4		2300000	N	NA	440 U	630 U	600 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	NA	440 U	630 U	600 U
NAPHTHALENE	176		36000	C	NA	440 U	630 U	600 U
PHENANTHRENE	204		1700000	N[8]	NA	440 U	630 U	600 U
PYRENE	195		1700000	N	NA	440 U	630 U	600 U
TOTAL PAHS	1610		NA		NA	0 U	0 U	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	NA	28 U	31 U	30 U
AROCLOR-1254	59.8	[9]	1100	N[10]	NA	28 U	31 U	30 U
AROCLOR-1260	59.8	[9]	2200	C	NA	28 U	31 U	30 U
TOTAL AROCLOR	59.8		2200	C[11]	NA	0 U	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.7 U	0.17 U	0.18 U	0.18 U
ARSENIC	9.8		3.9	C	**5.6**	3.3	2.3	3.2
BARIUM	130	[15]	15000	N	37.3	84.8 J	28.4	34.3

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-42	SD-43	SD-44	SD-45
SAMPLE ID				SD-42-02	SD-43-02	SD-44-02	SD-45-02
SAMPLE DATE				20051021	20081117	20081117	20081117
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	22	22	22
BOTTOM DEPTH				24	26	26	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	2.4	1.6 J	1.9	1.3
CADMIUM	0.99	70	N	**1.6**	0.77	0.11	0.2
CHROMIUM	43.4	120000	N[12]	**46.8**	25 J	19.2	20.1
COBALT	50	23	N	22.3	17.6	14.2	10.5
COPPER	31.6	3100	N	**34.5**	19.9 J	12.5	13.5
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	1.2 U	NA	NA	NA
LEAD	35.8	400		**68**	17 J	7.3	8.5
MERCURY	0.18	23	N[14]	**0.21**	0.054 B	0.037	0.016
MOLYBDENUM	NA	390	N	1.7	0.5	1.2	1.1
NICKEL	22.7	1500	N	**31.5**	21.5	16	14.3
SELENIUM	2	390	N	0.61 U	0.96	0.79	0.58 U
SILVER	1	390	N	0.46 B	0.1 U	0.11 U	0.15
THALLIUM	21.3 [16]	NA		1.05 U	0.29 U	0.31 U	0.3 U
VANADIUM	57 [15]	390	N	34.9	36.5 J	30.1	34.2
ZINC	121	23000	N	**136**	56	41.4	46.6
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		40	60	53	56
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	16000	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-46	SD-47	SD-48	SD-49
SAMPLE ID				SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE				20081115	20081115	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	26	26
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	780 U	570 U	410 U	530 U
2-METHYLNAPHTHALENE	20.2	310000	N	780 U	570 U	410 U	530 U
ACENAPHTHENE	6.7	3400000	N	780 U	570 U	410 U	530 U
ACENAPHTHYLENE	5.9	3400000	N[7]	780 U	570 U	410 U	530 U
ANTHRACENE	57.2	17000000	N	780 U	570 U	410 U	530 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	780 U	570 U	410 U	530 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	780 U	570 U	410 U	530 U
BENZO(A)ANTHRACENE	108	1500	C	780 U	570 U	410 U	530 U
BENZO(A)PYRENE	150	150	C	780 U	570 U	410 U	530 U
BENZO(B)FLUORANTHENE	NA	1500	C	780 U	570 U	410 U	530 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	780 U	570 U	410 U	530 U
BENZO(K)FLUORANTHENE	240	15000	C	780 U	570 U	410 U	530 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	780 U	570 U	410 U	530 U
DIBENZO(A,H)ANTHRACENE	33	150	C	780 U	570 U	410 U	530 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	780 U	570 U	410 U	530 U
FLUORENE	77.4	2300000	N	780 U	570 U	410 U	530 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	780 U	570 U	410 U	530 U
NAPHTHALENE	176	36000	C	780 U	570 U	410 U	530 U
PHENANTHRENE	204	1700000	N[8]	780 U	570 U	410 U	530 U
PYRENE	195	1700000	N	780 U	570 U	410 U	530 U
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	39 U	28 U	20 U	33 U
AROCLOR-1254	59.8 [9]	1100	N[10]	39 U	28 U	20 U	33 U
AROCLOR-1260	59.8 [9]	2200	C	39 U	28 U	20 U	33 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.25 L	0.17 UL	0.12 UL	0.19 U
ARSENIC	9.8	3.9	C	**7**	**4.5**	0.77 B	**7**
BARIUM	130 [15]	15000	N	41.9	16.5	10.7	22.6 J

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-46	SD-47	SD-48	SD-49
SAMPLE ID				SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE				20081115	20081115	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	26	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	2.6	2	0.69	1.3 J
CADMIUM	0.99	70	N	**17.5**	0.1	0.016	0.011 U
CHROMIUM	43.4	120000	N[12]	**336**	16.3	11.8	20.6 J
COBALT	50	23	N	21.7	12.6	1.1	13.8
COPPER	31.6	3100	N	**42.4**	9.5	7.8	12.1 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**85.2**	5.1	4.1	7.3 J
MERCURY	0.18	23	N[14]	**0.19**	0.023 B	0.0095 B	0.034 B
MOLYBDENUM	NA	390	N	1.4	1.6	0.2 B	1.4
NICKEL	22.7	1500	N	**30.8**	**50.5**	4.1	15.7
SELENIUM	2	390	N	1.9	0.86	0.39 U	1.8
SILVER	1	390	N	**1.1**	0.11 U	0.075 U	0.14 B
THALLIUM	21.3 [16]	NA		0.39 U	0.3 U	0.21 U	0.32 U
VANADIUM	57 [15]	390	N	42.6	22.2	20.4	26.8 J
ZINC	121	23000	N	**232**	37	7.6	51.9
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		43	59	82	50
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	9600	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50	SD-51	SD-51	SD-51
SAMPLE ID				SD-50-02	SD-51-02	SD-51-02-AVG	SD-51-02-D
SAMPLE DATE				20081114	20081115	20081115	20081115
SAMPLE CODE				NORMAL	ORIG	AVG	DUP
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	20	20	20
BOTTOM DEPTH				26	28	28	28
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1100 U	1100 U	1100 U	1100 U
2-METHYLNAPHTHALENE	20.2	310000	N	1100 U	1100 U	1100 U	1100 U
ACENAPHTHENE	6.7	3400000	N	1100 U	1100 U	1100 U	1100 U
ACENAPHTHYLENE	5.9	3400000	N[7]	1100 U	1100 U	1100 U	1100 U
ANTHRACENE	57.2	17000000	N	1100 U	1100 U	1100 U	1100 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**1225**	**1196**	**1196**	1100 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	69.5	40.5	40.5	1100 U
BENZO(A)ANTHRACENE	108	1500	C	1100 U	1100 U	1100 U	1100 U
BENZO(A)PYRENE	150	150	C	1100 U	1100 U	1100 U	1100 U
BENZO(B)FLUORANTHENE	NA	1500	C	460 J	270 J	270 J	1100 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1100 U	1100 U	1100 U	1100 U
BENZO(K)FLUORANTHENE	240	15000	C	**500 J**	220 J	220 J	1100 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**500 J**	**310 J**	**310 J**	1100 U
DIBENZO(A,H)ANTHRACENE	33	150	C	1100 U	1100 U	1100 U	1100 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**690 J**	420 J	420 J	1100 U
FLUORENE	77.4	2300000	N	1100 U	1100 U	1100 U	1100 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**180 J**	**110 J**	**110 J**	1100 U
NAPHTHALENE	176	36000	C	1100 U	1100 U	1100 U	1100 U
PHENANTHRENE	204	1700000	N[8]	**330 J**	1100 U	1100 U	1100 U
PYRENE	195	1700000	N	**1000 J**	**590 J**	**590 J**	1100 U
TOTAL PAHS	1610	NA		**3660**	**1920**	**1920**	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	2700 UJ	53 U	53 U	53 U
AROCLOR-1254	59.8 [9]	1100	N[10]	2700 UJ	53 U	53 U	53 U
AROCLOR-1260	59.8 [9]	2200	C	**610**	**270 J**	**148.25 J**	53 UJ
TOTAL AROCLOR	59.8	2200	C[11]	**610**	**270**	**148.25**	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.34 UJ	1 L	0.5825 L	0.33 UL
ARSENIC	9.8	3.9	C	**12.3**	**11.5**	**11.4**	**11.3**
BARIUM	130 [15]	15000	N	69.4	61.7	62.15	62.6

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50 SD-50-02 20081114 NORMAL SD NORMAL SB 22 26	SD-51 SD-51-02 20081115 ORIG SD NORMAL SB 20 28	SD-51 SD-51-02-AVG 20081115 AVG SD NORMAL SB 20 28	SD-51 SD-51-02-D 20081115 DUP SD NORMAL SB 20 28
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	2.4	2.2	2.2	2.2
CADMIUM	0.99	70	N	**38.3**	**28.6**	**30.7**	**32.8**
CHROMIUM	43.4	120000	N[12]	**527**	**515**	**527.5**	**540**
COBALT	50	23	N	**30.9**	20.9	21.05	21.2
COPPER	31.6	3100	N	**115**	**116**	**115.5**	**115**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**196**	**214**	**216**	**218**
MERCURY	0.18	23	N[14]	**1.1**	**0.94**	**0.92**	**0.9**
MOLYBDENUM	NA	390	N	1.5 J	1.7	1.85	2
NICKEL	22.7	1500	N	**66.2**	**48.1**	**48.4**	**48.7**
SELENIUM	2	390	N	**2.2**	**2.5**	**2.6**	**2.7**
SILVER	1	390	N	**18**	**6.1**	**6.95**	**7.8**
THALLIUM	21.3 [16]	NA		0.59 U	0.54 U	0.55 U	0.56 U
VANADIUM	57 [15]	390	N	**96**	**76.9**	**78.85**	**80.8**
ZINC	121	23000	N	**534**	**435**	**442.5**	**450**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	32	31.5	31
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-53	SD-54	SD-55	SD-56
SAMPLE ID					SD-53-02	SD-54-02	SD-55-02	SD-56-02
SAMPLE DATE					20081114	20081114	20081113	20081113
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					22	22	22	22
BOTTOM DEPTH					26	26	26	26
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	770 U	**140 J**	400 U	750 U
2-METHYLNAPHTHALENE	20.2		310000	N	770 U	**310 J**	400 U	750 U
ACENAPHTHENE	6.7		3400000	N	770 U	1100 U	400 U	750 U
ACENAPHTHYLENE	5.9		3400000	N[7]	770 U	1100 U	400 U	750 U
ANTHRACENE	57.2		17000000	N	770 U	**290 J**	400 U	**89 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	770 U	**1312**	400 U	**871**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	770 U	**157**	400 U	83.6
BENZO(A)ANTHRACENE	108		1500	C	770 U	1100 U	400 U	750 U
BENZO(A)PYRENE	150		150	C	770 U	1100 U	400 U	750 U
BENZO(B)FLUORANTHENE	NA		1500	C	770 U	1000 J	400 U	540 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	770 U	**560 J**	400 U	**280 J**
BENZO(K)FLUORANTHENE	240		15000	C	770 U	**810 J**	400 U	**410 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	770 U	**1000 J**	400 U	**480 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	770 U	1100 U	400 U	750 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	770 U	**1700**	400 U	**750 J**
FLUORENE	77.4		2300000	N	770 U	**180 J**	400 U	750 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	770 U	**480 J**	400 U	**250 J**
NAPHTHALENE	176		36000	C	770 U	**320 J**	400 U	750 U
PHENANTHRENE	204		1700000	N[8]	770 U	**1100 J**	400 U	**330 J**
PYRENE	195		1700000	N	770 U	**2600**	400 U	**990**
TOTAL PAHS	1610		NA		0 U	**10350**	0 U	**4119**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	38 U	55 U	20 U	38 U
AROCLOR-1254	59.8	[9]	1100	N[10]	38 U	55 U	20 U	38 U
AROCLOR-1260	59.8	[9]	2200	C	38 U	55 U	20 U	**350**
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	0 U	**350**
METALS (MG/KG)								
ANTIMONY	2		31	N	0.23 UL	0.36 L	0.13 UL	0.48 L
ARSENIC	9.8		3.9	C	**8.1**	**10.9**	1.5	**7.2**
BARIUM	130	[15]	15000	N	28.8	87.7	11.6	32.9

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-53	SD-54	SD-55	SD-56
SAMPLE ID			SD-53-02	SD-54-02	SD-55-02	SD-56-02
SAMPLE DATE			20081114	20081114	20081113	20081113
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			22	22	22	22
BOTTOM DEPTH			26	26	26	26
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	1.8	2.4	1.9	1.5
CADMIUM	0.99	70 N	0.1	**53.5**	0.0074 U	**19**
CHROMIUM	43.4	120000 N[12]	31.5	**1050**	19.1	**264**
COBALT	50	23 N	11.8	19.9	4.6	13.9
COPPER	31.6	3100 N	18	**89.9**	9.3	**66.6**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	11	**162**	5.6	**108**
MERCURY	0.18	23 N[14]	0.048	**1.5**	0.0079	**0.65**
MOLYBDENUM	NA	390 N	1.9	1.2	0.26	1.1
NICKEL	22.7	1500 N	19.9	**50.8**	19.4	**33.8**
SELENIUM	2	390 N	1	**2.8**	0.49	1.5
SILVER	1	390 N	0.14 U	**8.4**	0.079 U	**11.7**
THALLIUM	21.3 [16]	NA	0.39 U	0.59 U	0.22 U	0.38 U
VANADIUM	57 [15]	390 N	45.1	**62.6**	31	**62.7**
ZINC	121	23000 N	61.4	**543**	20.4	**267**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	44	30	83	44
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-57	SD-58	SD-59	SD-59
SAMPLE ID				SD-57-02	SD-58-02	SD-59-02	SD-59-02-AVG
SAMPLE DATE				20081114	20081114	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	ORIG	AVG
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	20	20
BOTTOM DEPTH				26	26	28	28
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	850 U	**950**	600 U	600 U
2-METHYLNAPHTHALENE	20.2	310000	N	850 U	**1100 J**	600 U	600 U
ACENAPHTHENE	6.7	3400000	N	850 U	**11000 J**	600 U	600 U
ACENAPHTHYLENE	5.9	3400000	N[7]	850 U	610 U	600 U	600 U
ANTHRACENE	57.2	17000000	N	850 U	**19000**	**64 J**	**64 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	850 U	**38692**	**689**	**685**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	850 U	**38387**	29.5	24.9
BENZO(A)ANTHRACENE	108	1500	C	850 U	**38000**	600 U	600 U
BENZO(A)PYRENE	150	150	C	850 U	**30000**	600 U	600 U
BENZO(B)FLUORANTHENE	NA	1500	C	850 U	**31000**	260 J	225 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	850 U	**11000 J**	600 U	600 U
BENZO(K)FLUORANTHENE	240	15000	C	850 U	**25000**	**310 J**	210 J
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	850 U	**37000**	**350 J**	**265 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	850 U	610 U	600 U	600 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	850 U	**78000**	**450 J**	345 J
FLUORENE	77.4	2300000	N	850 U	**10000 J**	600 U	600 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	850 U	**12000 J**	600 U	600 U
NAPHTHALENE	176	36000	C	850 U	**2200 J**	600 U	600 U
PHENANTHRENE	204	1700000	N[8]	850 U	**76000**	**260 J**	195 J
PYRENE	195	1700000	N	850 U	**76000**	**710 J**	**545 J**
TOTAL PAHS	1610	NA		0 U	**457300**	**2404**	**1849**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	42 U	6100 UJ	37 U	37 U
AROCLOR-1254	59.8 [9]	1100	N[10]	42 U	6100 UJ	37 U	37 U
AROCLOR-1260	59.8 [9]	2200	C	42 U	**790**	37 U	37 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	**790**	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.25 UJ	**132 L**	0.22 U	0.215 U
ARSENIC	9.8	3.9	C	**7**	**5.1**	**7**	**7.55**
BARIUM	130 [15]	15000	N	29	**238**	56.9 J	59.3 J

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-57 SD-57-02 20081114 NORMAL SD NORMAL SB 22 26	SD-58 SD-58-02 20081114 NORMAL SD NORMAL SB 22 26	SD-59 SD-59-02 20081115 ORIG SD NORMAL SB 20 28	SD-59 SD-59-02-AVG 20081115 AVG SD NORMAL SB 20 28
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	2.1	1.1	1.7 J	1.85 J
CADMIUM	0.99	70 N	0.015 U	**16.9**	**24.2**	**26.5**
CHROMIUM	43.4	120000 N[12]	32.2	**1090**	**592 J**	**641 J**
COBALT	50	23 N	13.2	12.2	12.7	13.45
COPPER	31.6	3100 N	17.3	**63.2**	**49.5 J**	**53.15 J**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	10.8	**299**	**111 J**	**126 J**
MERCURY	0.18	23 N[14]	0.016	**0.5**	**0.91**	**0.94**
MOLYBDENUM	NA	390 N	0.098 UL	0.07 UL	1.1	1.15
NICKEL	22.7	1500 N	22.5	**27.6**	**27.6**	**29.15**
SELENIUM	2	390 N	0.81 U	0.98	1.7	1.8
SILVER	1	390 N	0.15 U	**3.5**	**10.7**	**11.25**
THALLIUM	21.3 [16]	NA	0.42 U	2.3	0.37 U	0.37 U
VANADIUM	57 [15]	390 N	35.9	29.3	43.1 J	45.55 J
ZINC	121	23000 N	64.7	**2980**	**447**	**476.5**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	45	44.5
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	17000
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-59	SD-60	SD-61	SD-62
SAMPLE ID				SD-59-02-D	SD-60-02	SD-61-02	SD-62-02
SAMPLE DATE				20081115	20081112	20081113	20081112
SAMPLE CODE				DUP	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				20	22	22	22
BOTTOM DEPTH				28	26	26	26
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	600 U	520 U	**88 J**	650 U
2-METHYLNAPHTHALENE	20.2	310000	N	600 U	520 U	940 U	650 U
ACENAPHTHENE	6.7	3400000	N	600 U	520 U	**410 J**	650 U
ACENAPHTHYLENE	5.9	3400000	N[7]	600 U	520 U	940 U	650 U
ANTHRACENE	57.2	17000000	N	600 U	**75 J**	**350 J**	**140 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**680**	**571**	**2600**	**998**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	20.3	24.8	**2600**	**641**
BENZO(A)ANTHRACENE	108	1500	C	600 U	520 U	**1600**	650 U
BENZO(A)PYRENE	150	150	C	600 U	520 U	**1700**	**550 J**
BENZO(B)FLUORANTHENE	NA	1500	C	190 J	160 J	**1700**	570 J
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	600 U	520 U	**1200**	**320 J**
BENZO(K)FLUORANTHENE	240	15000	C	110 J	160 J	**1800**	**520 J**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**180 J**	**200 J**	**1800**	**680**
DIBENZO(A,H)ANTHRACENE	33	150	C	600 U	520 U	**440 J**	650 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	240 J	340 J	**2900**	**990**
FLUORENE	77.4	2300000	N	600 U	520 U	**180 J**	**90 J**
INDENO(1,2,3-CD)PYRENE	17	1500	C	600 U	**70 J**	**1100**	**280 J**
NAPHTHALENE	176	36000	C	600 U	520 U	**200 J**	650 U
PHENANTHRENE	204	1700000	N[8]	130 J	**350 J**	**1300**	**460 J**
PYRENE	195	1700000	N	**380 J**	**540 J**	**4100**	**1700 J**
TOTAL PAHS	1610	NA		1230	**1895**	**20780**	**6300**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	37 U	32 U	47 U	41 U
AROCLOR-1254	59.8 [9]	1100	N[10]	37 U	32 U	47 U	41 U
AROCLOR-1260	59.8 [9]	2200	C	37 U	32 U	**71**	**63 J**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	**71**	**63**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.21 U	**2.7 J**	0.93 L	**2.1 J**
ARSENIC	9.8	3.9	C	**8.1**	**6.7**	**10.2**	**7.8**
BARIUM	130 [15]	15000	N	61.7 J	43 J	60.8	52.1 J

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-59	SD-60	SD-61	SD-62
SAMPLE ID				SD-59-02-D	SD-60-02	SD-61-02	SD-62-02
SAMPLE DATE				20081115	20081112	20081113	20081112
SAMPLE CODE				DUP	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				20	22	22	22
BOTTOM DEPTH				28	26	26	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	2 J	1.5 J	2.2	2 J
CADMIUM	0.99	70	N	**28.8**	**9.7**	**37.3**	**15.4 J**
CHROMIUM	43.4	120000	N[12]	**690 J**	**236 J**	**739**	**331 J**
COBALT	50	23	N	14.2	9.7 J	18	13.8 J
COPPER	31.6	3100	N	**56.8 J**	**31.8 J**	**93.3**	**43.1 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**141 J**	**89.3**	**179**	**67.9 J**
MERCURY	0.18	23	N[14]	**0.97**	**0.62**	**2.6**	**0.48**
MOLYBDENUM	NA	390	N	1.2	1.2	1.6	1.6 J
NICKEL	22.7	1500	N	**30.7**	22 J	**47.5**	**37.4 J**
SELENIUM	2	390	N	1.9	1.2	**2.3**	**2.1 J**
SILVER	1	390	N	**11.8**	**6.9**	**21.8**	**11.2 J**
THALLIUM	21.3 [16]	NA		0.37 U	0.33 U	0.48 U	0.4 U
VANADIUM	57 [15]	390	N	48 J	39.2 J	**81.3**	50.9 J
ZINC	121	23000	N	**506**	**197 J**	**488**	**245 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		44	51	35	41
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		17000	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-63	SD-64	SD-65	SD-66
SAMPLE ID					SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE					20081112	20081112	20081111	20081112
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					22	22	22	22
BOTTOM DEPTH					26	26	26	26
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	470 U	730 U	780 UJ	900 UJ
2-METHYLNAPHTHALENE	20.2		310000	N	470 U	730 U	780 UJ	900 UJ
ACENAPHTHENE	6.7		3400000	N	470 U	730 U	780 UJ	900 UJ
ACENAPHTHYLENE	5.9		3400000	N[7]	470 U	730 U	780 UJ	900 UJ
ANTHRACENE	57.2		17000000	N	48 J	730 U	780 UJ	900 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	470 U	730 U	780 U	**1019**
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	470 U	730 U	780 U	28.8
BENZO(A)ANTHRACENE	108		1500	C	470 U	730 U	780 UJ	900 UJ
BENZO(A)PYRENE	150		150	C	470 U	730 U	780 UJ	900 UJ
BENZO(B)FLUORANTHENE	NA		1500	C	470 U	730 U	780 UJ	260 J
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	470 U	730 U	780 UJ	900 UJ
BENZO(K)FLUORANTHENE	240		15000	C	470 U	730 U	780 UJ	240 J
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	470 U	730 U	780 UJ	**370 J**
DIBENZO(A,H)ANTHRACENE	33		150	C	470 U	730 U	780 UJ	900 UJ
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	59 J	730 U	780 UJ	**490 J**
FLUORENE	77.4		2300000	N	470 U	730 U	780 UJ	900 UJ
INDENO(1,2,3-CD)PYRENE	17		1500	C	470 U	730 U	780 UJ	900 UJ
NAPHTHALENE	176		36000	C	470 U	730 U	780 UJ	900 UJ
PHENANTHRENE	204		1700000	N[8]	470 U	730 U	780 UJ	**310 J**
PYRENE	195		1700000	N	120 J	730 U	780 UJ	**890 J**
TOTAL PAHS	1610		NA		227	0 U	0 U	**2560**
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	29 UJ	46 U	39 U	56 UJ
AROCLOR-1254	59.8	[9]	1100	N[10]	29 UJ	46 U	39 U	56 UJ
AROCLOR-1260	59.8	[9]	2200	C	29 UJ	46 U	39 U	56 UJ
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.52 J	0.28 UL	0.24 UJ	**3.4 J**
ARSENIC	9.8		3.9	C	**5.3**	**7.2**	**7**	**10.4 J**
BARIUM	130	[15]	15000	N	33.1 J	42.1 J	43.8	120 J

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-63	SD-64	SD-65	SD-66
SAMPLE ID				SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE				20081112	20081112	20081111	20081112
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	26	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.3 J	2.2 J	2	1.8 J
CADMIUM	0.99	70	N	**2.6 J**	**1.4 J**	**5.2**	**33.8 J**
CHROMIUM	43.4	120000	N[12]	**80.6 J**	**73.2 J**	**139**	**684 J**
COBALT	50	23	N	8.1 J	16.3 J	14.4	13.6 J
COPPER	31.6	3100	N	20.9 J	29.5 J	30.5 J	**65.2 J**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		29.3 J	27.8 J	**39.2**	**126 J**
MERCURY	0.18	23	N[14]	0.12	0.1	**0.35**	**1.9 J**
MOLYBDENUM	NA	390	N	1.1 J	1.8 J	1.5	1.1 J
NICKEL	22.7	1500	N	19 J	**28.4 J**	**25.7 J**	**35 J**
SELENIUM	2	390	N	0.78 J	1.8 J	1.1 J	**2.2 J**
SILVER	1	390	N	**2.6 J**	**1.1 J**	**6.5**	**12.6 J**
THALLIUM	21.3 [16]	NA		0.3 U	0.47 U	0.4 U	0.6 UJ
VANADIUM	57 [15]	390	N	41 J	42.6 J	38.9	53.3 J
ZINC	121	23000	N	78.1 J	108 J	**138 J**	**502 J**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		57	36	NA	30
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	9200	21000 J
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-67	SD-68	SD-69	SD-70
SAMPLE ID				SD-67-02	SD-68-02	SD-69-02	SD-70-02
SAMPLE DATE				20081111	20081112	20081111	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	26	26
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	1000 UJ	660 U	410 U	650 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	1000 UJ	660 U	410 U	650 UJ
ACENAPHTHENE	6.7	3400000	N	1000 UJ	660 U	410 U	650 UJ
ACENAPHTHYLENE	5.9	3400000	N[7]	1000 UJ	660 U	410 U	650 UJ
ANTHRACENE	57.2	17000000	N	**150 J**	660 U	410 U	650 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**2091**	**743**	410 U	650 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**1591**	17.2	410 U	650 U
BENZO(A)ANTHRACENE	108	1500	C	**1100 J**	660 U	410 U	650 UJ
BENZO(A)PYRENE	150	150	C	**1200 J**	660 U	410 U	650 UJ
BENZO(B)FLUORANTHENE	NA	1500	C	**2000 J**	160 J	410 U	650 UJ
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	1000 UJ	660 U	410 U	650 UJ
BENZO(K)FLUORANTHENE	240	15000	C	**2500 J**	100 J	410 U	650 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**1300 J**	**190 J**	410 U	650 UJ
DIBENZO(A,H)ANTHRACENE	33	150	C	1000 UJ	660 U	410 U	650 UJ
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**1700 J**	240 J	410 U	650 UJ
FLUORENE	77.4	2300000	N	1000 UJ	660 U	410 U	650 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	**550 J**	660 U	410 U	650 UJ
NAPHTHALENE	176	36000	C	1000 UJ	660 U	410 U	650 UJ
PHENANTHRENE	204	1700000	N[8]	**830 J**	130 J	410 U	650 UJ
PYRENE	195	1700000	N	**2700 J**	**490 J**	410 U	650 UJ
TOTAL PAHS	1610	NA		**14030**	1310	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	52 U	41 U	21 U	32 U
AROCLOR-1254	59.8 [9]	1100	N[10]	52 U	41 U	21 U	32 U
AROCLOR-1260	59.8 [9]	2200	C	**230**	41 U	21 U	32 U
TOTAL AROCLOR	59.8	2200	C[11]	**230**	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.97 B	**5.4 J**	0.12 UL	0.19 UJ
ARSENIC	9.8	3.9	C	**10.5**	**8.7**	**6.5**	**5.3**
BARIUM	130 [15]	15000	N	85.4	112 J	24	20.6

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-67	SD-68	SD-69	SD-70
SAMPLE ID				SD-67-02	SD-68-02	SD-69-02	SD-70-02
SAMPLE DATE				20081111	20081112	20081111	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	26	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	2.1	2 J	2.9	1.8
CADMIUM	0.99	70	N	**36**	**23.9**	0.02	**2.1**
CHROMIUM	43.4	120000	N[12]	**714**	**497 J**	15.4	**70.2**
COBALT	50	23	N	17.3	14 J	**37.9**	12.1
COPPER	31.6	3100	N	**94.8 J**	**55.9 J**	15.1	23.3 J
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**208**	**104**	17.2	21.7
MERCURY	0.18	23	N[14]	**4.7**	**1.1**	0.015 B	0.055
MOLYBDENUM	NA	390	N	1.9	2	0.059	1.3
NICKEL	22.7	1500	N	**54.4 J**	**34 J**	**45.2**	20.1 J
SELENIUM	2	390	N	1.7 J	1.7	0.39 UL	0.91 J
SILVER	1	390	N	**40.9**	**21**	0.074 U	**3**
THALLIUM	21.3 [16]	NA		0.55 U	0.42 U	0.2 U	0.32 U
VANADIUM	57 [15]	390	N	**90.9**	54.5 J	23.4 K	32.6
ZINC	121	23000	N	**490 J**	**390 J**	90.2	80.9 J
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	41	80	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	13000	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-71	SD-72	SD-73	SD-74
SAMPLE ID					SD-71-02	SD-72-02	SD-73-02	SD-74-02
SAMPLE DATE					20081111	20081112	20081111	20081111
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					22	22	22	22
BOTTOM DEPTH					26	26	26	26
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	740 UJ	340 U	650 U	420 U
2-METHYLNAPHTHALENE	20.2		310000	N	740 UJ	340 U	650 U	420 U
ACENAPHTHENE	6.7		3400000	N	740 UJ	340 U	650 U	420 U
ACENAPHTHYLENE	5.9		3400000	N[7]	740 UJ	340 U	650 U	420 U
ANTHRACENE	57.2		17000000	N	740 UJ	340 U	650 U	420 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	740 U	340 U	650 U	420 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	740 U	340 U	650 U	420 U
BENZO(A)ANTHRACENE	108		1500	C	740 UJ	340 U	650 U	420 U
BENZO(A)PYRENE	150		150	C	740 UJ	340 U	650 U	420 U
BENZO(B)FLUORANTHENE	NA		1500	C	740 UJ	340 U	650 U	420 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	740 UJ	340 U	650 U	420 U
BENZO(K)FLUORANTHENE	240		15000	C	740 UJ	340 U	650 U	420 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	740 UJ	340 U	650 U	420 U
DIBENZO(A,H)ANTHRACENE	33		150	C	740 UJ	340 U	650 U	420 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	**720 J**	340 U	650 U	420 U
FLUORENE	77.4		2300000	N	740 UJ	340 U	650 U	420 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	740 UJ	340 U	650 U	420 U
NAPHTHALENE	176		36000	C	740 UJ	340 U	650 U	420 U
PHENANTHRENE	204		1700000	N[8]	**250 J**	340 U	650 U	420 U
PYRENE	195		1700000	N	**1300 J**	340 UJ	650 U	420 U
TOTAL PAHS	1610		NA		**2270**	0 U	0 U	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	37 U	21 U	33 U	21 U
AROCLOR-1254	59.8	[9]	1100	N[10]	37 U	21 U	33 U	21 U
AROCLOR-1260	59.8	[9]	2200	C	28 J	21 U	33 U	21 U
TOTAL AROCLOR	59.8		2200	C[11]	28	0 U	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.73 B	0.24 J	0.2 UL	0.13 UL
ARSENIC	9.8		3.9	C	**8**	**6.2**	**4.5**	**4.6**
BARIUM	130	[15]	15000	N	99.1	26 J	17.2	22.4

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-71	SD-72	SD-73	SD-74
SAMPLE ID			SD-71-02	SD-72-02	SD-73-02	SD-74-02
SAMPLE DATE			20081111	20081112	20081111	20081111
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			22	22	22	22
BOTTOM DEPTH			26	26	26	26
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	2	1.8 J	1.7	1.9
CADMIUM	0.99	70 N	**9.7**	0.0075 UL	0.03	0.65
CHROMIUM	43.4	120000 N[12]	**235**	28.5 J	22.3	33
COBALT	50	23 N	12.4	5.2 J	9.1	14.6
COPPER	31.6	3100 N	**37.4 J**	**31.7 J**	14.4	25.8
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**59.9**	8.6 J	6.6	27.9
MERCURY	0.18	23 N[14]	**0.44**	0.022 B	0.022 B	**0.23**
MOLYBDENUM	NA	390 N	2	0.81 J	1.1	1.2
NICKEL	22.7	1500 N	**25.7 J**	17.7 J	15.7	**23.4**
SELENIUM	2	390 N	1.1 J	0.5 J	0.65 UL	0.43 UL
SILVER	1	390 N	**16.4**	0.079 UL	0.12 U	**2.5**
THALLIUM	21.3 [16]	NA	0.36 U	0.22 U	0.34 U	0.22 U
VANADIUM	57 [15]	390 N	49.4	49.5 J	29.4 K	35.9 K
ZINC	121	23000 N	**216 J**	26.1 J	40.7	67.6
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	79	51	79
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	35000	3100
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-75	SD-75	SD-75	SD-76
SAMPLE ID				SD-75-02	SD-75-02-AVG	SD-75-02-D	SD-76-02
SAMPLE DATE				20081112	20081112	20081112	20081111
SAMPLE CODE				ORIG	AVG	DUP	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				20	20	20	20
BOTTOM DEPTH				28	28	28	28
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	430 U	435 U	440 U	800 U
2-METHYLNAPHTHALENE	20.2	310000	N	430 U	435 U	440 U	800 U
ACENAPHTHENE	6.7	3400000	N	**250 J**	**270 J**	**290 J**	**380 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	430 U	435 U	440 U	**82 J**
ANTHRACENE	57.2	17000000	N	**650**	**640**	**630**	**570 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**2370**	**1851**	**1331**	**5159**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**2155**	**1633**	**1111**	**5159**
BENZO(A)ANTHRACENE	108	1500	C	**2000 J**	**1550 J**	**1100 J**	**3000**
BENZO(A)PYRENE	150	150	C	**1700 J**	**1290 J**	**880 J**	**3100**
BENZO(B)FLUORANTHENE	NA	1500	C	**1600 J**	1190 J	780 J	**6300**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**750**	**525 J**	**300 J**	**2300**
BENZO(K)FLUORANTHENE	240	15000	C	**1700 J**	**1290 J**	**880 J**	**1500**
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**2200 J**	**1700 J**	**1200 J**	**4400**
DIBENZO(A,H)ANTHRACENE	33	150	C	430 U	435 U	440 U	**900**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**3400**	**2750**	**2100**	**6200**
FLUORENE	77.4	2300000	N	430 U	**340 J**	**340 J**	**250 J**
INDENO(1,2,3-CD)PYRENE	17	1500	C	**760**	**545 J**	**330 J**	**2100**
NAPHTHALENE	176	36000	C	430 U	99 J	99 J	800 U
PHENANTHRENE	204	1700000	N[8]	**2800**	**2500**	**2200**	**2400**
PYRENE	195	1700000	N	**4800 J**	**3750 J**	**2700 J**	**6900**
TOTAL PAHS	1610	NA		**22610**	**18439**	**13829**	**40382**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	27 U	27 U	27 U	40 U
AROCLOR-1254	59.8 [9]	1100	N[10]	27 U	27 U	27 U	40 U
AROCLOR-1260	59.8 [9]	2200	C	27 U	27 U	27 U	**180**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	**180**
METALS (MG/KG)							
ANTIMONY	2	31	N	**2.7 J**	**2.95 J**	**3.2 J**	1.3 L
ARSENIC	9.8	3.9	C	**5.2**	**5.95**	**6.7**	**9.4**
BARIUM	130 [15]	15000	N	87.2 J	94.6 J	102 J	77.9

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-75 SD-75-02 20081112 ORIG SD NORMAL SB 20 28	SD-75 SD-75-02-AVG 20081112 AVG SD NORMAL SB 20 28	SD-75 SD-75-02-D 20081112 DUP SD NORMAL SB 20 28	SD-76 SD-76-02 20081111 NORMAL SD NORMAL SB 20 28
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	0.89 J	0.945 J	1 J	1.5
CADMIUM	0.99	70 N	**11**	**11.45**	**11.9**	**30.9**
CHROMIUM	43.4	120000 N[12]	**277 J**	**329.5 J**	**382 J**	**433**
COBALT	50	23 N	6.9 J	7.4 J	7.9 J	13.8
COPPER	31.6	3100 N	**36.2 J**	**35.6 J**	**35 J**	**109**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	**75.5**	**88.25**	**101**	**276**
MERCURY	0.18	23 N[14]	**1.4**	**1.35**	**1.3**	**2.7**
MOLYBDENUM	NA	390 N	4	4.35	4.7	2.3
NICKEL	22.7	1500 N	17.4 J	18.75 J	20.1 J	**58.5**
SELENIUM	2	390 N	0.82	1.01	1.2	1.4 L
SILVER	1	390 N	**35.6**	**36.8**	**38**	**55.8**
THALLIUM	21.3 [16]	NA	0.27 U	0.275 U	0.28 U	0.41 U
VANADIUM	57 [15]	390 N	29.4 J	30.25 J	31.1 J	**110 K**
ZINC	121	23000 N	**267 J**	**364.5 J**	**462 J**	**537**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	63	62	61	41
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-77	SD-80	SD-81	SD-82
SAMPLE ID				SD-77-02	SD-80-02	SD-81-02	SD-82-02
SAMPLE DATE				20081110	20081114	20081114	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	24	26
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	480 U	980 U	850 U	740 U
2-METHYLNAPHTHALENE	20.2	310000	N	480 U	980 U	850 U	740 U
ACENAPHTHENE	6.7	3400000	N	480 U	980 U	850 U	740 U
ACENAPHTHYLENE	5.9	3400000	N[7]	480 U	980 U	850 U	740 U
ANTHRACENE	57.2	17000000	N	480 U	980 U	850 U	740 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	480 U	980 U	850 U	740 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	480 U	980 U	850 U	740 U
BENZO(A)ANTHRACENE	108	1500	C	480 U	980 U	850 U	740 U
BENZO(A)PYRENE	150	150	C	480 U	980 U	850 U	740 U
BENZO(B)FLUORANTHENE	NA	1500	C	480 U	980 U	850 U	740 U
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	480 U	980 U	850 U	740 U
BENZO(K)FLUORANTHENE	240	15000	C	480 U	980 U	850 U	740 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	480 U	980 U	850 U	740 U
DIBENZO(A,H)ANTHRACENE	33	150	C	480 U	980 U	850 U	740 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	480 U	980 U	850 U	740 U
FLUORENE	77.4	2300000	N	480 U	980 U	850 U	740 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	480 U	980 U	850 U	740 U
NAPHTHALENE	176	36000	C	480 U	980 U	850 U	740 U
PHENANTHRENE	204	1700000	N[8]	480 U	980 U	850 U	740 U
PYRENE	195	1700000	N	480 U	980 U	850 U	740 U
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	24 U	49 U	42 U	37 U
AROCLOR-1254	59.8 [9]	1100	N[10]	24 U	49 U	42 U	37 U
AROCLOR-1260	59.8 [9]	2200	C	24 U	49 U	42 U	37 U
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.15 UL	0.3 UL	0.27 UJ	0.21 UJ
ARSENIC	9.8	3.9	C	**5.4**	**9.6**	**6.4**	3.4
BARIUM	130 [15]	15000	N	19.6	43.6	49.1	25.4

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-77	SD-80	SD-81	SD-82
SAMPLE ID				SD-77-02	SD-80-02	SD-81-02	SD-82-02
SAMPLE DATE				20081110	20081114	20081114	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				22	22	22	22
BOTTOM DEPTH				26	26	24	26
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.5	2	1.7	0.93
CADMIUM	0.99	70	N	**1.1**	0.018 U	0.72	0.13 B
CHROMIUM	43.4	120000	N[12]	**44.6**	38.3	34.9	24.7
COBALT	50	23	N	9.2	18.6	15.9	9.6
COPPER	31.6	3100	N	21.3	17.2	**39**	14.7
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		14.8	15.6	**134**	10.1
MERCURY	0.18	23	N[14]	0.17	0.025	**0.31**	0.028
MOLYBDENUM	NA	390	N	1.4	0.45 B	1.4 J	1.4 J
NICKEL	22.7	1500	N	17.1	**29.3**	**30**	15.3
SELENIUM	2	390	N	0.67 K	0.98 U	1.9	0.71 U
SILVER	1	390	N	**2.3**	0.19 U	0.17 U	0.13 U
THALLIUM	21.3 [16]	NA		0.25 U	0.51 U	0.46 U	0.37 U
VANADIUM	57 [15]	390	N	42.9 K	49.2	35.2	28
ZINC	121	23000	N	54.4	88.4	**133**	42.9
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		70	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	23000	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-83	SD-84	SD-85	SD-86
SAMPLE ID				SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE				20100820	20100820	20100819	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	0.44 U	1.2 U	1.2 U	**2100**
ACENAPHTHYLENE	5.9	3400000	N[7]	0.52 U	**8.1 J**	1.4 U	**190**
ANTHRACENE	57.2	17000000	N	0.77 J	4.5 J	1.2 U	**2800**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	0.45 U	103	1.2 U	**9537**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	0.45 U	103	1.2 U	**9537**
BENZO(A)ANTHRACENE	108	1500	C	0.57 U	18	1.5 U	**7100**
BENZO(A)PYRENE	150	150	C	0.45 U	14	1.2 U	**6100**
BENZO(B)FLUORANTHENE	NA	1500	C	0.71 U	46	1.9 U	**9600**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	0.45 U	37	1.2 U	**3900**
BENZO(K)FLUORANTHENE	240	15000	C	0.92 U	2.5 U	2.5 U	35 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	0.54 U	20	1.5 U	**7200**
DIBENZO(A,H)ANTHRACENE	33	150	C	0.51 U	**75**	1.4 U	**1400**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	3.6 J	32	1.3 U	**15000**
FLUORENE	77.4	2300000	N	1 J	4.6 J	1.6 U	**1400**
INDENO(1,2,3-CD)PYRENE	17	1500	C	0.47 U	**77**	1.3 U	**3600**
NAPHTHALENE	176	36000	C	0.39 U	1.1 U	1.1 U	**300**
PHENANTHRENE	204	1700000	N[8]	3.1 J	19	3.8 J	**9600**
PYRENE	195	1700000	N	2.2 J	22	1.2 U	**12000**
TOTAL PAHS	1610	NA		10.67	377.2	3.8	**82290**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.1 U	1.5 U	1.5 U	**430 J**
AROCLOR-1254	59.8 [9]	1100	N[10]	1.6 U	2.2 U	2.2 U	2.5 U
AROCLOR-1260	59.8 [9]	2200	C	1.6 U	2.2 U	2.2 U	**250**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	0 U	**680**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.097 B	0.5 L	0.05 B	**5.3 J**
ARSENIC	9.8	3.9	C	2 L	**4.3 L**	2 L	**6.6 J**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-83	SD-84	SD-85	SD-86
SAMPLE ID			SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE			20100820	20100820	20100819	20100818
SAMPLE CODE			NORMAL	NORMAL	NORMAL	NORMAL
MATRIX			SD	SD	SD	SD
SAMPLE TYPE			NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX			SB	SB	SB	SB
TOP DEPTH			24	24	24	24
BOTTOM DEPTH			24	24	24	24
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	0.62	2.7	1.3	1.9 J
CADMIUM	0.99	70 N	0.076 L	**1.9 L**	0.19 L	**296**
CHROMIUM	43.4	120000 N[12]	9.4	39.6	12.8	**2060 J**
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	8.7 L	28.4 L	9.7 L	**147 J**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	7	**38.1**	4.9	**250**
MERCURY	0.18	23 N[14]	0.036	0.14	0.02 J	**0.37**
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	8 L	**34.3 L**	11.2 L	**59.7 J**
SELENIUM	2	390 N	0.33 J	0.9 L	0.55 L	1.4 J
SILVER	1	390 N	0.027 J	0.081 J	0.038 J	**3.2 J**
THALLIUM	21.3 [16]	NA	0.07	0.19	0.093	0.19
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	20.5 L	112 L	35.4 L	**1570 J**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	8850	33400	25500	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	0.29 U	NA
CADMIUM	NA	NA	NA	NA	0.0007 J	NA
CHROMIUM	NA	NA	NA	NA	0.0089 J	NA
COPPER	NA	NA	NA	NA	0.03	NA
LEAD	NA	NA	NA	NA	0.011 J	NA
NICKEL	NA	NA	NA	NA	0.044 J	NA
SILVER	NA	NA	NA	NA	0.00025 U	NA
ZINC	NA	NA	NA	NA	0.35 J	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-87	SD-88	SD-89	SD-90
SAMPLE ID				SD-87-02	SD-88-02	SD-89-02	SD-90-02
SAMPLE DATE				20100818	20100819	20100819	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**230**	**210**	**99 J**	**410**
ACENAPHTHYLENE	5.9	3400000	N[7]	**320**	**260**	**240**	**460**
ANTHRACENE	57.2	17000000	N	**740**	**670**	**330**	**1300**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**4683**	**3332**	**1486**	**7625**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**4683**	**3332**	**1486**	**7625**
BENZO(A)ANTHRACENE	108	1500	C	**2500**	**2200**	**810**	**5000 J**
BENZO(A)PYRENE	150	150	C	**2900**	**2100**	**940**	**5100 J**
BENZO(B)FLUORANTHENE	NA	1500	C	**4600**	**3700**	1300	**7300 J**
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**2300**	**1500**	**910**	**3100 J**
BENZO(K)FLUORANTHENE	240	15000	C	35 U	19 U	20 U	8 J
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**3100**	**2200**	**930**	**5400 J**
DIBENZO(A,H)ANTHRACENE	33	150	C	**860**	**510**	**250**	**1000 J**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	**4600**	**5100**	**1800**	**13000**
FLUORENE	77.4	2300000	N	**180**	**260**	**130**	**560**
INDENO(1,2,3-CD)PYRENE	17	1500	C	**2100**	**1300**	**840**	**2900 J**
NAPHTHALENE	176	36000	C	130 J	**230**	**210**	**230**
PHENANTHRENE	204	1700000	N[8]	**1500**	**1800**	**700**	**4600**
PYRENE	195	1700000	N	**4900**	**3700**	**1500**	**7300 J**
TOTAL PAHS	1610	NA		**30960**	**25740**	**10989**	**57668**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.6 U	2.2 U	2.4 U	1.9 U
AROCLOR-1254	59.8 [9]	1100	N[10]	2.5 U	3.3 U	3.5 U	2.8 U
AROCLOR-1260	59.8 [9]	2200	C	**770 J**	**220**	**1300**	**400**
TOTAL AROCLOR	59.8	2200	C[11]	**770**	**220**	**1300**	**400**
METALS (MG/KG)							
ANTIMONY	2	31	N	**2.4 L**	**2.2 J**	1.3 L	**3 J**
ARSENIC	9.8	3.9	C	**5.3**	**8.3 L**	**10.2**	**6.5**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-87	SD-88	SD-89	SD-90
SAMPLE ID				SD-87-02	SD-88-02	SD-89-02	SD-90-02
SAMPLE DATE				20100818	20100819	20100819	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.5	2.1 L	2.3	1.8
CADMIUM	0.99	70	N	**207**	**35.5 J**	**30.2 L**	**38.7**
CHROMIUM	43.4	120000	N[12]	**1530**	**727 L**	**569**	**690**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**112**	**72.2 L**	**121 L**	**82.7**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**288 K**	**158**	**226**	**195 J**
MERCURY	0.18	23	N[14]	**0.76**	**2**	**2.5**	**4.7**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**43.8**	**38.8 L**	**54.6 L**	**46.1**
SELENIUM	2	390	N	1.3	2 L	**2.4 L**	1.9
SILVER	1	390	N	**8.5**	**13.6 L**	**23**	**29.3**
THALLIUM	21.3 [16]	NA		0.23	0.29	0.36	0.32 J
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**762**	**572 L**	**492**	**524**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		28700	35900	37100	35900
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		4.4	5	0.74 J	18.7
CADMIUM	NA	NA		1.4	0.25	0.19	0.22
CHROMIUM	NA	NA		15.4	5.6	3.9	5.9
COPPER	NA	NA		0.32	0.3	0.48	0.0021 U
LEAD	NA	NA		1	0.5	0.68	0.47
NICKEL	NA	NA		0.29	0.15	0.2	0.19
SILVER	NA	NA		0.0048	0.0072	0.014	0.00066 J
ZINC	NA	NA		9.3	6	4.1	5.3

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-93	SD-94	SD-95	SD-96
SAMPLE ID				SD-93-02	SD-94-02	SD-95-02	SD-96-02
SAMPLE DATE				20100817	20100817	20100817	20100819
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**22 J**	3.5 U	**34 J**	**110**
ACENAPHTHYLENE	5.9	3400000	N[7]	**26**	4.2 U	**51**	**200**
ANTHRACENE	57.2	17000000	N	**66**	3.6 U	**110**	**300**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**420**	3.6 U	**751**	**1332**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**420**	3.6 U	**751**	**1332**
BENZO(A)ANTHRACENE	108	1500	C	**250**	4.5 U	**400**	**750**
BENZO(A)PYRENE	150	150	C	**240**	3.6 U	**450**	**740**
BENZO(B)FLUORANTHENE	NA	1500	C	420	5.7 U	750	1400
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	**220**	3.6 U	**390**	**760**
BENZO(K)FLUORANTHENE	240	15000	C	5.2 U	7.3 U	8 U	19 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	**260**	4.3 U	**450**	**770**
DIBENZO(A,H)ANTHRACENE	33	150	C	**92**	4 U	**150**	**310**
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	420	3.9 U	**670**	**1500**
FLUORENE	77.4	2300000	N	23 J	4.8 U	48	**120**
INDENO(1,2,3-CD)PYRENE	17	1500	C	**210**	3.7 U	**360**	**660**
NAPHTHALENE	176	36000	C	23 J	3.1 U	68	**180**
PHENANTHRENE	204	1700000	N[8]	190	5.8 U	**320**	**660**
PYRENE	195	1700000	N	**430**	3.7 U	**800**	**1400**
TOTAL PAHS	1610	NA		**2892**	0 U	**5051**	**9860**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.5 U	1.7 U	2.4 U	2.2 U
AROCLOR-1254	59.8 [9]	1100	N[10]	2.2 U	2.6 U	3.5 U	3.3 U
AROCLOR-1260	59.8 [9]	2200	C	**150**	2.6 U	**290**	**770**
TOTAL AROCLOR	59.8	2200	C[11]	**150**	0 U	**290**	**770**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.46 L	0.048 J	0.92 L	0.83 J
ARSENIC	9.8	3.9	C	**5.5**	**4.4**	**8.8**	**8.2 L**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-93	SD-94	SD-95	SD-96
SAMPLE ID				SD-93-02	SD-94-02	SD-95-02	SD-96-02
SAMPLE DATE				20100817	20100817	20100817	20100819
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	1.6	1.7	2	1.8 L
CADMIUM	0.99	70	N	**17.9**	0.37	**31.1**	**25.9 J**
CHROMIUM	43.4	120000	N[12]	**218**	24.7	**534**	**441 L**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**42.9**	15.9	**100**	**88.1 L**
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		**73 K**	7.4 J	**191 K**	**163**
MERCURY	0.18	23	N[14]	**1.1**	0.024 J	**2.7**	**1.8**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**27.4**	17	**49.7**	**41.1 L**
SELENIUM	2	390	N	1.2	1	**2.1**	1.9 L
SILVER	1	390	N	**8.1**	0.055 J	**26.8**	**14.4 L**
THALLIUM	21.3 [16]	NA		0.17	0.12 J	0.31	0.27 K
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**213**	52.8	**456**	**387 L**
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-97	SD-98	SD-99	SD-100
SAMPLE ID					SD-97-02	SD-98-02	SD-99-02	SD-100-02
SAMPLE DATE					20100817	20100819	20100819	20100819
SAMPLE CODE					NORMAL	NORMAL	NORMAL	ORIG
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					24	24	24	24
BOTTOM DEPTH					24	24	24	24
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	[4]	28000000	N	NA	NA	NA	NA
ACETONE	60030	[4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	[4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	[5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	[4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	[4]	NA		NA	NA	NA	NA
TOLUENE	2880	[4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	[6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	4.1 U	**63 J**	8.4 U	6.8 U
ACENAPHTHYLENE	5.9		3400000	N[7]	**11 J**	**160**	10 U	8.1 U
ANTHRACENE	57.2		17000000	N	17 J	**230**	8.5 U	6.9 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	58.5	**1023**	8.7 U	7 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	58.5	**1023**	8.7 U	7 U
BENZO(A)ANTHRACENE	108		1500	C	48	**560**	11 U	8.8 U
BENZO(A)PYRENE	150		150	C	34 J	**570**	8.7 U	7 U
BENZO(B)FLUORANTHENE	NA		1500	C	67 J	1100	14 U	11 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	80 J	**600**	8.7 U	7 U
BENZO(K)FLUORANTHENE	240		15000	C	8.6 UJ	19 U	18 U	14 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	90	**580**	10 U	8.4 U
DIBENZO(A,H)ANTHRACENE	33		150	C	4.7 J	**230**	9.7 U	7.8 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	150	**990**	9.3 U	7.5 U
FLUORENE	77.4		2300000	N	5.6 U	75 J	11 U	9.3 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	**82 J**	**560**	9 U	7.3 U
NAPHTHALENE	176		36000	C	3.7 U	160	7.5 U	6.1 U
PHENANTHRENE	204		1700000	N[8]	40 J	**440**	14 U	11 U
PYRENE	195		1700000	N	100	**1000**	8.8 U	7.1 U
TOTAL PAHS	1610		NA		723.7	**7318**	0 U	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	[9]	2200	C	2 U	2.2 U	2.1 U	1.7 U
AROCLOR-1254	59.8	[9]	1100	N[10]	3 U	3.4 U	3.1 U	2.5 U
AROCLOR-1260	59.8	[9]	2200	C	3 U	**880**	3.1 U	2.5 U
TOTAL AROCLOR	59.8		2200	C[11]	0 U	**880**	0 U	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.17 J	0.7 J	0.082 B	0.066 B
ARSENIC	9.8		3.9	C	**6.2**	**7.8 L**	**6.1**	3.8 L
BARIUM	130	[15]	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-97 SD-97-02 20100817 NORMAL SD NORMAL SB 24 24	SD-98 SD-98-02 20100819 NORMAL SD NORMAL SB 24 24	SD-99 SD-99-02 20100819 NORMAL SD NORMAL SB 24 24	SD-100 SD-100-02 20100819 ORIG SD NORMAL SB 24 24
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	1.8	1.8 L	1.8	1 L
CADMIUM	0.99	70 N	**2.5**	**19.2 J**	0.4 L	0.2 J
CHROMIUM	43.4	120000 N[12]	**80.6**	**304 L**	29.6	19.4 L
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	21.7	**88.8 L**	19.7 L	12.3 J
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	24.4 J	**165**	12.8	9
MERCURY	0.18	23 N[14]	0.1	**0.97**	0.037 J	0.031 J
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	**23**	**40.8 L**	22.3 L	14.1 L
SELENIUM	2	390 N	1.3	1.8 L	1.2 L	0.71 L
SILVER	1	390 N	0.73	**8.3 L**	0.066 J	0.043 J
THALLIUM	21.3 [16]	NA	0.17 J	0.29	0.18 K	0.12 K
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	102	**379 L**	74.8	47.4 L
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	34900	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	0.41 U	NA
CADMIUM	NA	NA	NA	NA	0.0013 J	NA
CHROMIUM	NA	NA	NA	NA	0.032	NA
COPPER	NA	NA	NA	NA	0.023 J	NA
LEAD	NA	NA	NA	NA	0.017	NA
NICKEL	NA	NA	NA	NA	0.039 J	NA
SILVER	NA	NA	NA	NA	0.00036 U	NA
ZINC	NA	NA	NA	NA	0.43	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-100 SD-100-02-AVG 20100819 AVG SD NORMAL SB 24 24	SD-100 SD-100-02-D 20100819 DUP SD NORMAL SB 24 24	SD-101 SD-101-02 20100818 NORMAL SD NORMAL SB 24 24	SD-102 SD-102-02 20100818 NORMAL SD NORMAL SB 24 24
VOLATILES (UG/KG)							
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
2-BUTANONE	25710 [4]	28000000	N	NA	NA	NA	NA
ACETONE	60030 [4]	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851	820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42	290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800 [4]	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050 [5]	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86	2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	430000	C	NA	NA	NA	NA
NAPHTHALENE	176	36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880 [4]	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210 [4]	NA		NA	NA	NA	NA
TOLUENE	2880 [4]	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)							
1,2-DICHLOROBENZENE	16.5	1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430	NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599	24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2 [6]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	6.5 U	6.2 U	**29 J**	**25 J**
ACENAPHTHYLENE	5.9	3400000	N[7]	7.75 U	7.4 U	**50**	**56 J**
ANTHRACENE	57.2	17000000	N	6.65 U	6.4 U	**110**	**97 J**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	6.75 U	6.5 U	**580**	**452**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	6.75 U	6.5 U	**580**	**446**
BENZO(A)ANTHRACENE	108	1500	C	8.45 U	8.1 U	**320**	**280**
BENZO(A)PYRENE	150	150	C	6.75 U	6.5 U	**340**	**320**
BENZO(B)FLUORANTHENE	NA	1500	C	10.5 U	10 U	580	580
BENZO(G,H,I)PERYLENE	170	1700000	N[8]	6.75 U	6.5 U	**310**	**410**
BENZO(K)FLUORANTHENE	240	15000	C	13.5 U	13 U	9.7 U	21 U
BIS(2-ETHYLHEXYL)PHTHALATE	180	350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900	2600000	C	NA	NA	NA	NA
CARBAZOLE	NA	NA		NA	NA	NA	NA
CHRYSENE	166	150000	C	8.05 U	7.7 U	**350**	**370**
DIBENZO(A,H)ANTHRACENE	33	150	C	7.5 U	7.2 U	**120**	12 U
DIBENZOFURAN	415	78000	N	NA	NA	NA	NA
FLUORANTHENE	423	2300000	N	7.25 U	7 U	**520**	**600**
FLUORENE	77.4	2300000	N	8.95 U	8.6 U	58	69 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	7 U	6.7 U	**300**	**400**
NAPHTHALENE	176	36000	C	5.85 U	5.6 U	120	130
PHENANTHRENE	204	1700000	N[8]	10.5 U	10 U	**300**	**280**
PYRENE	195	1700000	N	6.85 U	6.6 U	**610**	**640**
TOTAL PAHS	1610	NA		0 U	0 U	**4117**	**4257**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [9]	2200	C	1.6 U	1.5 U	2.2 U	2.4 U
AROCLOR-1254	59.8 [9]	1100	N[10]	2.4 U	2.3 U	3.4 U	3.6 U
AROCLOR-1260	59.8 [9]	2200	C	2.4 U	2.3 U	**62**	**160**
TOTAL AROCLOR	59.8	2200	C[11]	0 U	0 U	**62**	**160**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.058 B	0.05 B	0.86 L	1 J
ARSENIC	9.8	3.9	C	3.85 L	3.9 L	**8.7**	**9.3**
BARIUM	130 [15]	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-100 SD-100-02-AVG 20100819 AVG SD NORMAL SB 24 24	SD-100 SD-100-02-D 20100819 DUP SD NORMAL SB 24 24	SD-101 SD-101-02 20100818 NORMAL SD NORMAL SB 24 24	SD-102 SD-102-02 20100818 NORMAL SD NORMAL SB 24 24
METALS CONTINUED (MG/KG)						
BERYLLIUM	NA	160 N	1.05 L	1.1 L	2.1	2.2 J
CADMIUM	0.99	70 N	0.225 J	0.25 J	**44.7**	**34.9**
CHROMIUM	43.4	120000 N[12]	19.45 L	19.5 L	**719**	**647 K**
COBALT	50	23 N	NA	NA	NA	NA
COPPER	31.6	3100 N	18 J	23.7 J	**83.3**	**99.5**
HEXAVALENT CHROMIUM	43.4	2.9 C[13]	NA	NA	NA	NA
LEAD	35.8	400	9.1	9.2	**169 K**	**207**
MERCURY	0.18	23 N[14]	0.027 J	0.023 J	**1.6**	**1.6**
MOLYBDENUM	NA	390 N	NA	NA	NA	NA
NICKEL	22.7	1500 N	14.2 L	14.3 L	**46.6**	**54.5**
SELENIUM	2	390 N	0.72 L	0.73 L	**2.2**	**2.3**
SILVER	1	390 N	0.045 J	0.047 J	**12.8**	**18.4 J**
THALLIUM	21.3 [16]	NA	0.12 K	0.12 K	0.31	0.36
VANADIUM	57 [15]	390 N	NA	NA	NA	NA
ZINC	121	23000 N	48.2 L	49 L	**479**	**497**
METALS (UG/KG)						
DIBUTYLTIN	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	28400	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	4.4	NA
CADMIUM	NA	NA	NA	NA	0.27	NA
CHROMIUM	NA	NA	NA	NA	4.9	NA
COPPER	NA	NA	NA	NA	0.43	NA
LEAD	NA	NA	NA	NA	0.47	NA
NICKEL	NA	NA	NA	NA	0.21	NA
SILVER	NA	NA	NA	NA	0.0067	NA
ZINC	NA	NA	NA	NA	4.2	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]		Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-103	SD-104	SD-105	SD-106
SAMPLE ID					SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE					20100818	20100818	20100818	20100818
SAMPLE CODE					NORMAL	NORMAL	NORMAL	NORMAL
MATRIX					SD	SD	SD	SD
SAMPLE TYPE					NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX					SB	SB	SB	SB
TOP DEPTH					24	24	24	24
BOTTOM DEPTH					24	24	24	24
VOLATILES (UG/KG)								
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
2-BUTANONE	25710	(4)	28000000	N	NA	NA	NA	NA
ACETONE	60030	(4)	61000000	N	NA	NA	NA	NA
CARBON DISULFIDE	0.851		820000	N	NA	NA	NA	NA
CHLOROBENZENE	8.42		290000	N	NA	NA	NA	NA
CHLOROMETHANE	17800	(4)	120000	N	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	1050	(5)	780000	N	NA	NA	NA	NA
ISOPROPYLBENZENE	86		2100000	N	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA		430000	C	NA	NA	NA	NA
NAPHTHALENE	176		36000	C	NA	NA	NA	NA
SEC-BUTYLBENZENE	880	(4)	NA		NA	NA	NA	NA
TERT-BUTYLBENZENE	1210	(4)	NA		NA	NA	NA	NA
TOLUENE	2880	(4)	5000000	N	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)								
1,2-DICHLOROBENZENE	16.5		1900000	N	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4430		NA		NA	NA	NA	NA
1,4-DICHLOROBENZENE	599		24000	C	NA	NA	NA	NA
1-METHYLNAPHTHALENE	20.2	(6)	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2		310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7		3400000	N	0.39 U	1.8 U	**20 J**	9.2 U
ACENAPHTHYLENE	5.9		3400000	N[7]	0.46 U	2.1 U	**32 J**	11 U
ANTHRACENE	57.2		17000000	N	0.4 U	1.8 U	**69 J**	9.3 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA		150	C	0.4 U	1.8 U	**535**	9.6 U
BAP EQUIVALENT-POSITIVE RESULTS	NA		150	C	0.4 U	1.8 U	**535**	9.6 U
BENZO(A)ANTHRACENE	108		1500	C	0.51 U	2.3 U	**170**	12 U
BENZO(A)PYRENE	150		150	C	0.4 U	1.8 U	**240**	9.6 U
BENZO(B)FLUORANTHENE	NA		1500	C	0.64 U	2.9 U	420	15 U
BENZO(G,H,I)PERYLENE	170		1700000	N[8]	0.4 U	1.8 U	**380**	9.5 U
BENZO(K)FLUORANTHENE	240		15000	C	0.82 U	3.7 U	20 U	19 U
BIS(2-ETHYLHEXYL)PHTHALATE	180		350000	C	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	10900		2600000	C	NA	NA	NA	NA
CARBAZOLE	NA		NA		NA	NA	NA	NA
CHRYSENE	166		150000	C	0.48 U	2.2 U	**250**	11 U
DIBENZO(A,H)ANTHRACENE	33		150	C	0.45 U	2 U	**200**	11 U
DIBENZOFURAN	415		78000	N	NA	NA	NA	NA
FLUORANTHENE	423		2300000	N	0.43 U	2 U	330	10 U
FLUORENE	77.4		2300000	N	0.53 U	2.4 U	29 J	13 U
INDENO(1,2,3-CD)PYRENE	17		1500	C	0.42 U	1.9 U	**360**	9.8 U
NAPHTHALENE	176		36000	C	0.35 U	1.6 U	78 J	8.2 U
PHENANTHRENE	204		1700000	N[8]	1.2 J	4.3 J	190	15 U
PYRENE	195		1700000	N	0.41 U	1.9 U	**470**	9.7 U
TOTAL PAHS	1610		NA		1.2	4.3	**3238**	0 U
PCBS (UG/KG)								
AROCLOR-1248	59.8	(9)	2200	C	0.96 U	2.1 U	2.4 U	2.3 U
AROCLOR-1254	59.8	(9)	1100	N[10]	1.4 U	3.2 U	3.6 U	3.4 U
AROCLOR-1260	59.8	(9)	2200	C	1.4 U	3.2 U	**140**	3.4 U
TOTAL AROCLOR	59.8		2200	C[11]	0 U	0 U	**140**	0 U
METALS (MG/KG)								
ANTIMONY	2		31	N	0.057 B	0.095 B	0.75 J	0.07 B
ARSENIC	9.8		3.9	C	1.4	**6**	**9.2**	**4.9 L**
BARIUM	130	(15)	15000	N	NA	NA	NA	NA

Table 4-6
Detected Concentrations Table for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-103	SD-104	SD-105	SD-106
SAMPLE ID				SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE				20100818	20100818	20100818	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				24	24	24	24
BOTTOM DEPTH				24	24	24	24
METALS CONTINUED (MG/KG)							
BERYLLIUM	NA	160	N	0.22 J	1.7 J	2.1 J	1.4 L
CADMIUM	0.99	70	N	0.13	0.39	**10.9**	0.29 J
CHROMIUM	43.4	120000	N[12]	15.7 K	35.9 K	**260 K**	27.9 L
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	22.1	18.9	**113**	16 L
HEXAVALENT CHROMIUM	43.4	2.9	C[13]	NA	NA	NA	NA
LEAD	35.8	400		6.9 J	13.5	**182**	12.5
MERCURY	0.18	23	N[14]	0.0066 U	0.043 J	**0.75**	0.041 J
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	0.67	22.7	**47.4**	20.5 L
SELENIUM	2	390	N	0.81	1.1	**2.1**	1 L
SILVER	1	390	N	0.0088 J	0.064 J	**4 J**	0.055 J
THALLIUM	21.3 [16]	NA		0.059 J	0.2	0.28	0.18 K
VANADIUM	57 [15]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	2	72.3	**418**	70.2 L
METALS (UG/KG)							
DIBUTYLTIN	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).
2 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.
3 - Concentrations exceeding the ESV are shaded black with white font. Concentrations exceeding the adjusted RSL for residential soil are shaded blue with black font. Concentrations exceeding both the ESV and the RSL are shaded red with white font.
4 - TCEQ Ecological Benchmarks for Sediment, January 2006.
5 - Value for trans-1,2-dichloroethene used as a surrogate for cis-1,2-dichloroethene.
6 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.
7 - The value for acenapthene is used as a surrogate for acenaphthylene.
8 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
9 - Value for Total PCBs used as a surrogate for Aroclor-1248, Aroclor-1254 and Aroclor-1260.
10 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.
11 - The value is for high risk PCBs.
12 - The value is for trivalent chromium.
13 - The value is for hexavalent chromium.
14 - The value is for mercuric chloride.
15 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
16 - Value is for marine sediment.

Definitions:
B = Blank contamination
C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available
R = Rejected
SB = Subsurface sediment
SD = Sediment
U = Non-detected

Table 4-7
Occurrence and Distribution of Chemicals - Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Volatile Organics (ug/kg)												
2-BUTANONE	3/5	13 J	40 J	SD-16	43	74	24.7	26.5	25710 [6]	0	28000000 N	0
ACETONE	4/10	110	240	SD-16, SD-40	21	140	178	92.6	60030 [6]	0	61000000 N	0
CARBON DISULFIDE	4/10	5 J	11 J	SD-16	7	12	7.8	5.9	0.851	4	820000 N	0
CHLOROBENZENE	1/10	7 J	7 J	SD-27	7	16	7	6.0	8.42	0	290000 N	0
CIS-1,2-DICHLOROETHENE	1/10	2 J	2 J	SD-19	7	16	2	5.5	1050 [7]	0	780000 N	0
ISOPROPYLBENZENE	2/10	3 J	38 K	SD-13	7	16	20.5	8.8	86	0	2100000 N	0
METHYL TERT-BUTYL ETHER	2/10	2 J	3 J	SD-31	14	27	2.5	8.7	NA	0	430000 C	0
SEC-BUTYLBENZENE	2/10	7 J	180 K	SD-13	7	16	93.5	23.4	880 [6]	0	NA	0
TOLUENE	4/10	1 J	10	SD-19	10	16	5.8	6.2	2880 [6]	0	5000000 N	0
Semivolatile Organics (ug/kg)												
1-METHYLNAPHTHALENE	3/46	88 J	950	SD-58	340	1100	393	345	20.2 [8]	3	220000 C	0
2-METHYLNAPHTHALENE	4/46	310 J	1100 J	SD-58	340	1100	568	359	20.2	4	310000 N	0
ACENAPHTHENE	18/68	20 J	11000 J	SD-58	0.39	1100	919	440	6.7	18	3400000 N	0
ACENAPHTHYLENE	16/68	8.1 J	460	SD-90	0.46	1100	141	257	5.9	16	3400000 N[9]	0
ANTHRACENE	29/68	0.77 J	19000	SD-58	0.4	1100	1067	613	57.2	25	17000000 N	0
BAP EQUIVALENT-1/2 NON-DETECTS	32/68	58.5	38692	SD-58	0.4	1100	3359	1711	NA	0	150 C	30
BAP EQUIVALENT-POSITIVE RESULTS	32/68	17.2	38387	SD-58	0.4	1100	3069	1574	NA	0	150 C	23
BENZO(A)ANTHRACENE	23/68	18	38000	SD-58	0.51	1100	3299	1300	108	21	1500 C	10
BENZO(A)PYRENE	24/68	14	30000	SD-58	0.4	1100	2864	1190	150	22	150 C	22
BENZO(B)FLUORANTHENE	32/68	46	31000	SD-58	0.64	1100	2890	1490	NA	0	1500 C	10
BENZO(G,H,I)PERYLENE	24/68	37	11000 J	SD-58	0.4	1100	1582	735	170	22	1700000 N[10]	0
BENZO(K)FLUORANTHENE	17/68	8 J	25000	SD-58	0.82	1100	2398	742	240	11	15000 C	1
BIS(2-ETHYLHEXYL)PHTHALATE	5/9	140 J	1700	SD-40	460	740	704	527	180	4	350000 C	0
CARBAZOLE	2/9	400 J	410 J	SD-16	460	1000	405	358	NA	0	NA	0
CHRYSENE	32/68	20	37000	SD-58	0.48	1100	2727	1414	166	30	150000 C	0
DIBENZO(A,H)ANTHRACENE	17/68	4.7 J	1400	SD-86	0.45	1100	487	331	33	16	150 C	12
DIBENZOFURAN	2/9	240 J	330 J	SD-13	460	1000	285	331	415	0	78000 N	0
FLUORANTHENE	36/68	3.6 J	78000	SD-58	0.43	1100	4494	2496	423	24	2300000 N	0
FLUORENE	22/68	1 J	10000 J	SD-58	0.53	1100	700	416	77.4	14	2300000 N	0
INDENO(1,2,3-CD)PYRENE	28/68	70 J	12000 J	SD-58	0.42	1100	1382	719	17	28	1500 C	7
NAPHTHALENE	18/68	23 J	2200 J	SD-58	0.35	1100	338	289	176	10	36000 C	0
PHENANTHRENE	36/68	1.2 J	76000	SD-58	5.8	1100	3267	1862	204	25	1700000 N[10]	0
PYRENE	35/68	2.2 J	76000	SD-58	0.41	1100	5016	2703	195	31	1700000 N	0
TOTAL PAHS	39/68	1.2	457300	SD-58	0	0	25090	14390	1610	29	NA	0
PCBs (ug/kg)												
AROCLOR-1248	1/68	430 J	430 J	SD-86	0.96	6100	430	83.1	59.8 [11]	1	2200 C	0
AROCLOR-1260	26/68	28 J	1300	SD-89	1.4	56	372	151	59.8 [11]	24	2200 C	0
TOTAL AROCLOR	26/68	28	1300	SD-89	0	0	389	149	59.8	24	2200 C[12]	0
Metals (mg/kg)												
ANTIMONY	33/69	0.048 J	132 L	SD-58	0.05	0.97	5.5	2.7	2	12	31 N	1
ARSENIC	68/69	1.4	12.3	SD-50	0.77	0.77	6.3	6.2	9.8	7	3.9 C	55
BARIUM	47/47	8	238	SD-58	--	--	52.4	52.4	130 [15]	1	15000 N	0
BERYLLIUM	69/69	0.22 J	2.9	SD-69	--	--	1.8	1.8	NA	0	160 N	0
CADMIUM	63/69	0.016	296	SD-86	0.0074	0.13	21.7	19.8	0.99	42	70 N	2
CHROMIUM	69/69	9.4	2060 J	SD-86	--	--	309	309	43.4	42	120000 N[13]	0
COBALT	47/47	1.1	37.9	SD-69	--	--	14.0	14.0	50	0	23 N	2
COPPER	69/69	7.4 J	147 J	SD-86	--	--	47.5	47.5	31.6	35	3100 N	0
LEAD	69/69	4.1	316	SD-40	--	--	89.4	89.4	35.8	37	400	0
MERCURY	60/69	0.0079	6.1 L	SD-16	0.0066	0.054	0.94	0.82	0.18	38	23 N[14]	0
MOLYBDENUM	43/47	0.059	4.7	SD-75	0.07	0.45	1.4	1.3	NA	0	390 N	0
NICKEL	69/69	0.67	66.2	SD-50	--	--	30.5	30.5	22.7	42	1500 N	0
SELENIUM	52/69	0.33 J	2.8	SD-54	0.33	1.04	1.4	1.2	2	11	390 N	0
SILVER	54/69	0.0088 J	55.8	SD-76	0.074	0.46	10.0	7.8	1	39	390 N	0
THALLIUM	25/69	0.059 J	2.3	SD-58	0.2	1.78	0.37	0.29	21.3 [16]	0	NA	0
VANADIUM	47/47	15.8	110 K	SD-76	--	--	45.2	45.2	57 [15]	9	390 N	0
ZINC	69/69	2	2980	SD-58	--	--	288	288	121	35	23000 N	0

Table 4-7
Occurrence and Distribution of Chemicals - Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil[1]
Metals (ug/kg)												
DIBUTYLTIN	2/3	5.5	8.5	SD-40	2.8	2.8	7.0	5.1	NA	0	NA	0
Miscellaneous Parameters (%)												
PERCENT SOLIDS	37/37	30	83	SD-55	--	--	51.5	51.5	NA	0	NA	0
Miscellaneous Parameters (mg/kg)												
TOTAL ORGANIC CARBON	21/21	3100	54000 K	SD-31	--	--	25064	25064	NA	0	NA	0
AVS/SEM (umoles/g)												
ACID VOLATILE SULFIDE	5/7	0.74 J	18.7	SD-90	0.29	0.41	6.6	4.8	NA	0	NA	0
CADMIUM	7/7	0.0007 J	1.4	SD-87	--	--	0.33	0.33	NA	1	NA	0
CHROMIUM	7/7	0.0089 J	15.4	SD-87	--	--	5.1	5.1	NA	0	NA	0
COPPER	6/7	0.023 J	0.48	SD-89	0.0021	0.0021	0.26	0.23	NA	0	NA	0
LEAD	7/7	0.011 J	1	SD-87	--	--	0.45	0.45	NA	0	NA	0
NICKEL	7/7	0.039 J	0.29	SD-87	--	--	0.16	0.16	NA	0	NA	0
SILVER	5/7	0.0007 J	0.014	SD-89	0.00025	0.00036	0.0067	0.0048	NA	0	NA	0
ZINC	7/7	0.35 J	9.3	SD-87	--	--	4.2	4.2	NA	0	NA	0

Notes:

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.

2 - Average of positive analytical results only.

3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).

5 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.

6 - TCEQ Ecological Benchmarks for Sediment, January 2006.

7 - Value for trans-1,2-dichloroethene used as a surrogate for cis-1,2-dichloroethene.

8 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.

9 - The value for acenapthene is used as a surrogate for acenaphthylene.

10 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.

11 - Value for Total PCBs used as a surrogate for Aroclor-1248 and Aroclor-1260.

12 - The value is for high risk PCBs.

13 - The value is for trivalent chromium.

14 - The value is for mercuric chloride.

15 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.

16 - Value is for marine sediment.

Definitions:

C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available

Associated Samples:

SD-95-02	SD-14-02	SD-48-02	SD-75-02
SD-96-02	SD-16-02	SD-49-02	SD-75-02-D
SD-97-02	SD-19-02	SD-50-02	SD-76-02
SD-98-02	SD-27-02	SD-51-02	SD-77-02
SD-99-02	SD-28-02	SD-51-02-D	SD-80-02
SD-100-02	SD-29-02	SD-53-02	SD-81-02
SD-100-02-D	SD-31-02	SD-54-02	SD-82-02
SD-101-02	SD-40-02	SD-55-02	SD-83-02
SD-102-02	SD-42-02	SD-56-02	SD-84-02
SD-103-02	SD-43-02	SD-57-02	SD-85-02
SD-104-02	SD-44-02	SD-58-02	SD-86-02
SD-105-02	SD-45-02	SD-59-02	SD-87-02
SD-106-02	SD-46-02	SD-59-02-D	SD-88-02
SD-13-02	SD-47-02	SD-60-02	

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	BOWLEY BOWLEYS_QUARTERS-04 20100821 NORMAL SD BACKGROUND SB 48 48	DOWNSTREAM MIDDLE_RIVER_DOWNSTREAM- 20100820 NORMAL SD OFFSITE SB 48 48	MARSHY_POINT MARSHY_POINT-04 20100821 NORMAL SD BACKGROUND SB 48 48	SD-43 SD-43-04 20081117 NORMAL SD NORMAL SB 36 40
SEMIVOLATILES (UG/KG)						
1-METHYLNAPHTHALENE	20.2 [4]	220000 C	NA	NA	NA	450 U
2-METHYLNAPHTHALENE	20.2	310000 N	NA	NA	NA	450 U
ACENAPHTHENE	6.7	3400000 N	2.3 U	1.9 U	4.3 U	450 U
ACENAPHTHYLENE	5.9	3400000 N[5]	2.8 U	2.3 U	5.1 U	450 U
ANTHRACENE	57.2	17000000 N	2.4 U	2 U	4.4 U	450 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150 C	2.4 U	2 U	4.5 U	450 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150 C	2.4 U	2 U	4.5 U	450 U
BENZO(A)ANTHRACENE	108	1500 C	3.1 U	2.5 U	5.6 U	450 U
BENZO(A)PYRENE	150	150 C	2.4 U	2 U	4.5 U	450 U
BENZO(B)FLUORANTHENE	NA	1500 C	3.8 U	3.2 U	7 U	450 U
BENZO(G,H,I)PERYLENE	170	1700000 N[6]	2.4 U	2 U	4.4 U	450 U
BENZO(K)FLUORANTHENE	240	15000 C	4.9 U	4.1 U	9 U	450 U
CHRYSENE	166	150000 C	2.9 U	2.4 U	5.3 U	450 U
DIBENZO(A,H)ANTHRACENE	33	150 C	2.7 U	2.2 U	5 U	450 U
FLUORANTHENE	423	2300000 N	2.6 U	2.1 U	4.8 U	450 U
FLUORENE	77.4	2300000 N	3.2 U	2.6 U	5.9 U	450 U
INDENO(1,2,3-CD)PYRENE	17	1500 C	2.5 U	2.1 U	4.6 U	450 U
NAPHTHALENE	176	36000 C	2.1 U	1.7 U	3.8 U	450 U
PHENANTHRENE	204	1700000 N[6]	3.9 U	3.2 U	7.1 U	450 U
PYRENE	195	1700000 N	2.5 U	2 U	4.5 U	450 U
TOTAL PAHS	1610	NA	0 U	0 U	0 U	0 U
PCBS (UG/KG)						
AROCLOR-1248	59.8 [7]	2200 C	1.2 U	2.4 U	2.1 U	28 U
AROCLOR-1254	59.8 [7]	1100 N[8]	1.7 U	3.6 U	3.1 U	28 U
AROCLOR-1260	59.8 [7]	2200 C	1.7 U	3.6 U	3.1 U	28 U
TOTAL AROCLOR	59.8	2200 C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)						
ANTIMONY	2	31 N	0.032 J	0.48 B	0.079 J	0.16 U
ARSENIC	9.8	3.9 C	1.6	**5.7 L**	**6.8**	3
BARIUM	130 [12]	15000 N	NA	NA	NA	46.1 J
BERYLLIUM	NA	160 N	0.33	1.6	1.4	1.1 J
CADMIUM	0.99	70 N	0.096	0.64 L	0.34	0.12 B
CHROMIUM	43.4	120000 N[10]	8.9	33.7	32.9	24.1 J
COBALT	50	23 N	NA	NA	NA	9.4
COPPER	31.6	3100 N	4.9	18.8 L	14	13.3 J
LEAD	35.8	400	4.3	16.6	18.6	8.1 J
MERCURY	0.18	23 N[11]	0.008 U	0.045 J	0.051	0.039 B
MOLYBDENUM	NA	390 N	NA	NA	NA	0.56
NICKEL	22.7	1500 N	6.6	**24.8 L**	**27.3**	13.8
SELENIUM	2	390 N	0.42	1 L	1.1	0.94
SILVER	1	390 N	0.026 J	0.062 J	0.07 J	0.11 B
THALLIUM	21.3 [13]	NA	0.061 J	0.19	0.19	0.27 U
VANADIUM	57 [12]	390 N	NA	NA	NA	42.5 J
ZINC	121	23000 N	23.1	101 L	94.7	32
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	NA	NA	NA	60
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	32000	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-44	SD-45	SD-46	SD-47
SAMPLE ID				SD-44-04	SD-45-04	SD-46-04	SD-47-04
SAMPLE DATE				20081117	20081117	20081115	20081115
SAMPLE CODE				NORMAL	NORMAL	NORMAL	ORIG
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				30	45	46	43
BOTTOM DEPTH				34	49	50	51
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	670 U	680 U	740 U	400 U
2-METHYLNAPHTHALENE	20.2	310000	N	670 U	680 U	740 U	400 U
ACENAPHTHENE	6.7	3400000	N	670 U	680 U	740 U	400 U
ACENAPHTHYLENE	5.9	3400000	N[5]	670 U	680 U	740 U	400 U
ANTHRACENE	57.2	17000000	N	670 U	680 U	740 U	400 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	670 U	680 U	740 U	400 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	670 U	680 U	740 U	400 U
BENZO(A)ANTHRACENE	108	1500	C	670 U	680 U	740 U	400 U
BENZO(A)PYRENE	150	150	C	670 U	680 U	740 U	400 U
BENZO(B)FLUORANTHENE	NA	1500	C	670 U	680 U	740 U	400 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	670 U	680 U	740 U	400 U
BENZO(K)FLUORANTHENE	240	15000	C	670 U	680 U	740 U	400 U
CHRYSENE	166	150000	C	670 U	680 U	740 U	400 U
DIBENZO(A,H)ANTHRACENE	33	150	C	670 U	680 U	740 U	400 U
FLUORANTHENE	423	2300000	N	670 U	680 U	740 U	400 U
FLUORENE	77.4	2300000	N	670 U	680 U	740 U	400 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	670 U	680 U	740 U	400 U
NAPHTHALENE	176	36000	C	670 U	680 U	740 U	400 U
PHENANTHRENE	204	1700000	N[6]	670 U	680 U	740 U	400 U
PYRENE	195	1700000	N	670 U	680 U	740 U	400 U
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	33 U	34 U	37 U	20 U
AROCLOR-1254	59.8 [7]	1100	N[8]	33 U	34 U	37 U	20 U
AROCLOR-1260	59.8 [7]	2200	C	33 U	34 U	37 U	20 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.19 U	0.2 U	0.22 UL	0.12 UL
ARSENIC	9.8	3.9	C	2.3	3.8	**4.5**	2.2
BARIUM	130 [12]	15000	N	27.7	22.8	27.5	11.9
BERYLLIUM	NA	160	N	2.4	1.5	1.9	1.6
CADMIUM	0.99	70	N	0.15	0.19	0.23	0.13
CHROMIUM	43.4	120000	N[10]	18.5	21.4	25.9	16.6
COBALT	50	23	N	16.6	10	13.6	2.9
COPPER	31.6	3100	N	12.6	12.4	16.5	7.7
LEAD	35.8	400		6.3	7.2	9.6	4.1
MERCURY	0.18	23	N[11]	0.015	0.022	0.057 B	0.014 B
MOLYBDENUM	NA	390	N	1.5	1.3	1.1	0.45
NICKEL	22.7	1500	N	18.5	12.8	18.3	11.6
SELENIUM	2	390	N	1	0.97	0.74	0.91
SILVER	1	390	N	0.17	0.16	0.14	0.18
THALLIUM	21.3 [13]	NA		0.33 U	0.34 U	0.37 U	0.21 U
VANADIUM	57 [12]	390	N	27.7	25.7	34.9	27.7
ZINC	121	23000	N	48.9	44.7	53.1	28.3
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		50	49	45	82
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		30000	NA	20000	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-47 SD-47-04-AVG 20081115 AVG SD NORMAL SB 43 51	SD-47 SD-47-04-D 20081115 DUP SD NORMAL SB 43 51	SD-48 SD-48-04 20081115 NORMAL SD NORMAL SB 46 50	SD-49 SD-49-04 20081115 NORMAL SD NORMAL SB 46 50
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	400 U	400 U	400 U	470 U
2-METHYLNAPHTHALENE	20.2	310000	N	400 U	400 U	400 U	470 U
ACENAPHTHENE	6.7	3400000	N	400 U	400 U	400 U	470 U
ACENAPHTHYLENE	5.9	3400000	N[5]	400 U	400 U	400 U	470 U
ANTHRACENE	57.2	17000000	N	400 U	400 U	400 U	470 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	400 U	400 U	400 U	470 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	400 U	400 U	400 U	470 U
BENZO(A)ANTHRACENE	108	1500	C	400 U	400 U	400 U	470 U
BENZO(A)PYRENE	150	150	C	400 U	400 U	400 U	470 U
BENZO(B)FLUORANTHENE	NA	1500	C	400 U	400 U	400 U	470 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	400 U	400 U	400 U	470 U
BENZO(K)FLUORANTHENE	240	15000	C	400 U	400 U	400 U	470 U
CHRYSENE	166	150000	C	400 U	400 U	400 U	470 U
DIBENZO(A,H)ANTHRACENE	33	150	C	400 U	400 U	400 U	470 U
FLUORANTHENE	423	2300000	N	400 U	400 U	400 U	470 U
FLUORENE	77.4	2300000	N	400 U	400 U	400 U	470 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	400 U	400 U	400 U	470 U
NAPHTHALENE	176	36000	C	400 U	400 U	400 U	470 U
PHENANTHRENE	204	1700000	N[6]	400 U	400 U	400 U	470 U
PYRENE	195	1700000	N	400 U	400 U	400 U	470 U
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	20 U	20 U	20 U	30 U
AROCLOR-1254	59.8 [7]	1100	N[8]	20 U	20 U	20 U	30 U
AROCLOR-1260	59.8 [7]	2200	C	20 U	20 U	20 U	30 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.12 UL	0.12 UL	0.11 UL	0.17 U
ARSENIC	9.8	3.9	C	2.35	2.5	0.75 B	3.5
BARIUM	130 [12]	15000	N	11.35	10.8	11.6	18.3 J
BERYLLIUM	NA	160	N	1.65	1.7	0.46	1.1 J
CADMIUM	0.99	70	N	0.14	0.15	0.022	0.14 B
CHROMIUM	43.4	120000	N[10]	16.85	17.1	13.8	18.4 J
COBALT	50	23	N	2.75	2.6	1.3	8.7
COPPER	31.6	3100	N	7.8	7.9	5	10.8 J
LEAD	35.8	400		3.95	3.8	4.5	8.3 J
MERCURY	0.18	23	N[11]	0.014 B	0.014 B	0.037 B	0.027 B
MOLYBDENUM	NA	390	N	0.455	0.46	0.16 B	0.96
NICKEL	22.7	1500	N	11.6	11.6	3.9	12.2
SELENIUM	2	390	N	0.905	0.9	0.37 U	0.67
SILVER	1	390	N	0.225	0.27	0.072 U	0.11 U
THALLIUM	21.3 [13]	NA		0.21 U	0.21 U	0.2 U	0.3 U
VANADIUM	57 [12]	390	N	27.85	28	23.7	18.8 J
ZINC	121	23000	N	28.3	28.3	7	45.3
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		82.5	83	84	56
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	14000
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-50	SD-51	SD-53	SD-54
SAMPLE ID				SD-50-04	SD-51-04	SD-53-04	SD-54-04
SAMPLE DATE				20081114	20081115	20081114	20081114
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				44	46	42	40
BOTTOM DEPTH				48	50	46	44
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	720 U	870 U	600 U	530 U
2-METHYLNAPHTHALENE	20.2	310000	N	720 U	870 U	600 U	530 U
ACENAPHTHENE	6.7	3400000	N	720 U	870 U	600 U	530 U
ACENAPHTHYLENE	5.9	3400000	N[5]	720 U	870 U	600 U	530 U
ANTHRACENE	57.2	17000000	N	720 U	870 U	600 U	530 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**810**	870 U	600 U	530 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	18.2	870 U	600 U	530 U
BENZO(A)ANTHRACENE	108	1500	C	720 U	870 U	600 U	530 U
BENZO(A)PYRENE	150	150	C	720 U	870 U	600 U	530 U
BENZO(B)FLUORANTHENE	NA	1500	C	160 J	870 U	600 U	530 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	720 U	870 U	600 U	530 U
BENZO(K)FLUORANTHENE	240	15000	C	200 J	870 U	600 U	530 U
CHRYSENE	166	150000	C	**220 J**	870 U	600 U	530 U
DIBENZO(A,H)ANTHRACENE	33	150	C	720 U	870 U	600 U	530 U
FLUORANTHENE	423	2300000	N	360 J	870 U	600 U	530 U
FLUORENE	77.4	2300000	N	720 U	870 U	600 U	530 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	720 U	870 U	600 U	530 U
NAPHTHALENE	176	36000	C	720 U	870 U	600 U	530 U
PHENANTHRENE	204	1700000	N[6]	180 J	870 U	600 U	530 U
PYRENE	195	1700000	N	**480 J**	870 U	600 U	530 U
TOTAL PAHS	1610	NA		1600	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	720 UJ	44 U	30 U	27 U
AROCLOR-1254	59.8 [7]	1100	N[8]	720 UJ	44 U	30 U	27 U
AROCLOR-1260	59.8 [7]	2200	C	36 U	44 U	30 U	27 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.21 UJ	0.27 UL	0.18 UL	0.16 UL
ARSENIC	9.8	3.9	C	**7.4**	**8.8**	**4.6**	2.6
BARIUM	130 [12]	15000	N	37.4	48.2	18.2	16
BERYLLIUM	NA	160	N	1.8	2.2	1.2	2.3
CADMIUM	0.99	70	N	**12**	**3.6**	0.054	0.0092 U
CHROMIUM	43.4	120000	N[10]	**242**	**153**	19.4	19.6
COBALT	50	23	N	16	20	6.5	8
COPPER	31.6	3100	N	**34.2**	**42.3**	12.6	10.9
LEAD	35.8	400		**46.9**	**76.6**	6.5	6.5
MERCURY	0.18	23	N[11]	**0.43**	**0.24**	0.023	0.023
MOLYBDENUM	NA	390	N	1.1 J	1.3	0.78	0.91
NICKEL	22.7	1500	N	**27.5**	**30.4**	12.1	17.4
SELENIUM	2	390	N	1	1.8	0.99	0.94
SILVER	1	390	N	**2.7**	**1.8**	0.11 U	0.13
THALLIUM	21.3 [13]	NA		0.37 U	0.46 U	0.3 U	0.27 U
VANADIUM	57 [12]	390	N	34.5	45	21.3	31
ZINC	121	23000	N	**190**	**146**	36.3	34.7
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	38	55	63
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-56 SD-56-04 20081113 ORIG SD NORMAL SB 44 52	SD-56 SD-56-04-AVG 20081113 AVG SD NORMAL SB 44 52	SD-56 SD-56-04-D 20081113 DUP SD NORMAL SB 44 52	SD-57 SD-57-04 20081114 NORMAL SD NORMAL SB 44 48
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	640 U	645 U	650 U	770 U
2-METHYLNAPHTHALENE	20.2	310000	N	640 U	645 U	650 U	770 U
ACENAPHTHENE	6.7	3400000	N	640 U	645 U	650 U	770 U
ACENAPHTHYLENE	5.9	3400000	N[5]	640 U	645 U	650 U	770 U
ANTHRACENE	57.2	17000000	N	640 U	645 U	650 U	770 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	640 U	645 U	650 U	770 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	640 U	645 U	650 U	770 U
BENZO(A)ANTHRACENE	108	1500	C	640 U	645 U	650 U	770 U
BENZO(A)PYRENE	150	150	C	640 U	645 U	650 U	770 U
BENZO(B)FLUORANTHENE	NA	1500	C	640 U	645 U	650 U	770 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	640 U	645 U	650 U	770 U
BENZO(K)FLUORANTHENE	240	15000	C	640 U	645 U	650 U	770 U
CHRYSENE	166	150000	C	640 U	645 U	650 U	770 U
DIBENZO(A,H)ANTHRACENE	33	150	C	640 U	645 U	650 U	770 U
FLUORANTHENE	423	2300000	N	79 J	79 J	650 U	770 U
FLUORENE	77.4	2300000	N	640 U	645 U	650 U	770 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	640 U	645 U	650 U	770 U
NAPHTHALENE	176	36000	C	640 U	645 U	650 U	770 U
PHENANTHRENE	204	1700000	N[6]	640 U	645 U	650 U	770 U
PYRENE	195	1700000	N	640 U	645 U	650 U	770 U
TOTAL PAHS	1610	NA		79	79	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	32 U	32 U	32 U	39 U
AROCLOR-1254	59.8 [7]	1100	N[8]	32 U	32 U	32 U	39 U
AROCLOR-1260	59.8 [7]	2200	C	32 U	32 U	32 U	39 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.19 UL	0.195 UL	0.2 UL	0.24 UJ
ARSENIC	9.8	3.9	C	**5.8**	**5.95**	**6.1**	**8.5**
BARIUM	130 [12]	15000	N	27.2	27.4	27.6	27.6
BERYLLIUM	NA	160	N	1.9	1.95	2	1.9
CADMIUM	0.99	70	N	**3.6**	**3.5**	**3.4**	0.014 U
CHROMIUM	43.4	120000	N[10]	**79.2**	**78.95**	**78.7**	31.6
COBALT	50	23	N	11.3	11.45	11.6	12
COPPER	31.6	3100	N	29.2	29.75	30.3	18.3
LEAD	35.8	400		24.5	24.7	24.9	10.6
MERCURY	0.18	23	N[11]	0.087	0.0905	0.094	0.022
MOLYBDENUM	NA	390	N	1.1	1.15	1.2	1 B
NICKEL	22.7	1500	N	**23.6**	**24.15**	**24.7**	21.7
SELENIUM	2	390	N	1.1	1.15	1.2	0.84
SILVER	1	390	N	**1.5**	**1.5**	**1.5**	0.15 U
THALLIUM	21.3 [13]	NA		0.32 U	0.33 U	0.34 U	0.41 U
VANADIUM	57 [12]	390	N	41.5	43.2	44.9	36.9
ZINC	121	23000	N	81.3	82.15	83	63.2
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		52	52	52	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-58	SD-59	SD-60	SD-61
SAMPLE ID				SD-58-04	SD-59-04	SD-60-04	SD-61-04
SAMPLE DATE				20081114	20081115	20081112	20081113
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				45	46	38	46
BOTTOM DEPTH				49	50	42	50
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	620 U	340 U	340 U	400 U
2-METHYLNAPHTHALENE	20.2	310000	N	620 U	340 U	340 U	400 U
ACENAPHTHENE	6.7	3400000	N	620 U	340 U	340 U	400 U
ACENAPHTHYLENE	5.9	3400000	N[5]	620 U	340 U	340 U	400 U
ANTHRACENE	57.2	17000000	N	620 U	340 U	340 U	400 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**716**	340 U	340 U	400 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	0.090	340 U	340 U	400 U
BENZO(A)ANTHRACENE	108	1500	C	620 U	340 U	340 U	400 U
BENZO(A)PYRENE	150	150	C	620 U	340 U	340 U	400 U
BENZO(B)FLUORANTHENE	NA	1500	C	620 U	340 U	340 U	400 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	620 U	340 U	340 U	400 U
BENZO(K)FLUORANTHENE	240	15000	C	620 U	340 U	340 U	400 U
CHRYSENE	166	150000	C	90 J	340 U	340 U	400 U
DIBENZO(A,H)ANTHRACENE	33	150	C	620 U	340 U	340 U	400 U
FLUORANTHENE	423	2300000	N	180 J	340 U	340 U	400 U
FLUORENE	77.4	2300000	N	620 U	340 U	340 U	400 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	620 U	340 U	340 U	400 U
NAPHTHALENE	176	36000	C	620 U	340 U	340 U	400 U
PHENANTHRENE	204	1700000	N[6]	160 J	340 U	340 U	400 U
PYRENE	195	1700000	N	180 J	340 U	340 U	400 U
TOTAL PAHS	1610	NA		610	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	31 U	22 U	21 U	20 U
AROCLOR-1254	59.8 [7]	1100	N[8]	31 U	22 U	21 U	20 U
AROCLOR-1260	59.8 [7]	2200	C	31 U	22 U	21 U	20 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.19 UJ	0.12 U	0.22 J	0.12 UL
ARSENIC	9.8	3.9	C	**8.1**	2.1	3.3	1.1
BARIUM	130 [12]	15000	N	33.2	9.2 J	15.7 J	4.4
BERYLLIUM	NA	160	N	2.8	2.4 J	0.76 J	0.17
CADMIUM	0.99	70	N	0.012 U	0.0072 U	0.0077 U	0.0073 U
CHROMIUM	43.4	120000	N[10]	39.7	19.8 J	20.7 J	8
COBALT	50	23	N	16.2	4.5	2.6 J	0.76
COPPER	31.6	3100	N	19.4	7.5 J	7.3 J	1.6
LEAD	35.8	400		11.5	5.8 J	5.4	1.5
MERCURY	0.18	23	N[11]	0.015	0.015 B	0.0087	0.0072 U
MOLYBDENUM	NA	390	N	1.7	0.5	0.32	0.052
NICKEL	22.7	1500	N	**39.6**	15	10.8 J	2.7
SELENIUM	2	390	N	0.72	0.67	0.53	0.41 U
SILVER	1	390	N	0.12 U	0.077 U	0.082 U	0.078 U
THALLIUM	21.3 [13]	NA		0.33 U	0.21 U	0.22 U	0.21 U
VANADIUM	57 [12]	390	N	48.1	30.3 J	31.2 J	13.7
ZINC	121	23000	N	78.4	24.5	21.4 J	3.8
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	77	78	83
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-62	SD-63	SD-64	SD-65
SAMPLE ID				SD-62-04	SD-63-04	SD-64-04	SD-65-04
SAMPLE DATE				20081112	20081112	20081112	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				46	46	46	37
BOTTOM DEPTH				50	50	50	41
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	350 U	340 U	660 U	410 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	350 U	340 U	660 U	410 UJ
ACENAPHTHENE	6.7	3400000	N	350 U	340 U	660 U	410 UJ
ACENAPHTHYLENE	5.9	3400000	N[5]	350 U	340 U	660 U	410 UJ
ANTHRACENE	57.2	17000000	N	350 U	340 U	660 U	410 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	350 U	340 U	660 U	410 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	350 U	340 U	660 U	410 U
BENZO(A)ANTHRACENE	108	1500	C	350 U	340 U	660 U	410 UJ
BENZO(A)PYRENE	150	150	C	350 U	340 U	660 U	410 UJ
BENZO(B)FLUORANTHENE	NA	1500	C	350 U	340 U	660 U	410 UJ
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	350 U	340 U	660 U	410 UJ
BENZO(K)FLUORANTHENE	240	15000	C	350 U	340 U	660 U	410 UJ
CHRYSENE	166	150000	C	350 U	340 U	660 U	410 UJ
DIBENZO(A,H)ANTHRACENE	33	150	C	350 U	340 U	660 U	410 UJ
FLUORANTHENE	423	2300000	N	350 U	340 U	660 U	410 UJ
FLUORENE	77.4	2300000	N	350 U	340 U	660 U	410 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	350 U	340 U	660 U	410 UJ
NAPHTHALENE	176	36000	C	350 U	340 U	660 U	410 UJ
PHENANTHRENE	204	1700000	N[6]	350 U	340 U	660 U	410 UJ
PYRENE	195	1700000	N	350 UJ	340 UJ	660 U	410 UJ
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	22 U	21 U	41 U	21 U
AROCLOR-1254	59.8 [7]	1100	N[8]	22 U	21 U	41 U	21 U
AROCLOR-1260	59.8 [7]	2200	C	22 U	21 U	41 U	21 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.13 UL	0.13 UL	0.24 UL	0.12 UJ
ARSENIC	9.8	3.9	C	**9.9**	1.8	**6.8**	**6.8**
BARIUM	130 [12]	15000	N	12.2 J	10.6 J	31.9 J	19.2
BERYLLIUM	NA	160	N	1.6 J	0.73 J	2.1 J	1.7
CADMIUM	0.99	70	N	0.017 J	0.0077 UL	0.17 J	0.0069 U
CHROMIUM	43.4	120000	N[10]	15.8 J	16.2 J	29.4 J	20.9
COBALT	50	23	N	2.9 J	3.3 J	11.7 J	15.5
COPPER	31.6	3100	N	11.7 J	9 J	21.8 J	14.7 J
LEAD	35.8	400		5.2 J	6.6 J	8.8 J	8.1
MERCURY	0.18	23	N[11]	0.011 B	0.034	0.039 B	0.011
MOLYBDENUM	NA	390	N	0.22 J	0.31 J	2.4 J	0.34 B
NICKEL	22.7	1500	N	10.5 J	11.4 J	22.1 J	**38 J**
SELENIUM	2	390	N	0.43 UL	0.63 J	1.3 J	0.38 UL
SILVER	1	390	N	0.083 UL	0.081 UL	0.15 UL	0.073 U
THALLIUM	21.3 [13]	NA		0.23 U	0.22 U	0.41 U	0.2 U
VANADIUM	57 [12]	390	N	22.8 J	27.4 J	31.2 J	36
ZINC	121	23000	N	19 J	19.8 J	72.2 J	76.2 J
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		77	79	41	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		2000	1400	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-66 SD-66-04 20081112 NORMAL SD NORMAL SB 39 43	SD-67 SD-67-04 20081111 NORMAL SD NORMAL SB 46 50	SD-68 SD-68-04 20081112 NORMAL SD NORMAL SB 43 47	SD-70 SD-70-04 20081111 NORMAL SD NORMAL SB 34 38
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	360 U	470 UJ	330 U	420 UJ
2-METHYLNAPHTHALENE	20.2	310000	N	360 U	470 UJ	330 U	420 UJ
ACENAPHTHENE	6.7	3400000	N	360 U	470 UJ	330 U	420 UJ
ACENAPHTHYLENE	5.9	3400000	N[5]	360 U	470 UJ	330 U	420 UJ
ANTHRACENE	57.2	17000000	N	360 U	470 UJ	330 U	420 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	360 U	470 U	330 U	420 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	360 U	470 U	330 U	420 U
BENZO(A)ANTHRACENE	108	1500	C	360 U	470 UJ	330 U	420 UJ
BENZO(A)PYRENE	150	150	C	360 U	470 UJ	330 U	420 UJ
BENZO(B)FLUORANTHENE	NA	1500	C	360 U	470 UJ	330 U	420 UJ
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	360 U	470 UJ	330 U	420 UJ
BENZO(K)FLUORANTHENE	240	15000	C	360 U	470 UJ	330 U	420 UJ
CHRYSENE	166	150000	C	360 U	470 UJ	330 U	420 UJ
DIBENZO(A,H)ANTHRACENE	33	150	C	360 U	470 UJ	330 U	420 UJ
FLUORANTHENE	423	2300000	N	360 U	470 UJ	330 U	420 UJ
FLUORENE	77.4	2300000	N	360 U	470 UJ	330 U	420 UJ
INDENO(1,2,3-CD)PYRENE	17	1500	C	360 U	470 UJ	330 U	420 UJ
NAPHTHALENE	176	36000	C	360 U	470 UJ	330 U	420 UJ
PHENANTHRENE	204	1700000	N[6]	360 U	470 UJ	330 U	420 UJ
PYRENE	195	1700000	N	360 U	470 UJ	330 U	420 UJ
TOTAL PAHS	1610	NA		0 U	0 U	0 U	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	22 U	24 U	21 U	21 U
AROCLOR-1254	59.8 [7]	1100	N[8]	22 U	24 U	21 U	21 U
AROCLOR-1260	59.8 [7]	2200	C	22 U	24 U	21 UJ	21 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.14 UL	0.14 UJ	0.13 UL	0.13 UJ
ARSENIC	9.8	3.9	C	1.5	**4.6**	2.7	1.6
BARIUM	130 [12]	15000	N	9.3 J	25.6	15.6 J	8.1
BERYLLIUM	NA	160	N	0.59 J	5.6	2.4 J	0.55
CADMIUM	0.99	70	N	0.052 B	**1.1**	0.013 B	0.039
CHROMIUM	43.4	120000	N[10]	11.9 J	25.4	15 J	11.8
COBALT	50	23	N	3.8 J	**39.7**	**70.8 J**	6.2
COPPER	31.6	3100	N	5.8 J	28.4 J	12.4 J	8.5 J
LEAD	35.8	400		3.8	13.7	6.5	3.2
MERCURY	0.18	23	N[11]	0.0074 U	0.033	0.012	0.0079
MOLYBDENUM	NA	390	N	0.43	0.2 B	0.051 U	0.31 B
NICKEL	22.7	1500	N	8.8 J	**55.2 J**	**25.3 J**	11.7 J
SELENIUM	2	390	N	0.45 U	0.45 UL	0.78	0.42 UL
SILVER	1	390	N	0.086 U	0.13	0.079 U	0.081 U
THALLIUM	21.3 [13]	NA		0.23 U	0.23 U	0.22 U	0.22 U
VANADIUM	57 [12]	390	N	16.7 J	32.3	23.3 J	18.2
ZINC	121	23000	N	25.1 J	**204 J**	71.7 J	47.5 J
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		74	NA	81	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	4400
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-71	SD-73	SD-75	SD-76
SAMPLE ID				SD-71-04	SD-73-04	SD-75-04	SD-76-04
SAMPLE DATE				20081111	20081111	20081112	20081111
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				42	42	42	46
BOTTOM DEPTH				46	46	46	50
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	430 UJ	660 U	320 U	470 U
2-METHYLNAPHTHALENE	20.2	310000	N	430 UJ	660 U	320 U	470 U
ACENAPHTHENE	6.7	3400000	N	430 UJ	660 U	320 U	**130 J**
ACENAPHTHYLENE	5.9	3400000	N[5]	430 UJ	660 U	320 U	470 U
ANTHRACENE	57.2	17000000	N	430 UJ	660 U	320 U	**110 K**
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	430 U	660 U	320 U	**543**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	430 U	660 U	320 U	0.14
BENZO(A)ANTHRACENE	108	1500	C	430 UJ	660 U	320 U	470 U
BENZO(A)PYRENE	150	150	C	430 UJ	660 U	320 U	470 U
BENZO(B)FLUORANTHENE	NA	1500	C	430 UJ	660 U	320 U	470 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	430 UJ	660 U	320 U	470 U
BENZO(K)FLUORANTHENE	240	15000	C	430 UJ	660 U	320 U	470 U
CHRYSENE	166	150000	C	430 UJ	660 U	320 U	140 J
DIBENZO(A,H)ANTHRACENE	33	150	C	430 UJ	660 U	320 U	470 U
FLUORANTHENE	423	2300000	N	430 UJ	660 U	320 U	320 J
FLUORENE	77.4	2300000	N	430 UJ	660 U	320 U	**180 J**
INDENO(1,2,3-CD)PYRENE	17	1500	C	430 UJ	660 U	320 U	470 U
NAPHTHALENE	176	36000	C	430 UJ	660 U	320 U	470 U
PHENANTHRENE	204	1700000	N[6]	430 UJ	660 U	320 U	**700**
PYRENE	195	1700000	N	430 UJ	660 U	320 U	**440 J**
TOTAL PAHS	1610	NA		0 U	0 U	0 U	**2020**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	22 U	33 U	20 U	24 U
AROCLOR-1254	59.8 [7]	1100	N[8]	22 U	33 U	20 U	24 U
AROCLOR-1260	59.8 [7]	2200	C	22 U	33 U	20 U	**81**
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	**81**
METALS (MG/KG)							
ANTIMONY	2	31	N	0.13 UJ	0.2 UL	0.12 UL	**23.9 L**
ARSENIC	9.8	3.9	C	3.5	**5.2**	0.55	**6.3**
BARIUM	130 [12]	15000	N	16.7	20.6	13.5 J	54.1
BERYLLIUM	NA	160	N	1.2	1.8	0.27 J	1.3
CADMIUM	0.99	70	N	0.0076 U	0.048	0.0072 U	**3.3**
CHROMIUM	43.4	120000	N[10]	15.6	27.5	6 J	**60.9**
COBALT	50	23	N	22.7	10.1	1.4 J	7.5
COPPER	31.6	3100	N	12.6 J	14.8	6.9 J	23.9
LEAD	35.8	400		5.1	7.1	1.7	**61.9**
MERCURY	0.18	23	N[11]	0.014	0.028 B	0.0068 U	0.15
MOLYBDENUM	NA	390	N	0.31 B	1.1	0.14 B	1.6
NICKEL	22.7	1500	N	**38.5 J**	19	2.9 J	16.5
SELENIUM	2	390	N	0.47 J	0.67 UL	0.52	0.47 UL
SILVER	1	390	N	0.081 U	0.13 U	0.1 B	**9.1**
THALLIUM	21.3 [13]	NA		0.22 U	0.35 U	0.21 U	0.24 U
VANADIUM	57 [12]	390	N	33.9	29.8 K	6.4 J	36.6 K
ZINC	121	23000	N	59.3 J	47.1	15.1 J	107
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	50	84	70
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	10000
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]	SD-77 SD-77-04 20081110 ORIG SD NORMAL SB 44 52	SD-77 SD-77-04-AVG 20081110 AVG SD NORMAL SB 44 52	SD-77 SD-77-04-D 20081110 DUP SD NORMAL SB 44 52	SD-79 SD-79-02 20081114 NORMAL SD NORMAL SB 31 35
SEMIVOLATILES (UG/KG)						
1-METHYLNAPHTHALENE	20.2 [4]	220000 C	500 U	510 U	520 U	850 U
2-METHYLNAPHTHALENE	20.2	310000 N	500 U	510 U	520 U	850 U
ACENAPHTHENE	6.7	3400000 N	500 U	510 U	520 U	850 U
ACENAPHTHYLENE	5.9	3400000 N[5]	500 U	510 U	520 U	850 U
ANTHRACENE	57.2	17000000 N	500 U	510 U	520 U	850 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150 C	500 U	510 U	520 U	850 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150 C	500 U	510 U	520 U	850 U
BENZO(A)ANTHRACENE	108	1500 C	500 U	510 U	520 U	850 U
BENZO(A)PYRENE	150	150 C	500 U	510 U	520 U	850 U
BENZO(B)FLUORANTHENE	NA	1500 C	500 U	510 U	520 U	850 U
BENZO(G,H,I)PERYLENE	170	1700000 N[6]	500 U	510 U	520 U	850 U
BENZO(K)FLUORANTHENE	240	15000 C	500 U	510 U	520 U	850 U
CHRYSENE	166	150000 C	500 U	510 U	520 U	850 U
DIBENZO(A,H)ANTHRACENE	33	150 C	500 U	510 U	520 U	850 U
FLUORANTHENE	423	2300000 N	500 U	510 U	520 U	850 U
FLUORENE	77.4	2300000 N	500 U	510 U	520 U	850 U
INDENO(1,2,3-CD)PYRENE	17	1500 C	500 U	510 U	520 U	850 U
NAPHTHALENE	176	36000 C	500 U	510 U	520 U	850 U
PHENANTHRENE	204	1700000 N[6]	500 U	510 U	520 U	850 U
PYRENE	195	1700000 N	500 U	510 U	520 U	850 U
TOTAL PAHS	1610	NA	0 U	0 U	0 U	0 U
PCBS (UG/KG)						
AROCLOR-1248	59.8 [7]	2200 C	25 U	25.5 U	26 U	42 U
AROCLOR-1254	59.8 [7]	1100 N[8]	25 U	25.5 U	26 U	42 U
AROCLOR-1260	59.8 [7]	2200 C	25 U	25.5 U	26 U	42 U
TOTAL AROCLOR	59.8	2200 C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)						
ANTIMONY	2	31 N	0.15 UL	0.15 UL	0.15 UL	0.26 UL
ARSENIC	9.8	3.9 C	3.9	**3.95**	**4**	**7.6**
BARIUM	130 [12]	15000 N	13.8	13.6	13.4	34.6
BERYLLIUM	NA	160 N	1.2	1.2	1.2	1.6
CADMIUM	0.99	70 N	0.0086 U	0.0088 U	0.009 U	0.016 U
CHROMIUM	43.4	120000 N[10]	20.7	21.95	23.2	31.8
COBALT	50	23 N	6.9	6.8	6.7	14.8
COPPER	31.6	3100 N	16.1	16.4	16.7	16.2
LEAD	35.8	400	6.7	6.8	6.9	13
MERCURY	0.18	23 N[11]	0.011 B	0.0135 B	0.016 B	0.031
MOLYBDENUM	NA	390 N	1.4	1.35	1.3	0.83 B
NICKEL	22.7	1500 N	12.5	12.65	12.8	**23.7**
SELENIUM	2	390 N	0.48 UL	0.49 UL	0.5 UL	0.86 U
SILVER	1	390 N	0.092 U	0.094 U	0.096 U	0.17 U
THALLIUM	21.3 [13]	NA	0.25 U	0.255 U	0.26 U	0.45 U
VANADIUM	57 [12]	390 N	37.2 K	37.8 K	38.4 K	40
ZINC	121	23000 N	27.5	27.35	27.2	69.7
MISCELLANEOUS PARAMETERS (%)						
PERCENT SOLIDS	NA	NA	66	65	64	NA
MISCELLANEOUS PARAMETERS (MG/KG)						
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)						
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil[2][3]		SD-83	SD-85	SD-86	SD-87
SAMPLE ID				SD-83-04	SD-85-04	SD-86-04	SD-87-04
SAMPLE DATE				20100820	20100819	20100818	20100818
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				48	48	48	48
BOTTOM DEPTH				48	48	48	48
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	0.47 U	1.6 U	**8.2 J**	**16 J**
ACENAPHTHYLENE	5.9	3400000	N[5]	0.56 U	1.9 U	3.9 U	**15 J**
ANTHRACENE	57.2	17000000	N	0.9 J	1.6 U	4.8 J	37
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	0.49 U	1.7 U	41.9	**267**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	0.49 U	1.7 U	39.9	**267**
BENZO(A)ANTHRACENE	108	1500	C	0.61 U	2.1 U	24 J	**160**
BENZO(A)PYRENE	150	150	C	0.49 U	1.7 U	25 J	**160**
BENZO(B)FLUORANTHENE	NA	1500	C	0.76 U	2.6 U	41	250
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	0.48 U	1.6 U	71	130
BENZO(K)FLUORANTHENE	240	15000	C	0.98 U	3.3 U	6.9 U	3.3 U
CHRYSENE	166	150000	C	0.58 U	2 U	26 J	160
DIBENZO(A,H)ANTHRACENE	33	150	C	0.54 U	1.8 U	3.8 U	**54**
FLUORANTHENE	423	2300000	N	3.1 J	1.8 U	33 J	240
FLUORENE	77.4	2300000	N	1.2 J	2.2 U	5.6 J	13 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	0.5 U	1.7 U	**84**	**120**
NAPHTHALENE	176	36000	C	0.42 U	1.4 U	2.9 U	13 J
PHENANTHRENE	204	1700000	N[6]	5	5.8 J	21 J	120
PYRENE	195	1700000	N	3.5 J	1.7 U	48	**250**
TOTAL PAHS	1610	NA		13.7	5.8	391.6	**1738**
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	1.1 U	1.3 U	1.6 U	2 U
AROCLOR-1254	59.8 [7]	1100	N[8]	1.7 U	2 U	2.4 U	2.9 U
AROCLOR-1260	59.8 [7]	2200	C	1.7 U	2 U	2.4 U	2.9 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.14 B	0.042 B	0.16 J	0.27 L
ARSENIC	9.8	3.9	C	2 L	2 L	3.8	**5.1**
BARIUM	130 [12]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	0.72	0.94	1.6 J	2.1
CADMIUM	0.99	70	N	0.11 L	0.21 L	**2.9**	**11.4**
CHROMIUM	43.4	120000	N[10]	14.8	9.8	**52.4 K**	**114**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	12.2 L	7.1 L	18.6	**33.1**
LEAD	35.8	400		9.9	3.8	14	35.6 K
MERCURY	0.18	23	N[11]	0.045	0.009 U	0.05	**0.25**
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	10.8 L	9.3 L	**27.1**	**29.1**
SELENIUM	2	390	N	0.45 L	0.45 L	0.75	1.1
SILVER	1	390	N	0.036 J	0.029 J	0.068 J	0.85
THALLIUM	21.3 [13]	NA		0.11	0.064 J	0.16	0.26
VANADIUM	57 [12]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	29.3 L	29.2 L	71.4	**139**
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		9340	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	0.26 U	NA	0.38 U
CADMIUM	NA	NA		NA	0.00062 J	NA	0.035
CHROMIUM	NA	NA		NA	0.0057 J	NA	0.52
COPPER	NA	NA		NA	0.013 J	NA	0.26
LEAD	NA	NA		NA	0.0071 J	NA	0.2
NICKEL	NA	NA		NA	0.03 J	NA	0.13
SILVER	NA	NA		NA	0.00022 U	NA	0.0022 J
ZINC	NA	NA		NA	0.24 J	NA	1.2

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil[2][3]		SD-88	SD-89	SD-90	SD-93
SAMPLE ID				SD-88-04	SD-89-04	SD-90-04	SD-93-04
SAMPLE DATE				20100819	20100819	20100817	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				48	48	48	48
BOTTOM DEPTH				48	48	48	48
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	6.3 U	3.3 U	**10 J**	**8.2 J**
ACENAPHTHYLENE	5.9	3400000	N[5]	**21 J**	**18 J**	**27 J**	**16 J**
ANTHRACENE	57.2	17000000	N	13 J	29 J	26 J	25
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	57.6	87.1	139	**160**
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	53.8	85.2	138	**160**
BENZO(A)ANTHRACENE	108	1500	C	47 J	72	73	73
BENZO(A)PYRENE	150	150	C	30 J	60	63 J	77
BENZO(B)FLUORANTHENE	NA	1500	C	41 J	75	93 J	140
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	6.5 U	99	69 J	99
BENZO(K)FLUORANTHENE	240	15000	C	13 U	49	5.9 UJ	4.5 U
CHRYSENE	166	150000	C	37 J	58	82	100
DIBENZO(A,H)ANTHRACENE	33	150	C	7.3 U	3.8 U	**51 J**	**52**
FLUORANTHENE	423	2300000	N	79	110	160	140
FLUORENE	77.4	2300000	N	8.6 U	32 J	24 J	7.6 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**150**	**100**	**78 J**	**91**
NAPHTHALENE	176	36000	C	12 J	23 J	8.5 J	14 J
PHENANTHRENE	204	1700000	N[6]	56 J	84	56	75
PYRENE	195	1700000	N	53 J	130	120	170
TOTAL PAHS	1610	NA		539	939	940.5	1087.8
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	1.6 U	1.6 U	1.4 U	1.3 U
AROCLOR-1254	59.8 [7]	1100	N[8]	2.3 U	2.4 U	2.1 U	2 U
AROCLOR-1260	59.8 [7]	2200	C	2.3 U	15 J	2.1 U	2 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	15	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.45 L	0.3 L	0.25 J	0.33 L
ARSENIC	9.8	3.9	C	**35.9**	**5.3**	3.3	3.3
BARIUM	130 [12]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	2.5	1.9	1.5	1.9
CADMIUM	0.99	70	N	**4.9 L**	**4.2 L**	**1.1**	**4.5**
CHROMIUM	43.4	120000	N[10]	**49.5**	**102**	**44.7**	**113**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**31.7 L**	30.5 L	15.9	22.5
LEAD	35.8	400		31	33.9	13.7 J	29.8 K
MERCURY	0.18	23	N[11]	0.057	0.12	0.099	0.16
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**103 L**	**24.6 L**	15.4	20.1
SELENIUM	2	390	N	2 L	1.2 L	0.89	0.92
SILVER	1	390	N	0.56	**1.9**	**1.7**	**2.4**
THALLIUM	21.3 [13]	NA		20.3	0.16 K	0.12 J	0.11
VANADIUM	57 [12]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**4370**	102	51.2	114
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		0.31 U	0.32 U	0.27 U	NA
CADMIUM	NA	NA		0.012	0.025	0.0068	NA
CHROMIUM	NA	NA		0.19	0.48	0.18	NA
COPPER	NA	NA		0.11	0.11	0.064	NA
LEAD	NA	NA		0.065	0.087	0.033	NA
NICKEL	NA	NA		0.052	0.042	0.024 J	NA
SILVER	NA	NA		0.0019 J	0.0038	0.0055	NA
ZINC	NA	NA		0.48	0.7	0.42	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-94	SD-95	SD-96	SD-97
SAMPLE ID				SD-94-04	SD-95-04	SD-96-04	SD-97-04
SAMPLE DATE				20100817	20100817	20100819	20100817
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				SD	SD	SD	SD
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				SB	SB	SB	SB
TOP DEPTH				48	48	48	48
BOTTOM DEPTH				48	48	48	48
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	2.7 U	**16 J**	**27**	3.9 U
ACENAPHTHYLENE	5.9	3400000	N[5]	3.2 U	**26 J**	**29**	4.7 U
ANTHRACENE	57.2	17000000	N	2.7 U	36	41	4 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	2.8 U	**205**	144	4.1 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	2.8 U	**205**	143	4.1 U
BENZO(A)ANTHRACENE	108	1500	C	3.5 U	92	81	5.1 U
BENZO(A)PYRENE	150	150	C	2.8 U	95	81	4.1 U
BENZO(B)FLUORANTHENE	NA	1500	C	4.4 U	170	150	6.4 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	2.8 U	120	81	4.1 U
BENZO(K)FLUORANTHENE	240	15000	C	5.7 U	7.1 U	2.1 U	8.2 U
CHRYSENE	166	150000	C	3.3 U	120	92	4.9 U
DIBENZO(A,H)ANTHRACENE	33	150	C	3.1 U	**71**	32	4.5 U
FLUORANTHENE	423	2300000	N	3 U	170	210	4.4 U
FLUORENE	77.4	2300000	N	3.7 U	40	24	5.4 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	2.9 U	**130**	**73**	4.2 U
NAPHTHALENE	176	36000	C	2.4 U	30 J	35	3.5 U
PHENANTHRENE	204	1700000	N[6]	4.4 U	120	94	6.5 U
PYRENE	195	1700000	N	2.8 U	190	**210**	4.1 U
TOTAL PAHS	1610	NA		0 U	1426	1260	0 U
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	1.3 U	1.7 U	1.2 U	1.9 U
AROCLOR-1254	59.8 [7]	1100	N[8]	2 U	2.5 U	1.9 U	2.9 U
AROCLOR-1260	59.8 [7]	2200	C	2 U	12 J	11 J	2.9 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	12	11	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.2 J	0.52 L	0.53 J	0.16 J
ARSENIC	9.8	3.9	C	**5.7**	**5.5**	**8.2 L**	**6.5**
BARIUM	130 [12]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	3.4	2.1	2 L	1.9
CADMIUM	0.99	70	N	0.32	**9.3**	**4.1 J**	0.35
CHROMIUM	43.4	120000	N[10]	27.7	**194**	**98.9 L**	34.1
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	18.9	**32.9**	**52.3 L**	17.5
LEAD	35.8	400		5.7 J	**43.6 K**	24	13.7 J
MERCURY	0.18	23	N[11]	0.0091 U	**0.35**	0.098	0.036 J
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	21.8	**26.4**	**24 L**	22.6
SELENIUM	2	390	N	0.97	1.3	0.94 L	1.1
SILVER	1	390	N	0.039 J	**4.7**	**2.3 L**	0.076 J
THALLIUM	21.3 [13]	NA		0.077 J	0.18	0.11 K	0.16 J
VANADIUM	57 [12]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	56.3	**162**	89.1 L	76.7
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-98 SD-98-04 20100819 NORMAL SD NORMAL SB 48 48	SD-99 SD-99-04 20100819 NORMAL SD NORMAL SB 48 48	SD-100 SD-100-04 20100819 NORMAL SD NORMAL SB 48 48	SD-101 SD-101-04 20100818 NORMAL SD NORMAL SB 48 48
SEMIVOLATILES (UG/KG)								
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	**43**	3.8 U	5.1 U	2.2 J
ACENAPHTHYLENE	5.9	3400000	N[5]	**58**	4.5 U	6 U	2.4 J
ANTHRACENE	57.2	17000000	N	**80**	3.9 U	5.2 U	3.9 J
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**319**	4 U	5.3 U	9.8
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**319**	4 U	5.3 U	9.2
BENZO(A)ANTHRACENE	108	1500	C	**190**	5 U	6.6 U	7.2 J
BENZO(A)PYRENE	150	150	C	**170**	4 U	5.3 U	5 J
BENZO(B)FLUORANTHENE	NA	1500	C	310	6.2 U	8.3 U	8.5 J
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	170	3.9 U	5.2 U	22
BENZO(K)FLUORANTHENE	240	15000	C	5.5 U	8 U	11 U	2.3 U
CHRYSENE	166	150000	C	**190**	4.7 U	6.3 U	7.3 J
DIBENZO(A,H)ANTHRACENE	33	150	C	**83**	4.4 U	5.9 U	1.3 U
FLUORANTHENE	423	2300000	N	**430**	4.2 J	5.6 U	12
FLUORENE	77.4	2300000	N	42	5.2 U	6.9 U	3.2 J
INDENO(1,2,3-CD)PYRENE	17	1500	C	**160**	4.1 U	5.4 U	**26**
NAPHTHALENE	176	36000	C	68	3.4 U	4.5 U	4.7 J
PHENANTHRENE	204	1700000	N[6]	180	6.7 J	8.4 U	10 J
PYRENE	195	1700000	N	**370**	4 U	5.3 U	14
TOTAL PAHS	1610	NA		**2544**	10.9	0 U	128.4
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	1.3 U	1.9 U	1.2 U	1.4 U
AROCLOR-1254	59.8 [7]	1100	N[8]	2 U	2.8 U	1.8 U	2.1 U
AROCLOR-1260	59.8 [7]	2200	C	27	2.8 U	1.8 U	2.1 U
TOTAL AROCLOR	59.8	2200	C[9]	27	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.45 J	0.069 B	0.027 B	0.16 J
ARSENIC	9.8	3.9	C	**4.2 L**	**5.2**	2.2 L	3.7
BARIUM	130 [12]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	1.3 L	1.7	0.51 L	0.95
CADMIUM	0.99	70	N	**9 J**	0.34 L	0.11 J	**1.9**
CHROMIUM	43.4	120000	N[10]	**173 L**	25.8	10.2 L	**56.7**
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	25.3 L	17.6 L	5.8 L	13.3
LEAD	35.8	400		**36.6**	11.5	4.4	19.8 K
MERCURY	0.18	23	N[11]	**0.39**	0.031 J	0.0087 U	0.055
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	20.1 L	20.3 L	7.4 L	12.1
SELENIUM	2	390	N	0.92 L	1 L	0.42 L	0.64
SILVER	1	390	N	**2.9 L**	0.061 J	0.021 J	0.41
THALLIUM	21.3 [13]	NA		0.12 K	0.16 K	0.065 K	0.094
VANADIUM	57 [12]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**124 L**	70.9	26.4 L	57.7
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	5.7	NA	0.33 J
CADMIUM	NA	NA		NA	0.0014 J	NA	0.012
CHROMIUM	NA	NA		NA	0.038	NA	0.29
COPPER	NA	NA		NA	0.042	NA	0.053
LEAD	NA	NA		NA	0.019	NA	0.057
NICKEL	NA	NA		NA	0.049	NA	0.035
SILVER	NA	NA		NA	0.00032 U	NA	0.001 J
ZINC	NA	NA		NA	0.49	NA	0.46

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-102 SD-102-04 20100818 ORIG SD NORMAL SB 48 48	SD-102 SD-102-04-AVG 20100818 AVG SD NORMAL SB 48 48	SD-102 SD-102-04-D 20100818 DUP SD NORMAL SB 48 48	SD-104 SD-104-04 20100818 NORMAL SD NORMAL SB 48 48
SEMIVOLATILES (UG/KG)							
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA	NA	NA
ACENAPHTHENE	6.7	3400000	N	4.3 U	4.3 U	4.3 U	1.5 U
ACENAPHTHYLENE	5.9	3400000	N[5]	**7.9 J**	5.225 J	5.1 U	1.7 U
ANTHRACENE	57.2	17000000	N	9 J	9.5 J	10 J	1.5 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	40.0	30.5	21.0	1.5 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	37.4	28.0	18.3	1.5 U
BENZO(A)ANTHRACENE	108	1500	C	18 J	21 J	24 J	1.9 U
BENZO(A)PYRENE	150	150	C	21 J	17.5 J	14 J	1.5 U
BENZO(B)FLUORANTHENE	NA	1500	C	46	31.5 J	17 J	2.4 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	84	43.125	4.5 U	1.5 U
BENZO(K)FLUORANTHENE	240	15000	C	9 U	10.25 J	16 J	3.1 U
CHRYSENE	166	150000	C	32 J	21.5 J	11 J	1.8 U
DIBENZO(A,H)ANTHRACENE	33	150	C	5 U	5 U	5 U	1.7 U
FLUORANTHENE	423	2300000	N	40 J	33.5 J	27 J	1.6 U
FLUORENE	77.4	2300000	N	8.4 J	5.675 J	5.9 U	2 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**100 J**	**51.15 J**	4.6 UJ	1.6 U
NAPHTHALENE	176	36000	C	21 J	16.5 J	12 J	1.3 U
PHENANTHRENE	204	1700000	N[6]	38 J	30 J	22 J	2.4 J
PYRENE	195	1700000	N	41 J	34 J	27 J	1.5 U
TOTAL PAHS	1610	NA		466.3	330.425	180	2.4
PCBS (UG/KG)							
AROCLOR-1248	59.8 [7]	2200	C	2.1 U	2.1 U	2.1 U	1.8 U
AROCLOR-1254	59.8 [7]	1100	N[8]	3.2 U	3.2 U	3.2 U	2.7 U
AROCLOR-1260	59.8 [7]	2200	C	3.2 U	3.2 U	3.2 U	2.7 U
TOTAL AROCLOR	59.8	2200	C[9]	0 U	0 U	0 U	0 U
METALS (MG/KG)							
ANTIMONY	2	31	N	0.45 J	0.37 L	0.29 L	0.074 B
ARSENIC	9.8	3.9	C	**7.8**	**7.7**	**7.6**	**5.4**
BARIUM	130 [12]	15000	N	NA	NA	NA	NA
BERYLLIUM	NA	160	N	2 J	2 J	2	1.4 J
CADMIUM	0.99	70	N	**10**	**8.35**	**6.7**	0.32
CHROMIUM	43.4	120000	N[10]	**209 K**	**183.5 K**	**158**	27.7 K
COBALT	50	23	N	NA	NA	NA	NA
COPPER	31.6	3100	N	**32.8**	30.85	28.9	13.7
LEAD	35.8	400		**56.8**	**50.1 K**	**43.4 K**	11.6
MERCURY	0.18	23	N[11]	0.18	**0.195**	**0.21**	0.032 J
MOLYBDENUM	NA	390	N	NA	NA	NA	NA
NICKEL	22.7	1500	N	**30.4**	**29.5**	**28.6**	20
SELENIUM	2	390	N	1.4	1.35	1.3	0.89
SILVER	1	390	N	**2.3 J**	**2 J**	**1.7**	0.044 J
THALLIUM	21.3 [13]	NA		0.24	0.225	0.21	0.15
VANADIUM	57 [12]	390	N	NA	NA	NA	NA
ZINC	121	23000	N	**176**	**163.5**	**151**	67.7
MISCELLANEOUS PARAMETERS (%)							
PERCENT SOLIDS	NA	NA		NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)							
TOTAL ORGANIC CARBON	NA	NA		NA	NA	NA	NA
AVS/SEM (UMOLES/G)							
ACID VOLATILE SULFIDE	NA	NA		NA	NA	NA	NA
CADMIUM	NA	NA		NA	NA	NA	NA
CHROMIUM	NA	NA		NA	NA	NA	NA
COPPER	NA	NA		NA	NA	NA	NA
LEAD	NA	NA		NA	NA	NA	NA
NICKEL	NA	NA		NA	NA	NA	NA
SILVER	NA	NA		NA	NA	NA	NA
ZINC	NA	NA		NA	NA	NA	NA

Table 4-8
Detected Concentrations Table for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][3]	Adjusted Regional Screening Level (RSL) for Residential Soil [2][3]		SD-105 SD-105-04 20100818 NORMAL SD NORMAL SB 48 48	SD-106 SD-106-04 20100818 NORMAL SD NORMAL SB 48 48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	20.2 [4]	220000	C	NA	NA
2-METHYLNAPHTHALENE	20.2	310000	N	NA	NA
ACENAPHTHENE	6.7	3400000	N	**16 J**	9 U
ACENAPHTHYLENE	5.9	3400000	N[5]	**26**	11 U
ANTHRACENE	57.2	17000000	N	**58**	9.1 U
BAP EQUIVALENT-1/2 NON-DETECTS	NA	150	C	**290**	9.3 U
BAP EQUIVALENT-POSITIVE RESULTS	NA	150	C	**290**	9.3 U
BENZO(A)ANTHRACENE	108	1500	C	**160**	12 U
BENZO(A)PYRENE	150	150	C	**160**	9.3 U
BENZO(B)FLUORANTHENE	NA	1500	C	290	15 U
BENZO(G,H,I)PERYLENE	170	1700000	N[6]	170	9.3 U
BENZO(K)FLUORANTHENE	240	15000	C	3.9 U	19 U
CHRYSENE	166	150000	C	**180**	11 U
DIBENZO(A,H)ANTHRACENE	33	150	C	**70**	10 U
FLUORANTHENE	423	2300000	N	270	10 U
FLUORENE	77.4	2300000	N	30	12 U
INDENO(1,2,3-CD)PYRENE	17	1500	C	**150**	9.6 U
NAPHTHALENE	176	36000	C	83	8 U
PHENANTHRENE	204	1700000	N[6]	190	15 U
PYRENE	195	1700000	N	**370**	9.4 U
TOTAL PAHS	1610	NA		**2223**	0 U
PCBS (UG/KG)					
AROCLOR-1248	59.8 [7]	2200	C	2.3 U	2.2 U
AROCLOR-1254	59.8 [7]	1100	N[8]	3.4 U	3.3 U
AROCLOR-1260	59.8 [7]	2200	C	**120**	3.3 U
TOTAL AROCLOR	59.8	2200	C[9]	**120**	0 U
METALS (MG/KG)					
ANTIMONY	2	31	N	0.96 J	0.075 B
ARSENIC	9.8	3.9	C	**8.3**	**6.1 L**
BARIUM	130 [12]	15000	N	NA	NA
BERYLLIUM	NA	160	N	1.9 J	1.6 L
CADMIUM	0.99	70	N	**33.6**	0.33 J
CHROMIUM	43.4	120000	N[10]	**597 K**	31.7 L
COBALT	50	23	N	NA	NA
COPPER	31.6	3100	N	**84.1**	15.8 L
LEAD	35.8	400		**163**	15
MERCURY	0.18	23	N[11]	**1.5**	0.034 J
MOLYBDENUM	NA	390	N	NA	NA
NICKEL	22.7	1500	N	**47.5**	**24.8 L**
SELENIUM	2	390	N	**2.1**	1.1 L
SILVER	1	390	N	**8.9 J**	0.062 J
THALLIUM	21.3 [13]	NA		0.3	0.2 K
VANADIUM	57 [12]	390	N	NA	NA
ZINC	121	23000	N	**436**	88 L
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA		NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA		NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA		NA	NA
CADMIUM	NA	NA		NA	NA
CHROMIUM	NA	NA		NA	NA
COPPER	NA	NA		NA	NA
LEAD	NA	NA		NA	NA
NICKEL	NA	NA		NA	NA
SILVER	NA	NA		NA	NA
ZINC	NA	NA		NA	NA

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).
2 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.
3 - Concentrations exceeding the ESV are shaded black with white font. Concentrations exceeding the adjusted RSL for residential soil are shaded blue with black font. Concentrations exceeding both the ESV and the RSL are shaded red with white font.
4 - Value for 2-methylnaphthalene used as a surrogate for 1-methylnaphthalene.
5 - The value for acenapthene is used as a surrogate for acenaphthylene.
6 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
7 - Value for Total PCBs used as a surrogate for Aroclor-1248, Aroclor-1254 and Aroclor-1260.
8 - One tenth the noncarcinogenic value is less than the carcinogenic value; the noncarcinogenic value is presented.
9 - The value is for high risk PCBs.
10 - The value is for trivalent chromium.
11 - The value is for mercuric chloride.
12 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
13 - Value is for marine sediment.

Definitions:
B = Blank contamination
C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available
R = Rejected
SD = Sediment
SB = Subsurface sediment
U = Non-detected

Table 4-9
Occurrence and Distribution of Chemicals - Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV	Adjusted Regional Screening Level (RSL) For Residential Soil[5]	# Detects Greater Than Adjusted RSL For Residential Soil
Semivolatile Organics (ug/kg)												
ACENAPHTHENE	10/51	2.2 J	130 J	SD-76	0.47	870	27.7	160	6.7	9	3400000 N	0
ACENAPHTHYLENE	11/51	2.4 J	58	SD-98	0.56	870	22.1	164	5.9	9	3400000 N[6]	0
ANTHRACENE	14/51	0.9 J	110 K	SD-76	1.5	870	33.9	164	57.2	3	17000000 N	0
BAP EQUIVALENT-1/2 NON-DETECTS	15/51	9.8	810	SD-50	0.49	870	255	217	NA	0	150 C	8
BAP EQUIVALENT-POSITIVE RESULTS	15/51	0.090	319	SD-98	0.49	870	117	176	NA	0	150 C	5
BENZO(A)ANTHRACENE	12/51	7.2 J	190	SD-98	0.61	870	83.4	179	108	3	1500 C	0
BENZO(A)PYRENE	12/51	5 J	170	SD-98	0.49	870	78.6	178	150	3	150 C	3
BENZO(B)FLUORANTHENE	13/51	8.5 J	310	SD-98	0.76	870	135	187	NA	0	1500 C	0
BENZO(G,H,I)PERYLENE	11/51	22	170	SD-98, SD-105	0.48	870	97.6	180	170	0	1700000 N[7]	0
BENZO(K)FLUORANTHENE	3/51	10.25 J	200 J	SD-50	0.98	870	86.4	158	240	0	15000 C	0
CHRYSENE	15/51	7.3 J	220 J	SD-50	0.58	870	102	172	166	3	150000 C	0
DIBENZO(A,H)ANTHRACENE	7/51	32	83	SD-98	0.54	870	59.0	168	33	6	150 C	0
FLUORANTHENE	18/51	3.1 J	430	SD-98	1.6	870	157	191	423	1	2300000 N	0
FLUORENE	13/51	1.2 J	180 J	SD-76	2	870	31.4	163	77.4	1	2300000 N	0
INDENO(1,2,3-CD)PYRENE	12/51	26	160	SD-98	0.5	870	101	183	17	12	1500 C	0
NAPHTHALENE	11/51	4.7 J	83	SD-105	0.42	870	28.0	165	176	0	36000 C	0
PHENANTHRENE	19/51	2.4 J	700	SD-76	4.4	870	110	183	204	1	1700000 N[7]	0
PYRENE	16/51	3.5 J	480 J	SD-50	1.5	870	191	202	195	6	1700000 N	0
TOTAL PAHS	20/51	2.4	2544	SD-98	0	0	894	351	1610	4	NA	0
PCBs (ug/kg)												
AROCLOR-1260	6/51	11 J	120	SD-105	1.7	44	44.3	13.8	59.8 [8]	2	2200 C	0
TOTAL AROCLOR	6/51	11	120	SD-105	0	0	44.3	5.2	59.8	2	2200 C[9]	0
Metals (mg/kg)												
ANTIMONY	16/51	0.16 J	23.9 L	SD-76	0.027	0.27	1.8	0.63	2	1	31 N	0
ARSENIC	50/51	0.55	35.9	SD-88	0.75	0.75	5.3	5.2	9.8	2	3.9 C	28
BARIUM	31/31	4.4	54.1	SD-76	--	--	22.2	22.2	130 [12]	0	15000 N	0
BERYLLIUM	51/51	0.17	5.6	SD-67	--	--	1.7	1.7	NA	0	160 N	0
CADMIUM	35/51	0.017 J	33.6	SD-105	0.0069	0.14	3.5	2.4	0.99	17	70 N	0
CHROMIUM	51/51	6 J	597 K	SD-105	--	--	59.7	59.7	43.4	16	120000 N[10]	0
COBALT	31/31	0.76	70.8 J	SD-68	--	--	12.2	12.2	50	1	23 N	2
COPPER	51/51	1.6	84.1	SD-105	--	--	18.9	18.9	31.6	7	3100 N	0
LEAD	51/51	1.5	163	SD-105	--	--	18.9	18.9	35.8	7	400	0
MERCURY	35/51	0.0079	1.5	SD-105	0.0068	0.057	0.13	0.10	0.18	7	23 N[11]	0
MOLYBDENUM	22/31	0.052	2.4 J	SD-64	0.051	1	1.0	0.73	NA	0	390 N	0
NICKEL	51/51	2.7	103 L	SD-88	--	--	21.7	21.7	22.7	18	1500 N	0
SELENIUM	40/51	0.42 L	2.1	SD-105	0.37	0.86	1.0	0.80	2	1	390 N	0
SILVER	30/51	0.021 J	9.1	SD-76	0.072	0.17	1.5	0.91	1	12	390 N	0
THALLIUM	20/51	0.064 J	20.3	SD-88	0.2	0.46	1.2	0.54	21.3 [13]	0	NA	0
VANADIUM	31/31	6.4 J	48.1	SD-58	--	--	30.0	30.0	57 [12]	0	390 N	0
ZINC	51/51	3.8	4370	SD-88	--	--	159	159	121	9	23000 N	0
Miscellaneous Parameters (%)												
PERCENT SOLIDS	23/23	38	84	SD-48, SD-75	--	--	64.9	64.9	NA	0	NA	0
Miscellaneous Parameters (mg/kg)												
TOTAL ORGANIC CARBON	8/8	1400	30000	SD-44	--	--	11393	11393	NA	0	NA	0
AVS/SEM (umoles/g)												
ACID VOLATILE SULFIDE	2/7	0.33 J	5.7	SD-99	0.26	0.38	3.0	0.97	NA	0	NA	0
CADMIUM	7/7	0.0006 J	0.035	SD-87	--	--	0.013	0.013	NA	0	NA	0
CHROMIUM	7/7	0.0057 J	0.52	SD-87	--	--	0.24	0.24	NA	0	NA	0
COPPER	7/7	0.013 J	0.26	SD-87	--	--	0.093	0.093	NA	0	NA	0
LEAD	7/7	0.0071 J	0.2	SD-87	--	--	0.067	0.067	NA	0	NA	0
NICKEL	7/7	0.024 J	0.13	SD-87	--	--	0.052	0.052	NA	0	NA	0
SILVER	5/7	0.001 J	0.0055	SD-90	0.00022	0.00032	0.0029	0.0021	NA	0	NA	0
ZINC	7/7	0.24 J	1.2	SD-87	--	--	0.57	0.57	NA	0	NA	0

Notes:

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection.

2 - Average of positive analytical results only.

3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater sediment (USEPA, August 2006).

5 - Screening criteria for sediment are based on USEPA Regional Screening Levels (RSLs) for residential soil (November, 2010). To account for the anticipated reduced exposure to sediment, the screening criteria presented in the table for sediment are 10 times those typically used for soil (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the sediment are set at 10 times the RSL for residential soil. The screening criteria for non-carcinogens in the sediment are set equal to the RSL for residential soil.

6 - The value for acenapthene is used as a surrogate for acenaphthylene.

7 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
8 - Value for Total PCBs used as a surrogate for Aroclor-1260.
9 - The value is for high risk PCBs.
10 - The value is for trivalent chromium.
11 - The value is for mercuric chloride.
12 - NOAA Quick Reference Tables (Buchman, 2008); value is for marine sediment.
13 - Value is for marine sediment.

Definitions:
C = Carcinogenic
J = Estimated
K = Biased high
L = Biased low
N = Non-carcinogenic
NA = Not applicable or not available

Associated Samples:

SD-100-04	SD-49-04	SD-64-04	SD-85-04
SD-101-04	SD-50-04	SD-65-04	SD-86-04
SD-102-04	SD-51-04	SD-66-04	SD-87-04
SD-102-04-D	SD-53-04	SD-67-04	SD-88-04
SD-104-04	SD-54-04	SD-68-04	SD-89-04
SD-105-04	SD-56-04	SD-70-04	SD-90-04
SD-106-04	SD-56-04-D	SD-71-04	SD-93-04
SD-43-04	SD-57-04	SD-73-04	SD-94-04
SD-44-04	SD-58-04	SD-75-04	SD-95-04
SD-45-04	SD-59-04	SD-76-04	SD-96-04
SD-46-04	SD-60-04	SD-77-04	SD-97-04
SD-47-04	SD-61-04	SD-77-04-D	SD-98-04
SD-47-04-D	SD-62-04	SD-79-02	SD-99-04
SD-48-04	SD-63-04	SD-83-04	

Table 4-10
Regional Concentrations of PCBs Detected in Soil and Sediment Reported in Literature
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location	PCBs[1]	Source
Mid-Atlantic		Paul et al. (2002)
Schuykill River, PA	<100-2400	Lyman et al. (1987)[3]
Chesapeake/ Delaware Bays	1.4-679	Gottholm et al. (1994)
Upper Chesapeake Bay	1-450	NOAA (1991)[3]
Middle Chesapeake Bay	1-100	NOAA (1991)[3]
Lower Chesapeake Bay	7-96	NOAA (1991)[3]
Baltimore Harbor	4-80,000[2]	Lyman et al. (1987)[3]
Patapsco River	32.5-152	McGee et al. (1999)[4]
Bear Creek	8.2-326	
Curtis Creek	188-551	
Inner Harbor	51.5-2148	
Back River	177-303	
Sparrow Point Shipyard in Baltimore Harbor/ Patapsco River	22.6-202	Kodish (2007)
Washington DC	68-2203	Wade, et al. (1994)

Notes:
Units: µg/kg
Blank cell: No value available

Footnotes:
1 - Value of 1508 µg/kg calculated for 95% UCL using the maximum concentration from each location.
2 - Maximum value not included in the 95% UCL calculation.
3 - Values obtained from Wade et al (1994).
4 - Sectioned into separate areas by reviewer based on sampling location map.

Acronyms:
COPC = Chemical of Potential Concern
NOAA = National Oceanic and Atmospheric Administration
UCL = Upper Confidence Limit

References:

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Lyman, W.J., et al. 1987. An overview of sediment quality in the United States, final report. EPA-905/9-88-002. USEPA, Office of Water Regulations and Standards, Washington D.C.

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Table 4-11
Detected Concentrations Table for Ex-Situ Pore Water, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION CORRESPONDING SEDIMENT LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]		USEPA Maximum Contaminant Level (MCL)[4][5]	PW-01 SD-85 PW-01_0-6 20100907 NORMAL PW NORMAL NA 0 6	PW-02 SD-87 PW-02_0-6 20100902 NORMAL PW NORMAL NA 0 6	PW-03 SD-88 PW-03_0-6 20100907 NORMAL PW NORMAL NA 0 6	PW-04 SD-89 PW-04_0-6 20100908 NORMAL PW NORMAL NA 0 6	PW-05 SD-90 PW-05_0-6 20100909 NORMAL PW NORMAL NA 0 6	PW-06 SD-99 PW-06_0-6 20100903 NORMAL PW NORMAL NA 0 6	PW-07 SD-101 PW-07_0-6 20100903 NORMAL PW NORMAL NA 0 6
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)[10]											
ACENAPHTHENE	5.8	2,200	N	NA	NA	NA	0.11 J	0.036 UJ	0.17 J	NA	NA
ANTHRACENE	0.012	11,000	N	NA	NA	NA	**0.052 J**	0.038 UJ	0.038 UJ	NA	NA
BENZO(A)ANTHRACENE	0.018	0.29	C	NA	NA	NA	0.037 UJ	0.037 UJ	0.037 UJ	NA	NA
BENZO(A)PYRENE	0.015	0.029	C	0.2	NA	NA	0.034 UJ	0.034 UJ	0.034 UJ	NA	NA
BENZO(B)FLUORANTHENE	NA	0.29	C	NA	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
BENZO(G,H,I)PERYLENE	NA	1,100	N[6]	NA	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
BENZO(K)FLUORANTHENE	NA	2.9	C	NA	NA	NA	0.14 UJ	0.14 UJ	0.14 UJ	NA	NA
CHRYSENE	NA	29	C	NA	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
FLUORANTHENE	0.04	1,500	N	NA	NA	NA	**0.91 J**	0.04 UJ	**0.97 J**	NA	NA
FLUORENE	3	1,500	N	NA	NA	NA	0.054 UJ	0.13 J	0.054 UJ	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	0.29	C	NA	NA	NA	0.05 UJ	0.05 UJ	0.05 UJ	NA	NA
NAPHTHALENE	1.1	1.4	C	NA	NA	NA	0.035 UJ	0.074 J	0.035 UJ	NA	NA
PHENANTHRENE	0.4	1,100	N[6]	NA	NA	NA	**0.55 J**	**0.44 J**	**0.47 J**	NA	NA
PYRENE	0.025	1,100	N	NA	NA	NA	**0.16 J**	0.039 UJ	**0.27 J**	NA	NA
PCBS (UG/L)[10]											
AROCLOR-1260	0.000074 [7]	0.34	C	0.5	NA	NA	**0.49 J**	**0.18 J**	**0.61 J**	NA	NA
DISSOLVED METALS (UG/L)[10]											
ANTIMONY	30	15	N	6	0.74 B	4.6	2.2	0.47 B	1.9 J	2	0.29 B
ARSENIC	5	0.45	C	10	1.2 K	**10.9**	**23.4**	**6.2**	**12.6**	**14.8**	**6.7**
CADMIUM	0.25	18	N	5	**10**	0.13 J	0.23 J	0.13 J	0.11 U	0.11 U	0.11 U
CHROMIUM	85 [8]	55,000	N[9]	100	6.3	13.7	11.9	10	13	8.5	10.3
COPPER	9	1,500	N	1300	4.7	1.3 J	1.2 J	0.98 J	1.2 J	2.2	1.1 J
LEAD	2.5	NA		15	1.2 J	1.6 J	0.54 J	0.1 B	1 J	0.7 J	0.21 B
NICKEL	52	730	N	NA	6.8	1.2	0.97 B	1.7	1	1.1	0.7 B
SELENIUM	1	180	N	50	2.6 B	**4.8 J**	**4.9 J**	**5.1 J**	**4.6 J**	**4.4 J**	**4.9 J**
ZINC	120	11,000	N	NA	38.9	3.9 J	4.5 J	4.7 J	3.8 J	6.5	2.4 J
MISCELLANEOUS PARAMETERS (MG/L)[10]											
DISSOLVED ORGANIC CARBON	NA	NA		NA	12.5	9.6	8.3	12.2	8.3	6.2	14.3
HARDNESS	NA	NA		NA	540	715	619	724	579	643	669
MISCELLANEOUS PARAMETERS (S.U.)[10]											
PH	NA	NA		NA	7.5	8.1	7.8	7.3	7.8	8.1	7.8

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font.
3 - Screening criteria for pore water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water, the screening criteria presented in the table for pore water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the pore water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
7 - The value for total PCBs is used as a surrogate for Aroclor-1260.
8 - Value is for total chromium.
9 - The value is for trivalent chromium.
10 - The chemicals listed are those detected at least once in the pore water samples collected at the three depth intervals (0-6", 6-18", 18-30").

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table 4-12
Occurrence and Distribution of Chemicals - Ex-Situ Pore Water, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]
PAHs (ug/L)										
ACENAPHTHENE	2/3	0.11 J	0.17 J	PW-05	0.036	0.036	0.14	0.099	5.8	0
ANTHRACENE	1/3	0.052 J	0.052 J	PW-03	0.038	0.038	0.052	0.030	0.012	1
FLUORANTHENE	2/3	0.91 J	0.97 J	PW-05	0.04	0.04	0.94	0.63	0.04	2
FLUORENE	1/3	0.13 J	0.13 J	PW-04	0.054	0.054	0.13	0.061	3	0
NAPHTHALENE	1/3	0.074 J	0.074 J	PW-04	0.035	0.035	0.074	0.036	1.1	0
PHENANTHRENE	3/3	0.44 J	0.55 J	PW-03	--	--	0.49	0.49	0.4	3
PYRENE	2/3	0.16 J	0.27 J	PW-05	0.039	0.039	0.22	0.15	0.025	2
PCBs (ug/L)										
AROCLOR-1260	3/3	0.18 J	0.61 J	PW-05	--	--	0.43	0.43	0.000074[5]	3
Filtered Metals (ug/L)										
ANTIMONY	4/7	1.9 J	4.6	PW-02	0.29	0.74	2.7	1.6	30	0
ARSENIC	7/7	1.2 K	23.4	PW-03	--	--	10.8	10.8	5	6
CADMIUM	4/7	0.13 J	10	PW-01	0.11	0.11	2.6	1.5	0.25	1
CHROMIUM	7/7	6.3	13.7	PW-02	--	--	10.5	10.5	85[6]	0
COPPER	7/7	0.98 J	4.7	PW-01	--	--	1.8	1.8	9	0
LEAD	5/7	0.54 J	1.6 J	PW-02	0.1	0.21	1.0	0.74	2.5	0
NICKEL	5/7	1	6.8	PW-01	0.7	0.97	2.4	1.8	52	0
SELENIUM	6/7	4.4 J	5.1 J	PW-04	2.6	2.6	4.8	4.3	1	6
ZINC	7/7	2.4 J	38.9	PW-01	--	--	9.2	9.2	120	0
Miscellaneous Parameters (mg/L)										
DISSOLVED ORGANIC CARBON	7/7	6.2	14.3	PW-07	--	--	10.2	10.2	NA	0
HARDNESS	7/7	540	724	PW-04	--	--	641	641	NA	0
Miscellaneous Parameters (S.U.)										
PH	7/7	7.3	8.1	PW-02, PW-06	--	--	7.8	7.8	NA	0

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
5 - Value for Total PCBs used as a surrogate for Aroclor-1260.
6 - Value is for total chromium.

Definitions:
J = Estimated
K = Biased high
NA = Not applicable or not available

Associated Samples:
PW-01_0-6
PW-02_0-6
PW-03_0-6
PW-04_0-6
PW-05_0-6
PW-06_0-6
PW-07_0-6

Table 4-13
Detected Concentrations Table for Ex-Situ Pore Water, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION CORRESPONDING SEDIMENT LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]		USEPA Maximum Contaminant Level (MCL)[4][5]	PW-01 SD-85 PW-01_6-18 20100907 NORMAL PW NORMAL NA 6 18	PW-02 SD-87 PW-02_6-18 20100902 NORMAL PW NORMAL NA 6 18	PW-03 SD-88 PW-03_6-18 20100907 NORMAL PW NORMAL NA 6 18	PW-04 SD-89 PW-04_6-18 20100908 NORMAL PW NORMAL NA 6 18	PW-05 SD-90 PW-05_6-18 20100909 NORMAL PW NORMAL NA 6 18	PW-06 SD-99 PW-06_6-18 20100903 NORMAL PW NORMAL NA 6 18	PW-07 SD-101 PW-07_6-18 20100903 NORMAL PW NORMAL NA 6 18
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)[10]											
ACENAPHTHENE	5.8	2,200	N	NA	NA	NA	0.036 UJ	0.11 J	0.44 J	NA	NA
ANTHRACENE	0.012	11,000	N	NA	NA	NA	0.038 UJ	0.038 UJ	**0.17 J**	NA	NA
BENZO(A)ANTHRACENE	0.018	0.29	C	NA	NA	NA	0.037 UJ	0.037 UJ	**0.48 J**	NA	NA
BENZO(A)PYRENE	0.015	0.029	C	0.2	NA	NA	0.034 UJ	0.034 UJ	**0.23 J**	NA	NA
BENZO(B)FLUORANTHENE	NA	0.29	C	NA	NA	NA	0.039 UJ	0.039 UJ	2.6 J	NA	NA
BENZO(G,H,I)PERYLENE	NA	1,100	N[6]	NA	NA	NA	0.038 UJ	0.038 UJ	0.82 J	NA	NA
BENZO(K)FLUORANTHENE	NA	2.9	C	NA	NA	NA	0.14 UJ	0.14 UJ	0.98 J	NA	NA
CHRYSENE	NA	29	C	NA	NA	NA	0.035 UJ	0.035 UJ	0.39 J	NA	NA
FLUORANTHENE	0.04	1,500	N	NA	NA	NA	**0.85 J**	0.04 UJ	**2.1 J**	NA	NA
FLUORENE	3	1,500	N	NA	NA	NA	0.11 J	0.16 J	0.24 J	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	0.29	C	NA	NA	NA	0.05 UJ	0.05 UJ	0.98 J	NA	NA
NAPHTHALENE	1.1	1.4	C	NA	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
PHENANTHRENE	0.4	1,100	N[6]	NA	NA	NA	0.34 J	**0.61 J**	**0.8 J**	NA	NA
PYRENE	0.025	1,100	N	NA	NA	NA	0.039 UJ	0.039 UJ	**1.4 J**	NA	NA
PCBS (UG/L)[10]											
AROCLOR-1260	0.000074 [7]	0.34	C	0.5	NA	NA	**0.13 J**	**0.1 J**	**0.55 J**	NA	NA
DISSOLVED METALS (UG/L)[10]											
ANTIMONY	30	15	N	6	3.6	13.1	1.2 B	0.41 B	3.7	2.3	0.34 B
ARSENIC	5	0.45	C	10	2.7	**11.3**	**10.2**	**5.3**	**9.5**	**18.8**	3.4
CADMIUM	0.25	18	N	5	**23**	0.14 J	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
CHROMIUM	85 [8]	55,000	N[9]	100	16.1	14.8	13.7	13.6	12.5	7.8	13.4
COPPER	9	1,500	N	1300	8.3	1.7 J	1.3 J	0.75 J	0.78 J	2	0.81 J
LEAD	2.5	NA		15	**4.5**	0.63 J	0.26 J	0.098 B	0.65 J	0.48 J	0.27 J
NICKEL	52	730	N	NA	2.9	2.3	1	1.3	0.96 B	1.5	0.59 B
SELENIUM	1	180	N	50	2.2 B	**4.9 J**	**5.4 J**	**5.4 J**	**4.4 J**	**5.2 J**	**5.8 J**
ZINC	120	11,000	N	NA	47.5	4.7 J	3.7 J	2.6 J	3.5 J	4.3 J	1.7 J
MISCELLANEOUS PARAMETERS (MG/L)[10]											
DISSOLVED ORGANIC CARBON	NA	NA		NA	13.1	8.6	10.5	15.8	9.4	8.5	9.7
HARDNESS	NA	NA		NA	328	788	627	767	524	610	686
MISCELLANEOUS PARAMETERS (S.U.)[10]											
PH	NA	NA		NA	7.8	8.1	7.4	7.1	7.6	7.9	7.7

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font.
3 - Screening criteria for pore water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water, the screening criteria presented in the table for pore water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the pore water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
7 - The value for total PCBs is used as a surrogate for Aroclor-1260.
8 - Value is for total chromium.
9 - The value is for trivalent chromium.
10 - The chemicals listed are those detected at least once in the pore water samples collected at the three depth intervals (0-6", 6-18", 18-30").

Definitions:
B = Blank contamination
J = Estimated
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table 4-14
Occurrence and Distribution of Chemicals - Ex-Situ Pore Water, 6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]
PAHs (ug/L)										
ACENAPHTHENE	2/3	0.11 J	0.44 J	PW-05	0.036	0.036	0.28	0.19	5.8	0
ANTHRACENE	1/3	0.17 J	0.17 J	PW-05	0.038	0.038	0.17	0.069	0.012	1
BENZO(A)ANTHRACENE	1/3	0.48 J	0.48 J	PW-05	0.037	0.037	0.48	0.17	0.018	1
BENZO(A)PYRENE	1/3	0.23 J	0.23 J	PW-05	0.034	0.034	0.23	0.088	0.015	1
BENZO(B)FLUORANTHENE	1/3	2.6 J	2.6 J	PW-05	0.039	0.039	2.6	0.88	NA	0
BENZO(G,H,I)PERYLENE	1/3	0.82 J	0.82 J	PW-05	0.038	0.038	0.82	0.29	NA	0
BENZO(K)FLUORANTHENE	1/3	0.98 J	0.98 J	PW-05	0.14	0.14	0.98	0.37	NA	0
CHRYSENE	1/3	0.39 J	0.39 J	PW-05	0.035	0.035	0.39	0.14	NA	0
FLUORANTHENE	2/3	0.85 J	2.1 J	PW-05	0.04	0.04	1.5	0.99	0.04	2
FLUORENE	3/3	0.11 J	0.24 J	PW-05	--	--	0.17	0.17	3	0
INDENO(1,2,3-CD)PYRENE	1/3	0.98 J	0.98 J	PW-05	0.05	0.05	0.98	0.34	NA	0
PHENANTHRENE	3/3	0.34 J	0.8 J	PW-05	--	--	0.58	0.58	0.4	2
PYRENE	1/3	1.4 J	1.4 J	PW-05	0.039	0.039	1.4	0.48	0.025	1
PCBs (ug/L)										
AROCLOR-1260	3/3	0.1 J	0.55 J	PW-05	--	--	0.26	0.26	0.000074[5]	3
Filtered Metals (ug/L)										
ANTIMONY	4/7	2.3	13.1	PW-02	0.34	1.2	5.7	3.4	30	0
ARSENIC	7/7	2.7	18.8	PW-06	--	--	8.7	8.7	5	5
CADMIUM	2/7	0.14 J	23	PW-01	0.11	0.11	11.6	3.3	0.25	1
CHROMIUM	7/7	7.8	16.1	PW-01	--	--	13.1	13.1	85[6]	0
COPPER	7/7	0.75 J	8.3	PW-01	--	--	2.2	2.2	9	0
LEAD	6/7	0.26 J	4.5	PW-01	0.098	0.098	1.1	0.98	2.5	1
NICKEL	5/7	1	2.9	PW-01	0.59	0.96	1.8	1.4	52	0
SELENIUM	6/7	4.4 J	5.8 J	PW-07	2.2	2.2	5.2	4.6	1	6
ZINC	7/7	1.7 J	47.5	PW-01	--	--	9.7	9.7	120	0
Miscellaneous Parameters (mg/L)										
DISSOLVED ORGANIC CARBON	7/7	8.5	15.8	PW-04	--	--	10.8	10.8	NA	0
HARDNESS	7/7	328	788	PW-02	--	--	619	619	NA	0
Miscellaneous Parameters (S.U.)										
PH	7/7	7.1	8.1	PW-02	--	--	7.7	7.7	NA	0

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
5 - Value for Total PCBs used as a surrogate for Aroclor-1260.
6 - Value is for total chromium.

Definitions:
J = Estimated
NA = Not applicable or not available

Associated Samples:
PW-01_6-18
PW-02_6-18
PW-03_6-18
PW-04_6-18
PW-05_6-18
PW-06_6-18
PW-07_6-18

Table 4-15
Detected Concentrations Table for Ex-Situ Pore Water, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	PW-01	PW-02	PW-03	PW-04	PW-05	PW-06	PW-07
SEDIMENT LOCATION				SD-85	SD-87	SD-88	SD-89	SD-90	SD-99	SD-101
CORRESPONDING SEDIMENT LOCATION				SD-85	SD-87	SD-88	SD-89	SD-90	SD-99	SD-101
SAMPLE ID				PW-01_18-30	PW-02_18-30	PW-03_18-30	PW-04_18-30	PW-05_18-30	PW-06_18-30	PW-07_18-30
SAMPLE DATE				20100907	20100902	20100907	20100908	20100909	20100903	20100903
SAMPLE CODE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX				PW	PW	PW	PW	PW	PW	PW
SAMPLE TYPE				NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX				NA	NA	NA	NA	NA	NA	NA
TOP DEPTH				18	18	18	18	18	18	18
BOTTOM DEPTH				30	30	30	30	30	30	30
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)[10]										
ACENAPHTHENE	5.8	2,200 N	NA	NA	NA	0.12 J	0.11 J	0.093 J	NA	NA
ANTHRACENE	0.012	11,000 N	NA	NA	NA	**0.041 J**	**0.038 J**	0.038 UJ	NA	NA
BENZO(A)ANTHRACENE	0.018	0.29 C	NA	NA	NA	0.037 UJ	0.037 UJ	0.037 UJ	NA	NA
BENZO(A)PYRENE	0.015	0.029 C	0.2	NA	NA	0.034 UJ	0.034 UJ	0.034 UJ	NA	NA
BENZO(B)FLUORANTHENE	NA	0.29 C	NA	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
BENZO(G,H,I)PERYLENE	NA	1,100 N[6]	NA	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
BENZO(K)FLUORANTHENE	NA	2.9 C	NA	NA	NA	0.14 UJ	0.14 UJ	0.14 UJ	NA	NA
CHRYSENE	NA	29 C	NA	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
FLUORANTHENE	0.04	1,500 N	NA	NA	NA	**0.84 J**	**0.91 J**	0.04 UJ	NA	NA
FLUORENE	3	1,500 N	NA	NA	NA	0.12 J	0.054 UJ	0.054 UJ	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	0.29 C	NA	NA	NA	0.05 UJ	0.05 UJ	0.05 UJ	NA	NA
NAPHTHALENE	1.1	1.4 C	NA	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
PHENANTHRENE	0.4	1,100 N[6]	NA	NA	NA	0.39 J	**0.43 J**	**0.58 J**	NA	NA
PYRENE	0.025	1,100 N	NA	NA	NA	**0.1 J**	**0.2 J**	0.039 UJ	NA	NA
PCBS (UG/L)[10]										
AROCLOR-1260	0.000074 [7]	0.34 C	0.5	NA	NA	0.054 UJ	0.054 UJ	0.054 UJ	NA	NA
DISSOLVED METALS (UG/L)[10]										
ANTIMONY	30	15 N	6	7.6	5.8	0.9 B	0.84 B	1 B	0.86 B	1.5 B
ARSENIC	5	0.45 C	10	**7.4**	5	**9.6**	**6.3**	**9.8**	**12.1**	**6.4**
CADMIUM	0.25	18 N	5	**1.4**	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
CHROMIUM	85 [8]	55,000 N[9]	100	18.7	17.5	9.8	15.5	9.3	14.6	13.6
COPPER	9	1,500 N	1300	1.4 J	0.77 J	4.8	0.82 J	2.7	2.1	1.6 J
LEAD	2.5	NA	15	2.2	0.25 J	0.35 J	0.24 B	0.56 J	0.33 J	0.19 B
NICKEL	52	730 N	NA	2.2	2.2	1.8	1.4	1.3	4.4	1.1
SELENIUM	1	180 N	50	1.3 B	**6.5 J**	**5.1 J**	**6 J**	**4.3 J**	**5 J**	**5.7 J**
ZINC	120	11,000 N	NA	8.7	1.9 J	21.4	3.2 J	4.3 J	2.9 J	2.4 J
MISCELLANEOUS PARAMETERS (MG/L)[10]										
DISSOLVED ORGANIC CARBON	NA	NA	NA	10.7	11.4	14.9	20.9	11.4	11.2	11.5
HARDNESS	NA	NA	NA	260	880	578	747	441	617	724
MISCELLANEOUS PARAMETERS (S.U.)[10]										
PH	NA	NA	NA	7.7	7.8	7.2	7.1	7.2	7.7	7.7

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font.
3 - Screening criteria for pore water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water, the screening criteria presented in the table for pore water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the pore water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value for pyrene is used as a surrogate for benzo(g,h,i)perylene and phenanthrene.
7 - The value for total PCBs is used as a surrogate for Aroclor-1260.
8 - Value is for total chromium.
9 - The value is for trivalent chromium.
10 - The chemicals listed are those detected at least once in the pore water samples collected at the three depth intervals (0-6", 6-18", 18-30").

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table 4-16
Occurrence and Distribution of Chemicals - Ex-Situ Pore Water, 18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]
PAHs (ug/L)										
ACENAPHTHENE	3/3	0.093 J	0.12 J	PW-03	--	--	0.11	0.11	5.8	0
ANTHRACENE	2/3	0.038 J	0.041 J	PW-03	0.038	0.038	0.040	0.033	0.012	2
FLUORANTHENE	2/3	0.84 J	0.91 J	PW-04	0.04	0.04	0.88	0.59	0.04	2
FLUORENE	1/3	0.12 J	0.12 J	PW-03	0.054	0.054	0.12	0.058	3	0
PHENANTHRENE	3/3	0.39 J	0.58 J	PW-05	--	--	0.47	0.47	0.4	2
PYRENE	2/3	0.1 J	0.2 J	PW-04	0.039	0.039	0.15	0.11	0.025	2
Filtered Metals (ug/L)										
ANTIMONY	2/7	5.8	7.6	PW-01	0.84	1.5	6.7	2.3	30	0
ARSENIC	7/7	5	12.1	PW-06	--	--	8.1	8.1	5	6
CADMIUM	1/7	1.4	1.4	PW-01	0.11	0.11	1.4	0.25	0.25	1
CHROMIUM	7/7	9.3	18.7	PW-01	--	--	14.1	14.1	85[5]	0
COPPER	7/7	0.77 J	4.8	PW-03	--	--	2.0	2.0	9	0
LEAD	5/7	0.25 J	2.2	PW-01	0.19	0.24	0.74	0.56	2.5	0
NICKEL	7/7	1.1	4.4	PW-06	--	--	2.1	2.1	52	0
SELENIUM	6/7	4.3 J	6.5 J	PW-02	1.3	1.3	5.4	4.8	1	6
ZINC	7/7	1.9 J	21.4	PW-03	--	--	6.4	6.4	120	0
Miscellaneous Parameters (mg/L)										
DISSOLVED ORGANIC CARBON	7/7	10.7	20.9	PW-04	--	--	13.1	13.1	NA	0
HARDNESS	7/7	260	880	PW-02	--	--	607	607	NA	0
Miscellaneous Parameters (S.U.)										
PH	7/7	7.1	7.8	PW-02	--	--	7.5	7.5	NA	0

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
5 - Value is for total chromium.

Definitions:
J = Estimated
NA = Not applicable or not available

Associated Samples:
PW-01_18-30
PW-02_18-30
PW-03_18-30
PW-04_18-30
PW-05_18-30
PW-06_18-30
PW-07_18-30

Table 4-17
Detected Concentrations Table for In-Situ Pore Water, Cow Pen Creek
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	CPC-SW/PW-1 CPC-PW-VOC-1 20100902 NORMAL PW NORMAL NA -9999 -9999	CPC-SW/PW-2 CPC-PW-VOC-2 20100929 NORMAL PW NORMAL NA -9999 -9999	CPC-SW/PW-3 CPC-PW-VOC-3 20100929 NORMAL PW NORMAL NA -9999 -9999
VOLATILES (UG/L)[7]						
1,1-DICHLOROETHANE	47	24 C	NA	0.15 U	0.38 U	0.25 J
2-BUTANONE	14000	7100 N	NA	3.3 J	120 J	3 J
4-METHYL-2-PENTANONE	170	2000 N	NA	0.32 U	0.8 U	0.32 U
ACETONE	1500	22000 N	NA	26 J	140 B	17 B
CARBON DISULFIDE	0.92	1000 N	NA	**0.95 J**	0.32 U	0.13 U
CIS-1,2-DICHLOROETHENE	590 [5]	73 N	70	0.17 U	0.42 U	0.24 J
METHYLENE CHLORIDE	98.1	48 C	5	0.33 U	0.82 U	0.33 U
TETRACHLOROETHENE	111	1.1 C	5	0.29 U	0.72 U	0.29 U
TOLUENE	2	2300 N	1000	0.13 U	0.32 U	0.13 U
TRICHLOROETHENE	21	20 C	5	0.17 U	0.42 U	0.17 U
VINYL CHLORIDE	930	0.16 C	2	0.22 U	0.55 U	0.55 J

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font.
3 - Screening criteria for pore water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water, the screening criteria presented in the table for pore water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the pore water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.
7 - The chemicals listed are those detected at least once in the in-situ pore water samples collected from Cow Pen Creek or Dark Head Cove.

Definitions:
J = Estimated
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table 4-18
Occurrence and Distribution of Chemicals - In-Situ Pore Water, Cow Pen Creek
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]
Volatile Organics (ug/L)										
1,1-DICHLOROETHANE	1/3	0.25 J	0.25 J	CPC-SW/PW-3	0.15	0.38	0.25	0.17	47	0
2-BUTANONE	3/3	3 J	120 J	CPC-SW/PW-2	--	--	42.1	42.1	14000	0
ACETONE	1/3	26 J	26 J	CPC-SW/PW-1	17	140	26.0	34.8	1500	0
CARBON DISULFIDE	1/3	0.95 J	0.95 J	CPC-SW/PW-1	0.13	0.32	0.95	0.39	0.92	1
CIS-1,2-DICHLOROETHENE	1/3	0.24 J	0.24 J	CPC-SW/PW-3	0.17	0.42	0.24	0.18	590[5]	0
VINYL CHLORIDE	1/3	0.55 J	0.55 J	CPC-SW/PW-3	0.22	0.55	0.55	0.31	930	0

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
5 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.

Definitions:
J = Estimated
NA = Not applicable or not available

Associated Samples:
CPC-PW-VOC-1
CPC-PW-VOC-2
CPC-PW-VOC-3

Table 4-19
Detected Concentrations Table for In-Situ Pore Water, Dark Head Cove
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	DHC-SW/PW-1 DHC-PW-VOC-1 20100901 NORMAL PW NORMAL NA -9999 -9999	DHC-SW/PW-2 DHC-PW-VOC-2 20100901 NORMAL PW NORMAL NA -9999 -9999	DHC-SW/PW-3 DHC-PW-VOC-3 20100902 NORMAL PW NORMAL NA -9999 -9999	DHC-SW/PW-4 DHC-PW-VOC-4 20100902 NORMAL PW NORMAL NA -9999 -9999	DHC-SW/PW-5 DHC-PW-VOC-5 20100902 NORMAL PW NORMAL NA -9999 -9999
VOLATILES (UG/L)								
1,1-DICHLOROETHANE	47	24 C	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
2-BUTANONE	14000	7100 N	NA	1.6 J	7.5	4 J	2 J	6.1
4-METHYL-2-PENTANONE	170	2000 N	NA	0.32 U	0.56 J	0.32 U	0.32 U	0.32 U
ACETONE	1500	22000 N	NA	4 J	27 J	15 J	11 J	15 J
CARBON DISULFIDE	0.92	1000 N	NA	0.13 U	0.53 J	0.89 J	0.4 J	0.13 U
CIS-1,2-DICHLOROETHENE	590 [5]	73 N	70	0.29 J	0.17 U	0.17 U	0.34 J	0.17 U
METHYLENE CHLORIDE	98.1	48 C	5	0.33 U	1.7	0.33 U	0.33 U	0.33 U
TETRACHLOROETHENE	111	1.1 C	5	0.29 U	0.43 J	0.29 U	0.29 U	0.29 U
TOLUENE	2	2300 N	1000	0.13 U	0.68 J	0.13 U	0.13 U	0.13 U
TRICHLOROETHENE	21	20 C	5	0.88 J	0.17 U	0.17 U	0.17 U	0.17 U
VINYL CHLORIDE	930	0.16 C	2	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font (there were no exceedances).
3 - Screening criteria for pore water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to pore water, the screening criteria presented in the table for pore water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the pore water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.
7 - The chemicals listed are those detected at least once in the in-situ pore water samples collected from Cow Pen Creek or Dark Head Cove.

Definitions:
J = Estimated
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table 4-20
Occurrence and Distribution of Chemicals - In-Situ Pore Water, Dark Head Cove
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]	Maximum Concentration[1]	Location of Maximum Concentration	Minimum Non-detect	Maximum Non-detect	Average of Positive Results[2]	Overall Average[3]	Ecological Screening Value (ESV)[4]	# Detects Greater Than ESV[1]
Volatile Organics (ug/L)										
2-BUTANONE	5/5	1.6 J	7.5	DHC-SW/PW-2	--	--	4.2	4.2	14000	0
4-METHYL-2-PENTANONE	1/5	0.56 J	0.56 J	DHC-SW/PW-2	0.32	0.32	0.56	0.24	170	0
ACETONE	5/5	4 J	27 J	DHC-SW/PW-2	--	--	14.4	14.4	1500	0
CARBON DISULFIDE	3/5	0.4 J	0.89 J	DHC-SW/PW-3	0.13	0.13	0.61	0.39	0.92	0
CIS-1,2-DICHLOROETHENE	2/5	0.29 J	0.34 J	DHC-SW/PW-4	0.17	0.17	0.32	0.18	590[5]	0
METHYLENE CHLORIDE	1/5	1.7	1.7	DHC-SW/PW-2	0.33	0.33	1.7	0.47	98.1	0
TETRACHLOROETHENE	1/5	0.43 J	0.43 J	DHC-SW/PW-2	0.29	0.29	0.43	0.20	111	0
TOLUENE	1/5	0.68 J	0.68 J	DHC-SW/PW-2	0.13	0.13	0.68	0.19	2	0
TRICHLOROETHENE	1/5	0.88 J	0.88 J	DHC-SW/PW-1	0.17	0.17	0.88	0.24	21	0

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
5 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.

Definitions:
J = Estimated
NA = Not applicable or not available

Associated Samples:
DHC-PW-VOC-1
DHC-PW-VOC-2
DHC-PW-VOC-3
DHC-PW-VOC-4
DHC-PW-VOC-5

Table 4-21
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	CPC-SW/PW-1 CPC-SW-VOC-1 20100902 NORMAL SW NORMAL NA -9999 -9999	CPC-SW/PW-2 CPC-SW-VOC-2 20100929 NORMAL SW NORMAL NA -9999 -9999	CPC-SW/PW-3 CPC-SW-VOC-3 20100929 NORMAL SW NORMAL NA -9999 -9999
VOLATILES (UG/L)						
2-BUTANONE	14000	7100 N	NA	0.65 J	0.57 U	0.57 U
ACETONE	1500	22000 N	NA	1.1 U	6.4 B	8.6 B
METALS (UG/L)						
ANTIMONY	30	15 N	6	NA	NA	NA
ARSENIC	5	0.45 C	10	NA	NA	NA
BARIUM	4	7,300 N	2000	NA	NA	NA
CHROMIUM	85 [6]	55,000 N[7]	100	NA	NA	NA
COBALT	23	11 N	NA	NA	NA	NA
COPPER	9	1,500 N	1300	NA	NA	NA
IRON	300	26,000 N	NA	NA	NA	NA
LEAD	2.5	NA	15	NA	NA	NA
MANGANESE	120	880	NA	NA	NA	NA
MOLYBDENUM	73	180 N	NA	NA	NA	NA
NICKEL	52	730 N	NA	NA	NA	NA
VANADIUM	20	180 N	NA	NA	NA	NA
ZINC	120	11,000 N	NA	NA	NA	NA

Table 4-21
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	DHC-SW/PW-1 DHC-SW-VOC-1 20100901 NORMAL SW NORMAL NA -9999 -9999	DHC-SW/PW-2 DHC-SW-VOC-2 20100901 NORMAL SW NORMAL NA -9999 -9999	DHC-SW/PW-3 DHC-SW-VOC-3 20100902 NORMAL SW NORMAL NA -9999 -9999
VOLATILES (UG/L)						
2-BUTANONE	14000	7100 N	NA	0.57 U	0.57 U	0.57 U
ACETONE	1500	22000 N	NA	2.3 J	4.8 J	11 J
METALS (UG/L)						
ANTIMONY	30	15 N	6	NA	NA	NA
ARSENIC	5	0.45 C	10	NA	NA	NA
BARIUM	4	7,300 N	2000	NA	NA	NA
CHROMIUM	85 [6]	55,000 N[7]	100	NA	NA	NA
COBALT	23	11 N	NA	NA	NA	NA
COPPER	9	1,500 N	1300	NA	NA	NA
IRON	300	26,000 N	NA	NA	NA	NA
LEAD	2.5	NA	15	NA	NA	NA
MANGANESE	120	880	NA	NA	NA	NA
MOLYBDENUM	73	180 N	NA	NA	NA	NA
NICKEL	52	730 N	NA	NA	NA	NA
VANADIUM	20	180 N	NA	NA	NA	NA
ZINC	120	11,000 N	NA	NA	NA	NA

Table 4-21
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	DHC-SW/PW-4 DHC-SW-VOC-4 20100902 NORMAL SW NORMAL NA -9999 -9999	DHC-SW/PW-5 DHC-SW-VOC-5 20100902 NORMAL SW NORMAL NA -9999 -9999	DHC-SW-6 DHC-SW-VOC-6 20100903 NORMAL SW NORMAL NA -9999 -9999
VOLATILES (UG/L)						
2-BUTANONE	14000	7100 N	NA	0.57 U	0.57 U	0.57 U
ACETONE	1500	22000 N	NA	12 J	5.8 J	1.1 U
METALS (UG/L)						
ANTIMONY	30	15 N	6	NA	NA	NA
ARSENIC	5	0.45 C	10	NA	NA	NA
BARIUM	4	7,300 N	2000	NA	NA	NA
CHROMIUM	85 [6]	55,000 N[7]	100	NA	NA	NA
COBALT	23	11 N	NA	NA	NA	NA
COPPER	9	1,500 N	1300	NA	NA	NA
IRON	300	26,000 N	NA	NA	NA	NA
LEAD	2.5	NA	15	NA	NA	NA
MANGANESE	120	880	NA	NA	NA	NA
MOLYBDENUM	73	180 N	NA	NA	NA	NA
NICKEL	52	730 N	NA	NA	NA	NA
VANADIUM	20	180 N	NA	NA	NA	NA
ZINC	120	11,000 N	NA	NA	NA	NA

Table 4-21
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

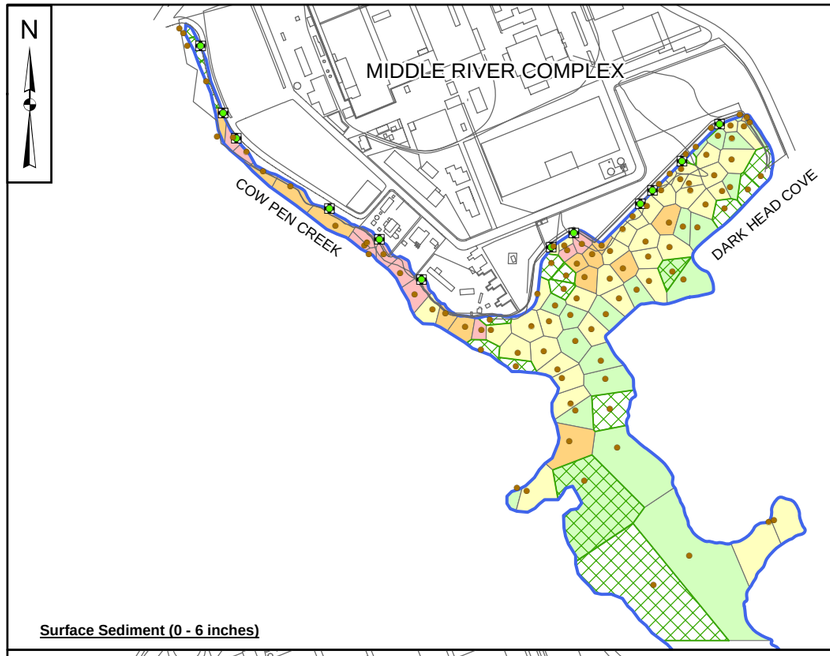
LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	Ecological Screening Value (ESV)[1][2]	Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]	USEPA Maximum Contaminant Level (MCL)[4][5]	DHC-SW-7 DHC-SW-VOC-7 20100903 ORIG SW NORMAL NA -9999 -9999	DHC-SW-7 DHC-SW-VOC-7-D 20100903 DUP SW NORMAL NA -9999 -9999	MRC-SW/SD-1 MRC-SW-1 20101014 NORMAL STORMWATER RUN-OFF NORMAL NA -9999 -9999
VOLATILES (UG/L)						
2-BUTANONE	14000	7100 N	NA	0.57 U	0.57 U	NA
ACETONE	1500	22000 N	NA	5.1 J	7.8 J	NA
METALS (UG/L)						
ANTIMONY	30	15 N	6	NA	NA	2
ARSENIC	5	0.45 C	10	NA	NA	2.6 J
BARIUM	4	7,300 N	2000	NA	NA	**28.3**
CHROMIUM	85 [6]	55,000 N[7]	100	NA	NA	6.7
COBALT	23	11 N	NA	NA	NA	0.4 J
COPPER	9	1,500 N	1300	NA	NA	**23.2**
IRON	300	26,000 N	NA	NA	NA	**603**
LEAD	2.5	NA	15	NA	NA	**4**
MANGANESE	120	880	NA	NA	NA	23.6
MOLYBDENUM	73	180 N	NA	NA	NA	2.8
NICKEL	52	730 N	NA	NA	NA	2.4 K
VANADIUM	20	180 N	NA	NA	NA	3.7 J
ZINC	120	11,000 N	NA	NA	NA	47.8

Table 4-21
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

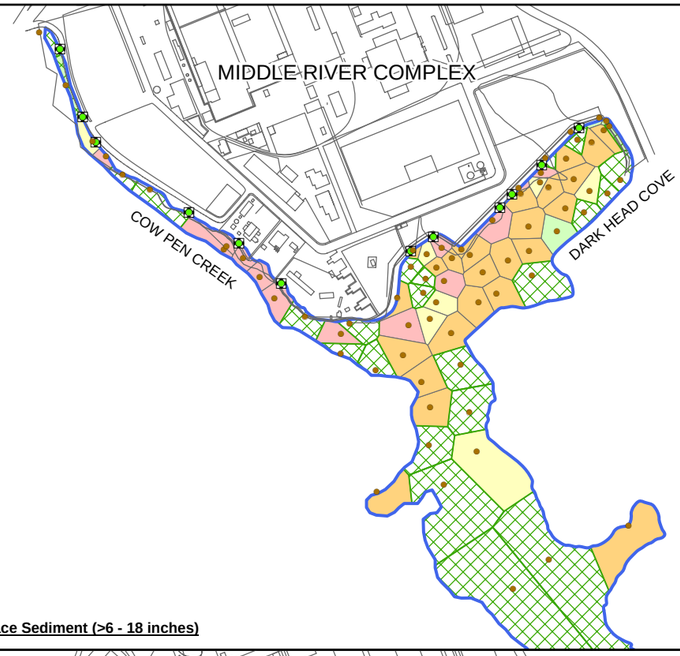
LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE MATRIX SAMPLE TYPE SUBMATRIX TOP DEPTH BOTTOM DEPTH	**Ecological Screening Value (ESV)[1][2]**	**Adjusted USEPA Regional Screening Level (RSL) for Tap Water[3][4]**	**USEPA Maximum Contaminant Level (MCL)[4][5]**	**MSA-SW-1 MSA-SW-1 20101014 NORMAL STORMWATER RUN-OFF NORMAL NA -9999 -9999**
VOLATILES (UG/L)				
2-BUTANONE	14000	7100 N	NA	NA
ACETONE	1500	22000 N	NA	NA
METALS (UG/L)				
ANTIMONY	30	15 N	6	1 J
ARSENIC	5	0.45 C	10	1.2 J
BARIUM	4	7,300 N	2000	**40.7**
CHROMIUM	85 [6]	55,000 N[7]	100	4
COBALT	23	11 N	NA	0.55 J
COPPER	9	1,500 N	1300	8.8
IRON	300	26,000 N	NA	**676**
LEAD	2.5	NA	15	**3**
MANGANESE	120	880	NA	41
MOLYBDENUM	73	180 N	NA	2.5
NICKEL	52	730 N	NA	2.8 K
VANADIUM	20	180 N	NA	3.1 J
ZINC	120	11,000 N	NA	42.6

Notes:
1 - USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels for freshwater surface water (USEPA, August 2006).
2 - Concentrations exceeding the ESV are shaded black with white font.
3 - Screening criteria for surface water are based on USEPA Regional Screening Levels (RSLs) for tap water (November, 2010). To account for the anticipated reduced exposure to surface water, the screening criteria presented in the table for surface water are 10 times those typically used for tap water (which are also based on RSLs). Therefore, the screening criteria for carcinogens in the surface water are set at 10 times the RSL for tap water. The screening criteria for non-carcinogens in the surface water are set equal to the RSL for tap water.
4 - Presented for informational purposes only.
5 - 2009 Edition of the Drinking Water Standards and Health Advisories (USEPA, October 2009).
6 - The value is for total chromium.
7 - The value is for trivalent chromium.

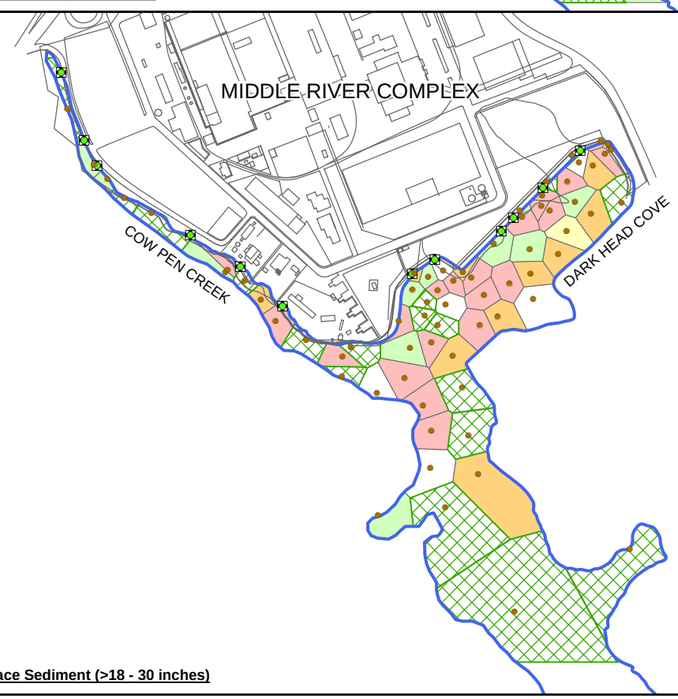
Definitions:
B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
R = Rejected
SW = Surface water
U = Non-detected



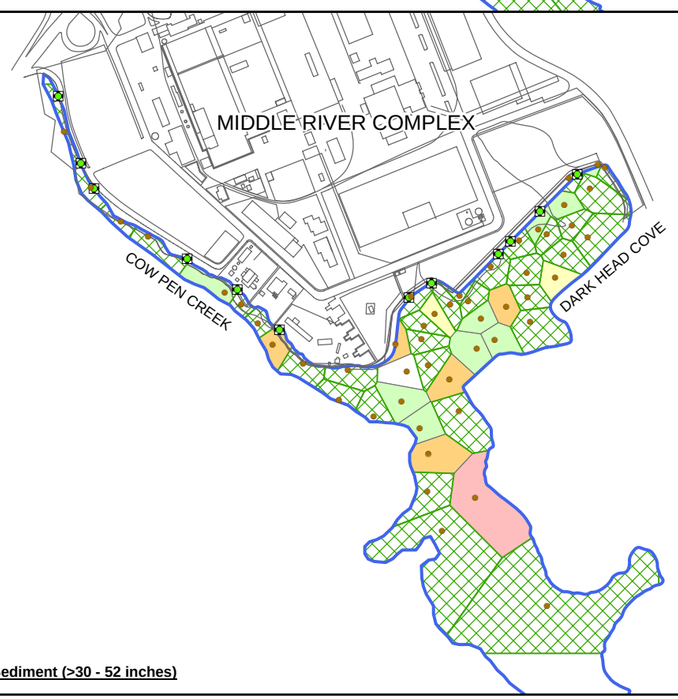
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 1
Thiessen Polygons for
Ecological Risk Assessment of
Cadmium in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Cadmium Sample Location
- Stormwater Outfall Locations

Cadmium Thiessen Polygons (mg/kg)

- Less than Background
- < or = 0.68
- > 0.68 - 4.21
- > 4.21 - 8.42
- > 8.42 - 21
- > 21
- Buildings/Roads
- Middle River

TEL = 0.68
PEL = 4.21
2X PEL = 8.42
5X PEL = 21

Background Concentration
SD 0-6" = 0.95 mg/kg
SD 6-18" = 0.91 mg/kg
SD 18-30" = 0.36 mg/kg
SD 30-52" = 0.34 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 01/17/11
Checked By: L. GANSER 01/17/11
Approved By:

Contract Number: 112IC02903

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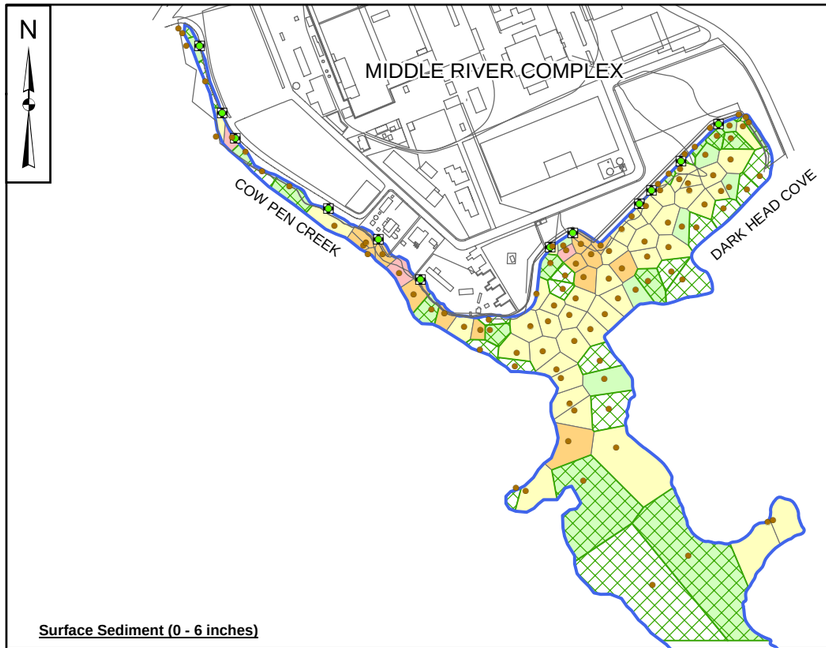
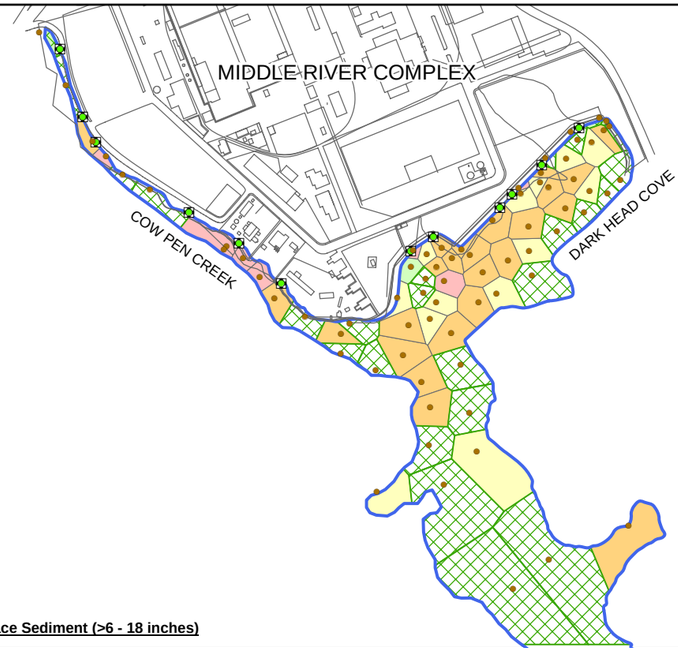
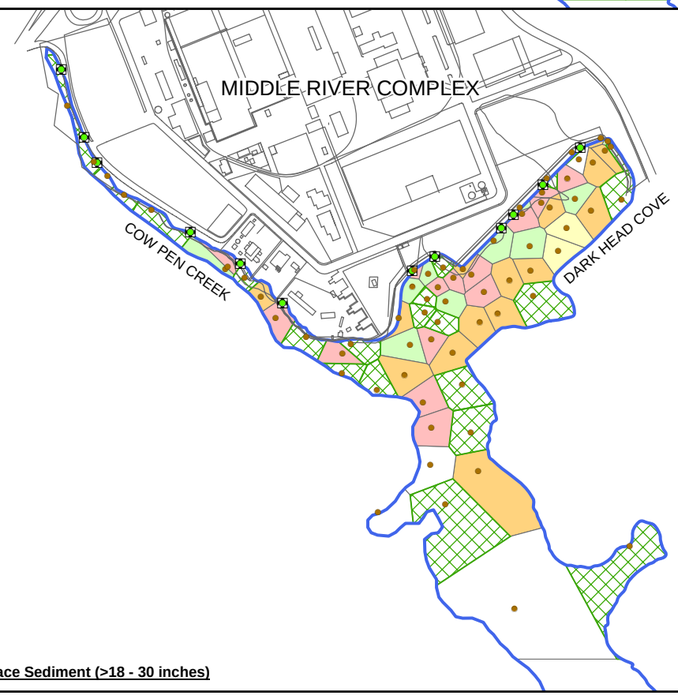


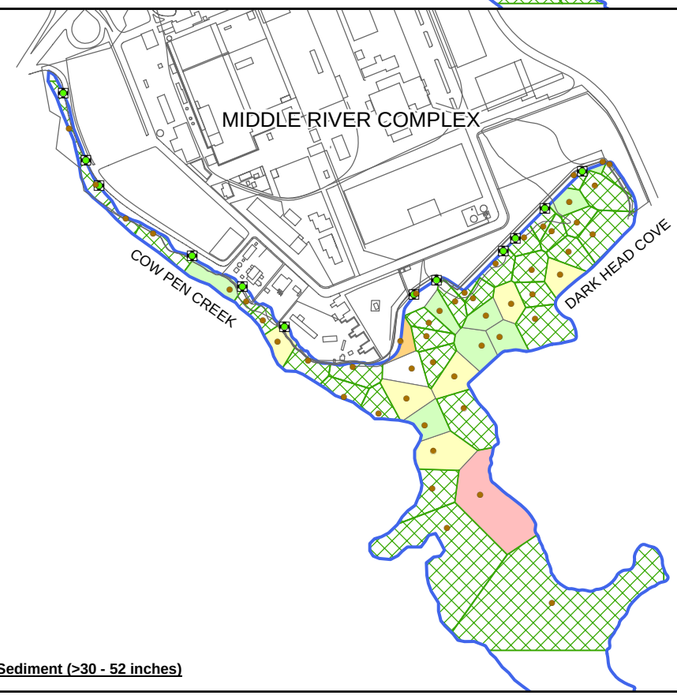
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 2
Thiessen Polygons for
Chromium in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Chromium Sample Location
- Stormwater Outfall Locations

Chromium Thiessen Polygons (mg/kg)

- Less than Background
- < or = 43.4
- > 43.4 - 111
- > 111 - 222
- > 222 - 555
- > 555
- Buildings/Roads
- Middle River

TEC = 43.4
PEC = 111
2X PEC = 222
5X PEC = 555

Background Concentration
SD 0-6" = 90.9 mg/kg
SD 6-18" = 66.8 mg/kg
SD 18-30" = 33.2 mg/kg
SD 30-52" = 32.9 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 12/17/10
Checked By: L. SINAGOGA 12/17/10
Approved By:

Contract Number: 112IC02903

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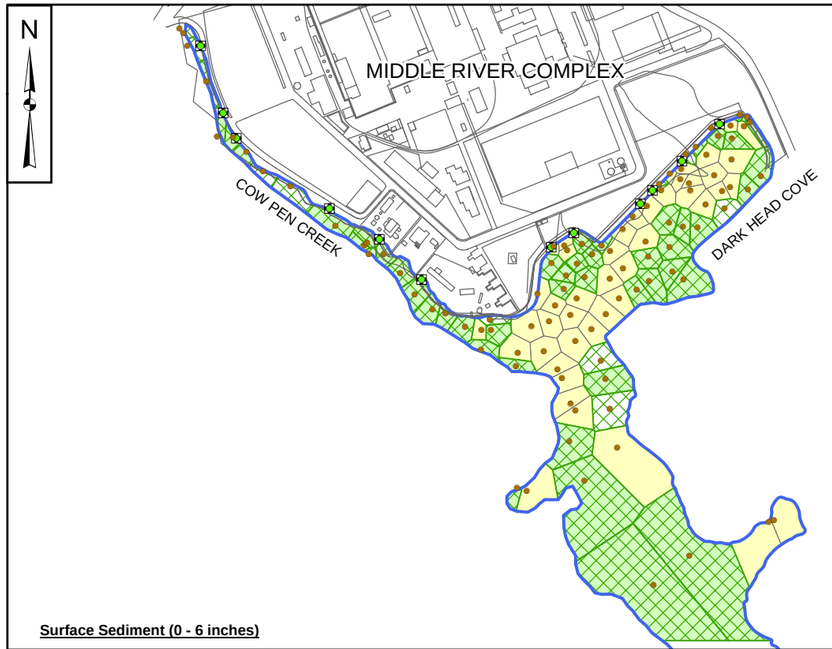
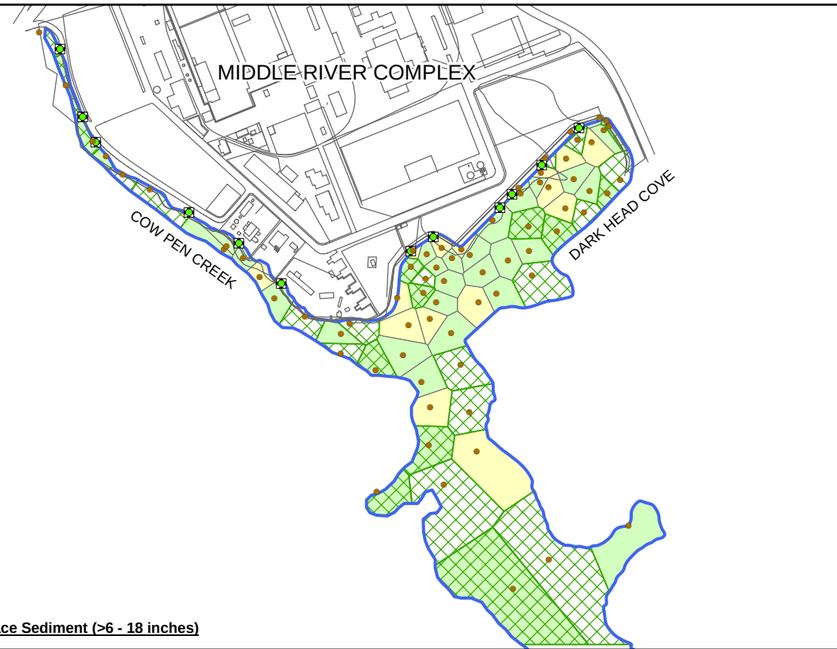
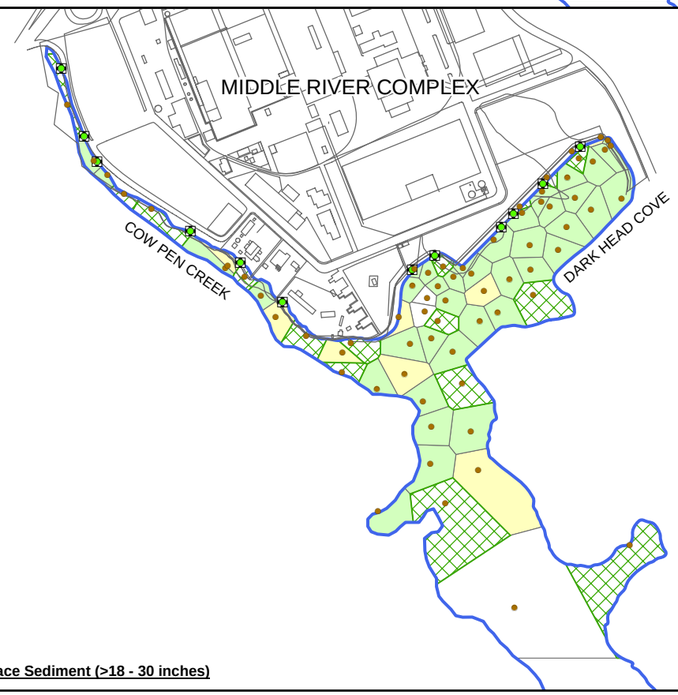


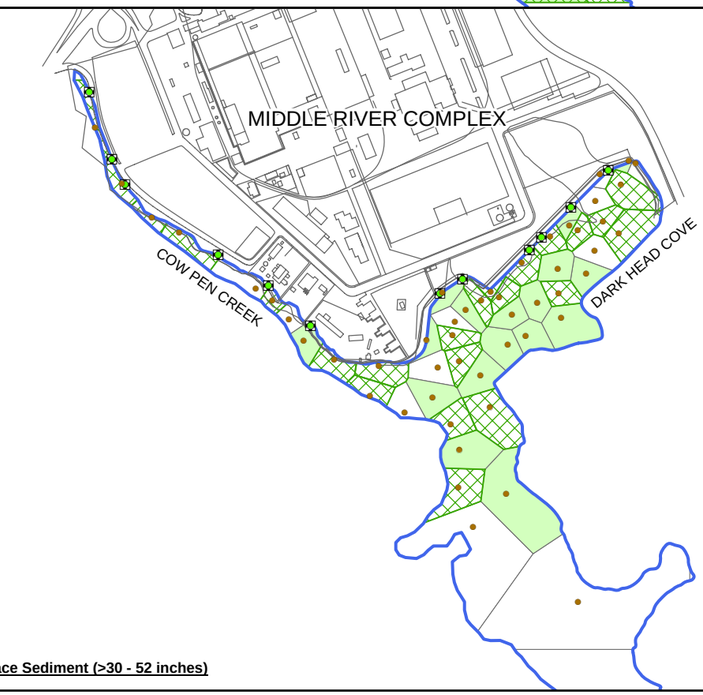
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 3
Thiessen Polygons for
Ecological Risk Assessment of
Copper in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Copper Sample Location
- Stormwater Outfall Locations

Copper Thiessen Polygons (mg/kg)

- Less than Background
- < or = 18.7
- > 18.7 - 108
- > 108 - 216
- > 216 - 540
- > 540
- Buildings/Roads
- Middle River

TEL = 18.7
PEL = 108
2X PEL = 216
5X PEL = 540

Background Concentration
SD 0-6" = 110 mg/kg
SD 6-18 = 54 mg/kg
SD 18-30" = 16.2 mg/kg
SD 30-52" = 14 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 01/17/11
Checked By: L. GANSER 01/17/11
Approved By:

Contract Number: 112IC02903

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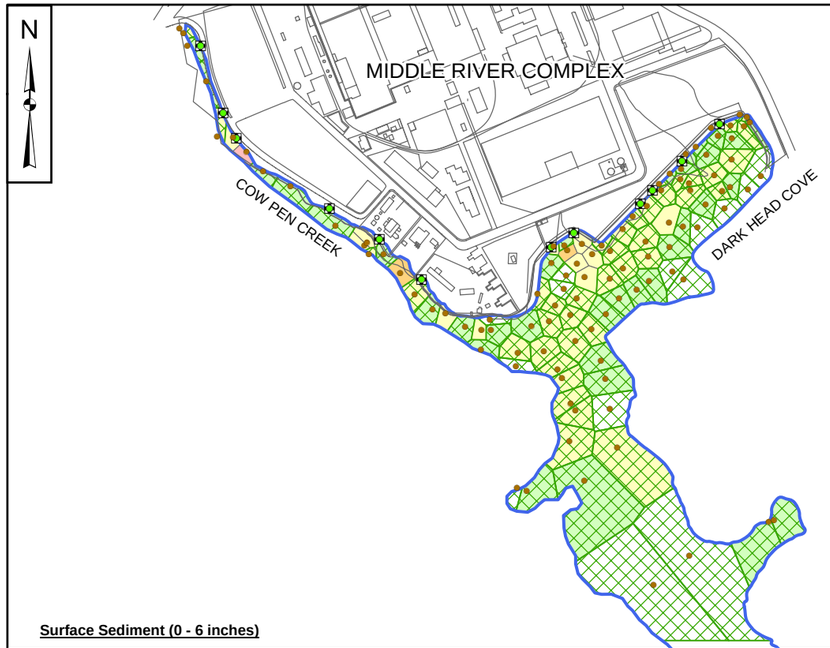
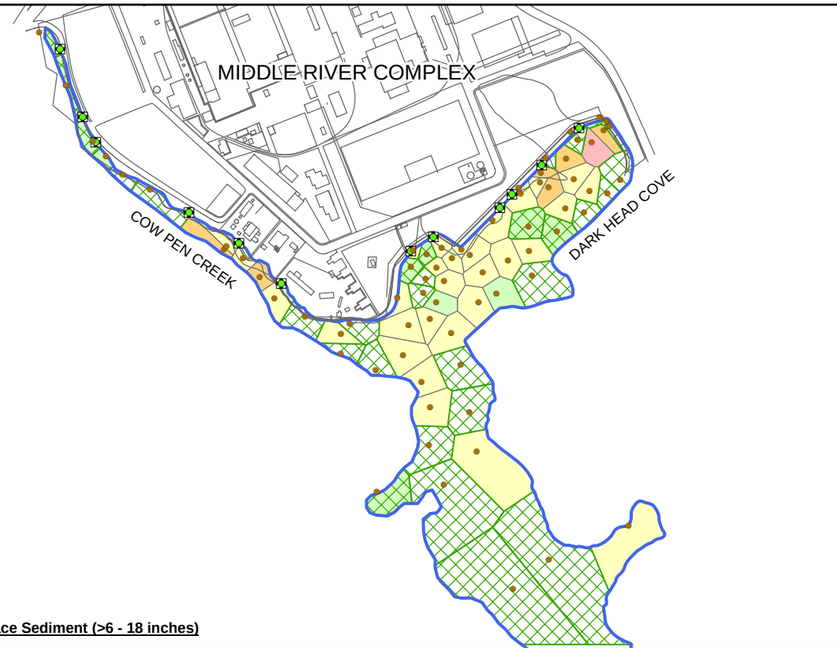
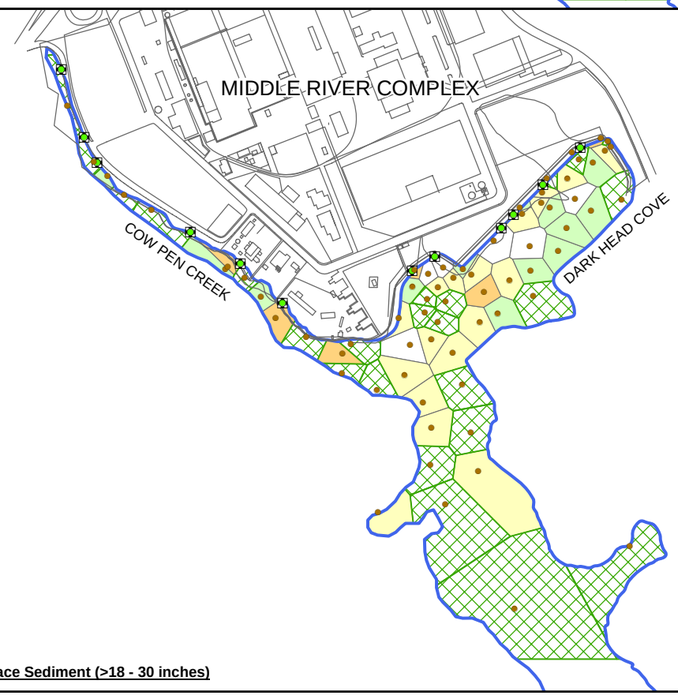


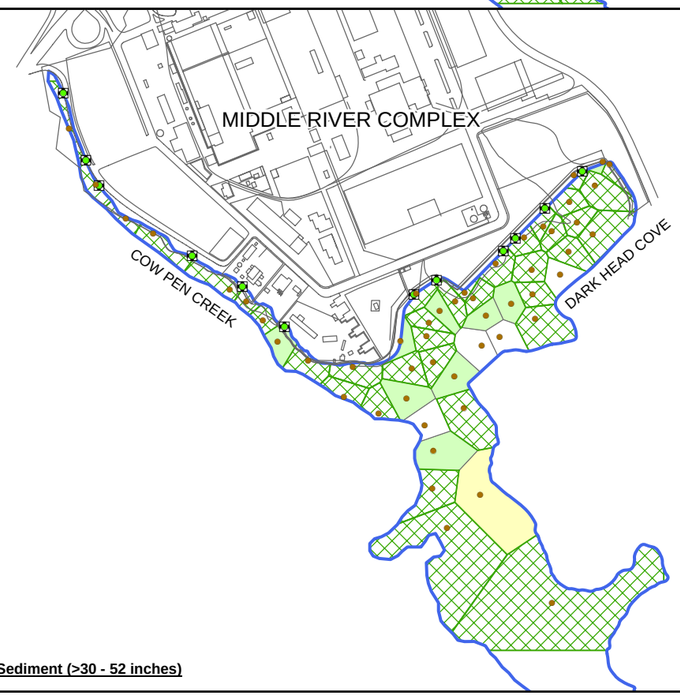
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 4
Thiessen Polygons for
Ecological Risk Assessment of
Lead in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Lead Sample Location
- Stormwater Outfall Locations

Lead Thiessen Polygons (mg/kg)

- Less than Background
- < or = 30.2
- > 30.2 - 112
- > 112 - 224
- > 224 - 560
- > 560
- Buildings/Roads
- Middle River

TEL = 30.2
PEL = 112
2X PEL = 224
5X PEL = 560

Background Concentration
SD 0-6" = 151 mg/kg
SD 6-18" = 95.5 mg/kg
SD 18-30" = 18.7 mg/kg
SD 30-52" = 18.6 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 01/17/11
Checked By: L. GANSER 01/17/11
Approved By:

Contract Number: 112IC02903

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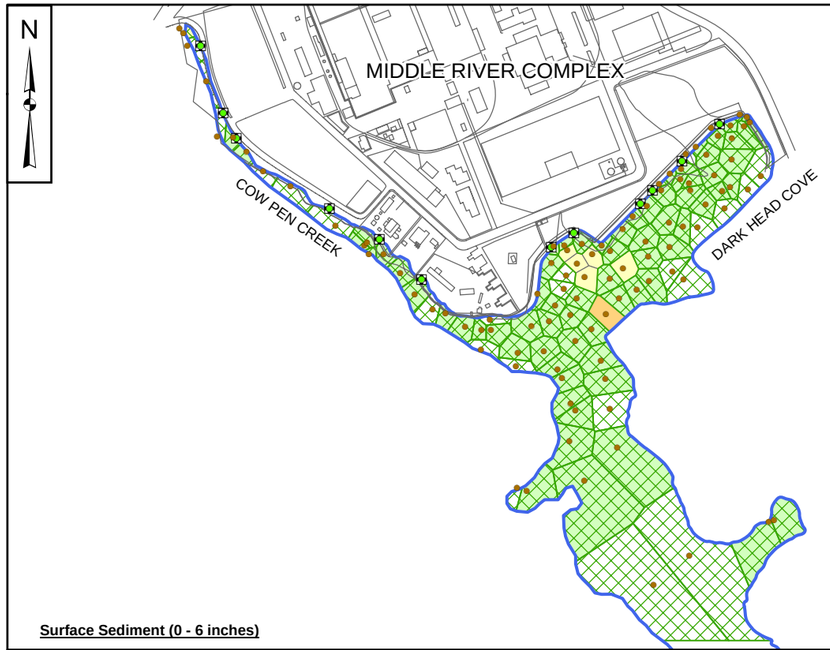
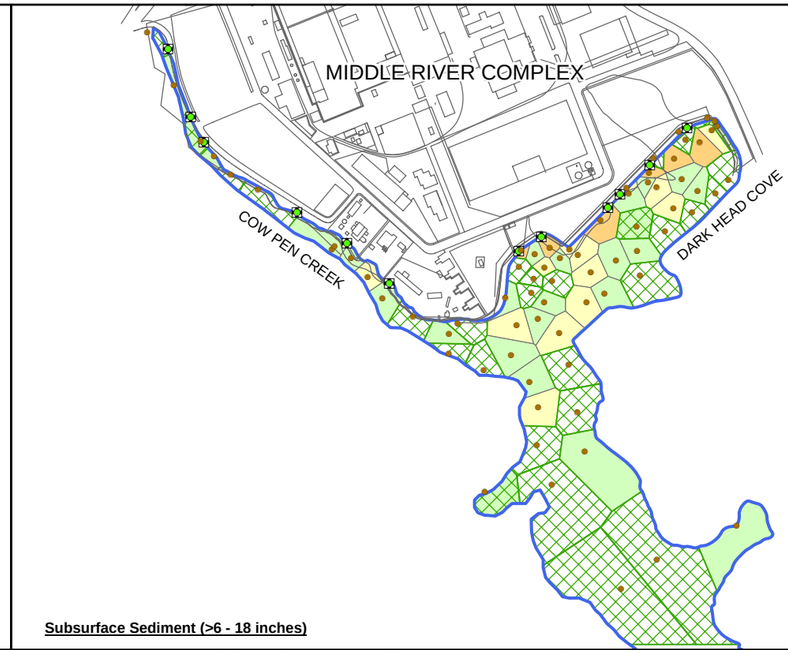
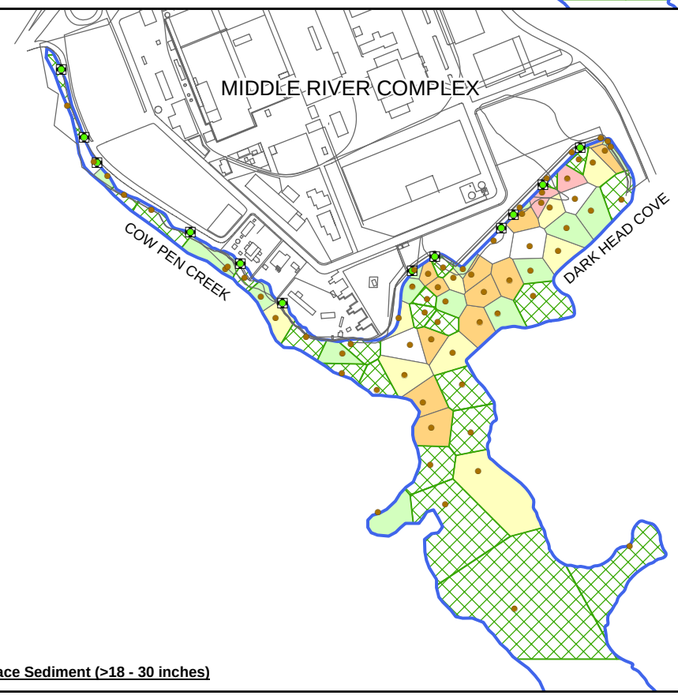


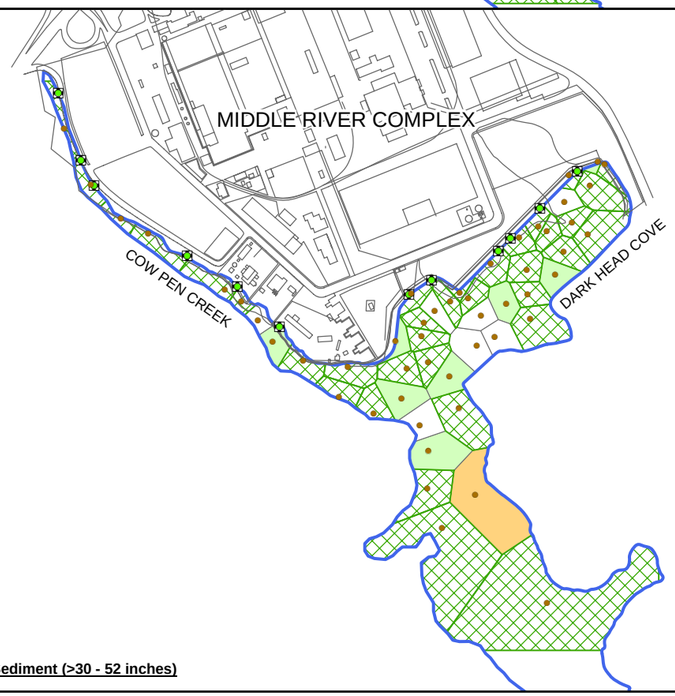
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 5
Thiessen Polygons for
Ecological Risk Assessment of
Mercury in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Mercury Sample Location
- Stormwater Outfall Locations

Mercury Thiessen Polygons (mg/kg)

- Less than Background
- < or = 0.13
- > 0.13 - 0.70
- > 0.70 - 1.4
- > 1.4 - 3.5
- > 3.5
- Buildings/Roads
- Middle River

TEL = 0.13
PEL = 0.70
2X PEL = 1.4
5X PEL = 3.5

Background Concentration
SD 0-6" = 0.71 mg/kg
SD 6-18" = 0.29 mg/kg
SD 18-30" = 0.053 mg/kg
SD 30-52" = 0.051 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 01/17/11
Checked By: L. GANSER 01/17/11
Approved By:

Contract Number: 112IC02903

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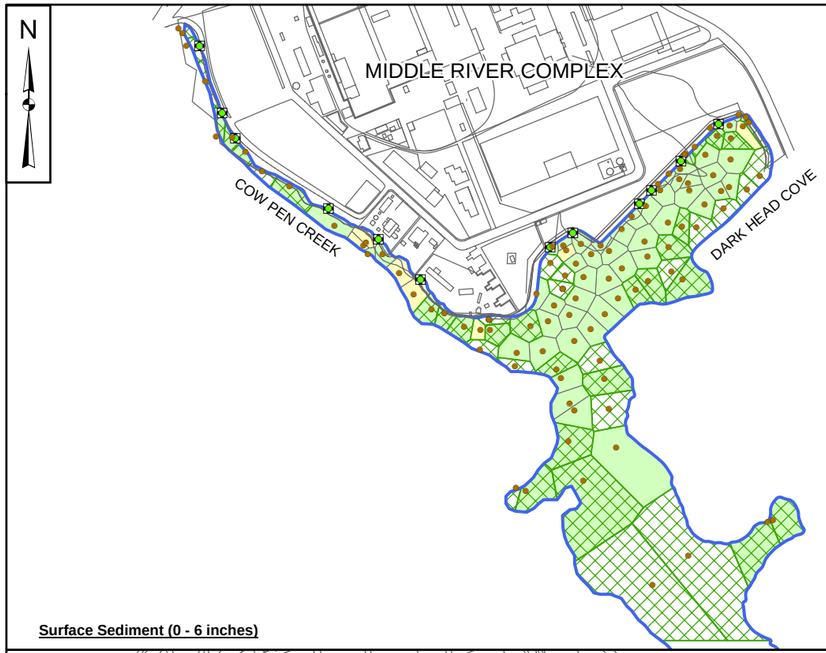
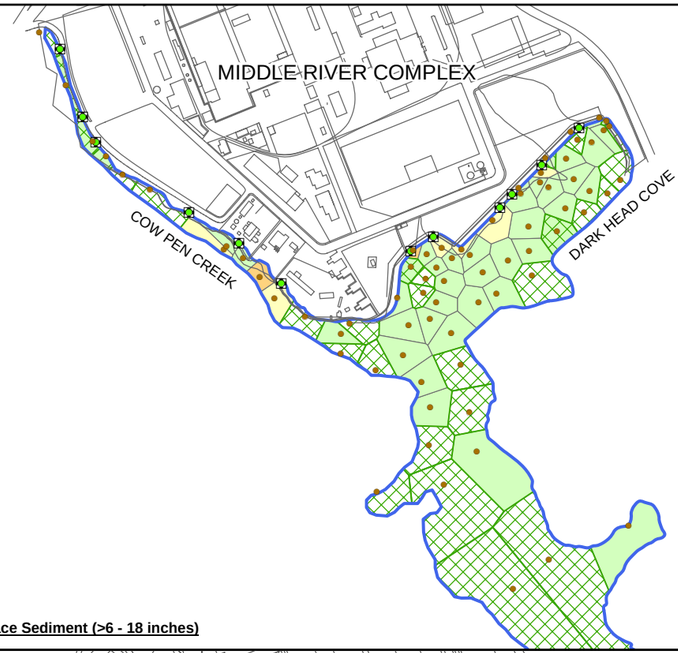
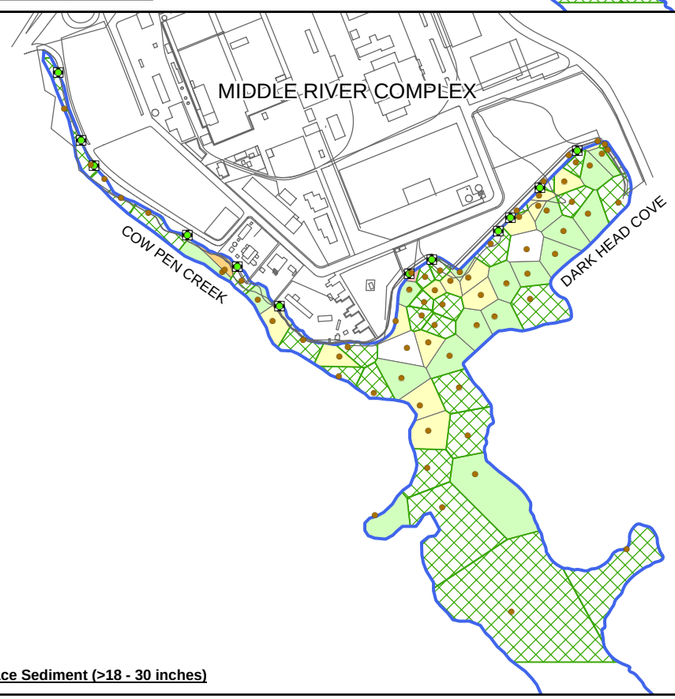


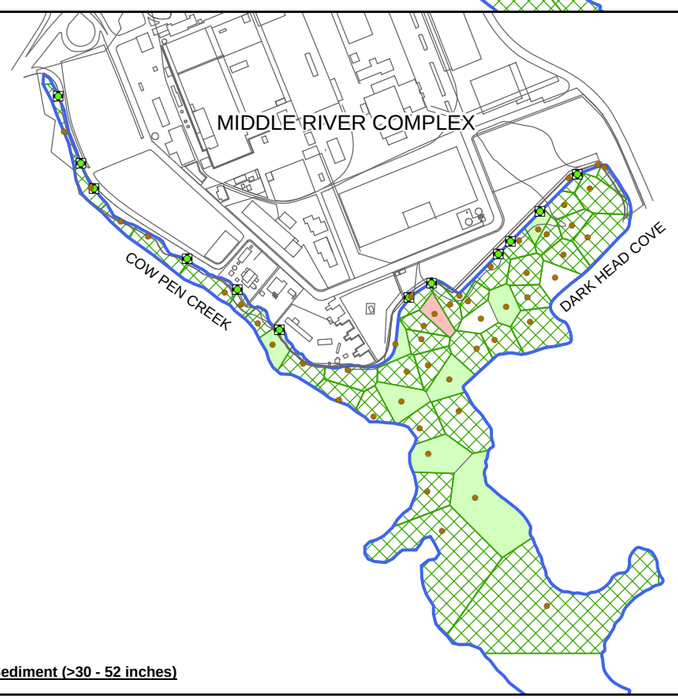
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 6
Thiessen Polygons for
Zinc in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Zinc Sample Location
- Stormwater Outfall Locations

Zinc Thiessen Polygons (mg/kg)

- Less than Background
- < or = 121
- > 121 - 459
- > 459 - 918
- > 918 - 2295
- > 2295
- Buildings/Roads
- Middle River

TEC = 121
PEC = 459
2X PEC = 918
5X PEC = 2295

Background Concentration
SD 0-6" = 327 mg/kg
SD 6-18" = 209 mg/kg
SD 18-30" = 95.5 mg/kg
SD 30-52" = 94.7 mg/kg

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 12/17/10
Checked By: L. SINAGOGA 12/17/10
Approved By:

Contract Number: 112IC02903

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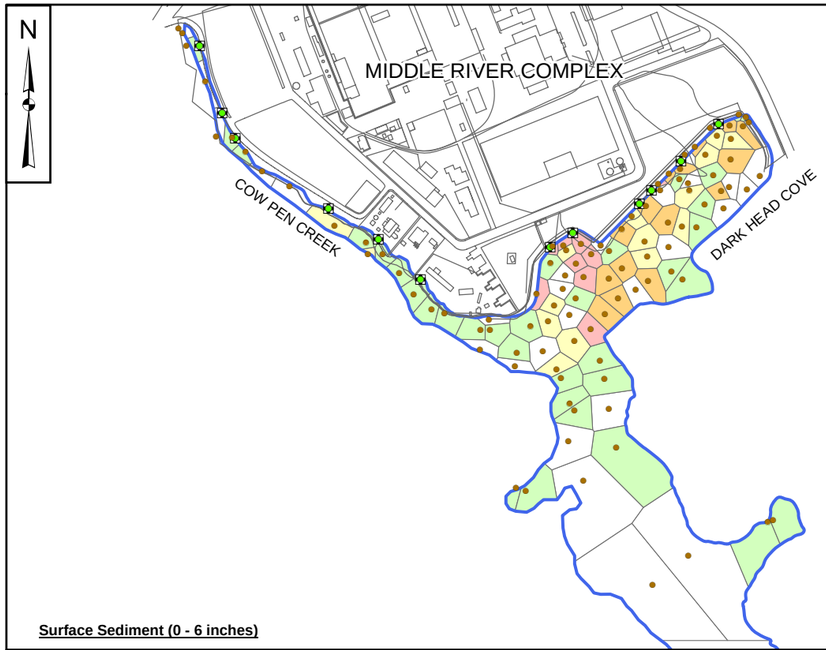
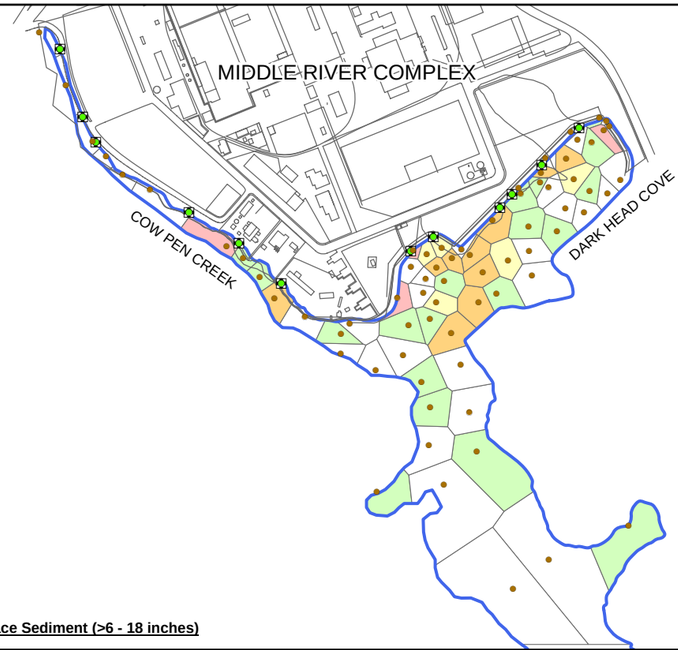
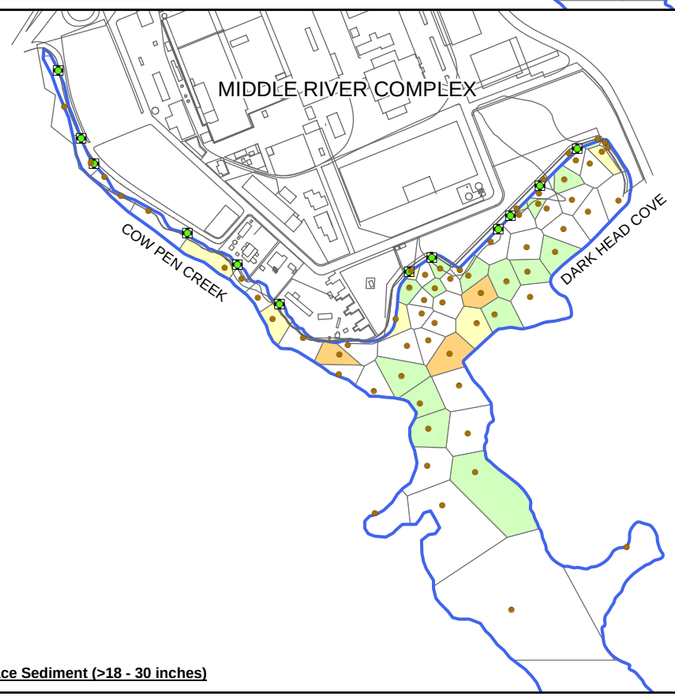


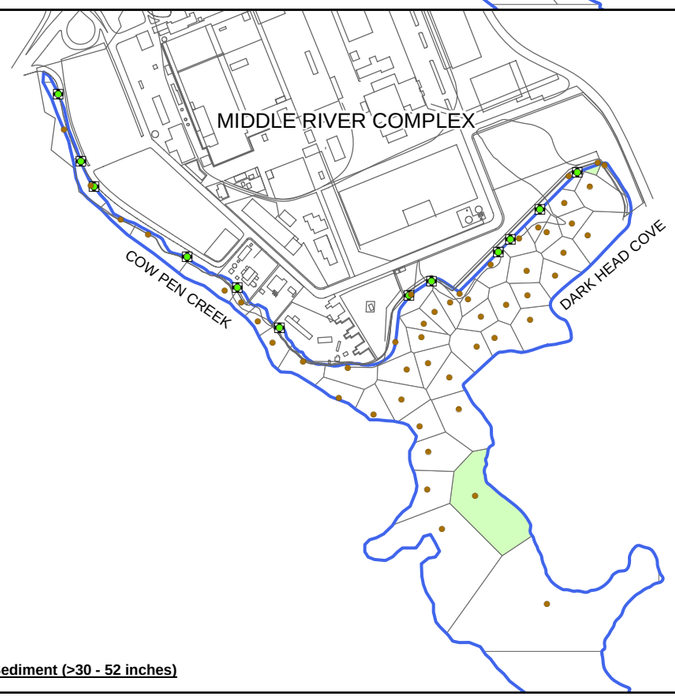
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 7
Thiessen Polygons for
Ecological Risk Assessment of
Total Aroclor in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Total Aroclor Sample Location
- Stormwater Outfall Locations

Total Aroclor Thiessen Polygons (µg/kg)

- < or = 40
- > 40 - 400
- > 400 - 800
- > 800 - 2000
- > 2000
- Buildings/Roads
- Middle River

TEC = 40
MEC = 400
2X MEC = 800
5X MEC = 2000

Categories show different intervals of chemical concentrations.

Site-specific background = ND
Regional level = 1500 µg/kg *

* Regional levels are presented on Table 4-10.

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 01/17/11
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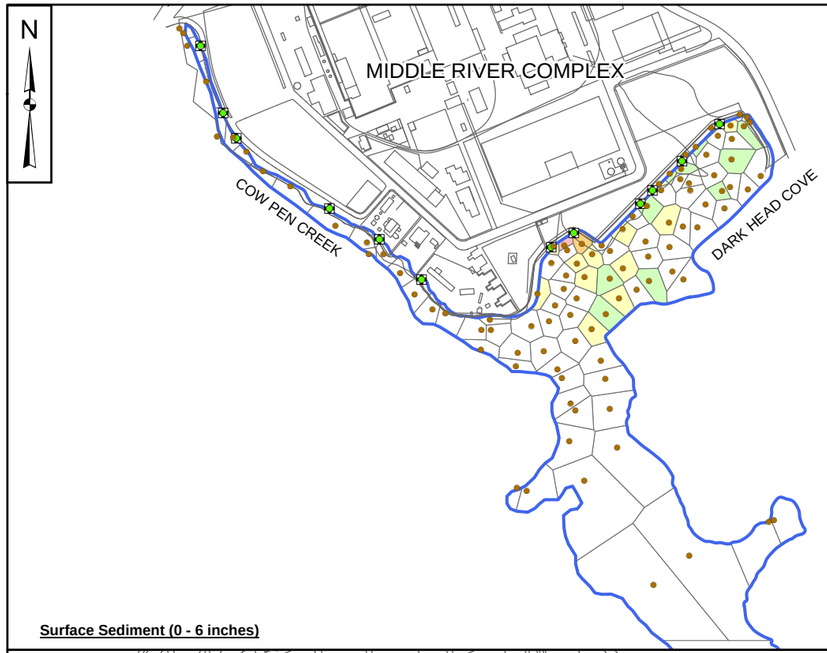
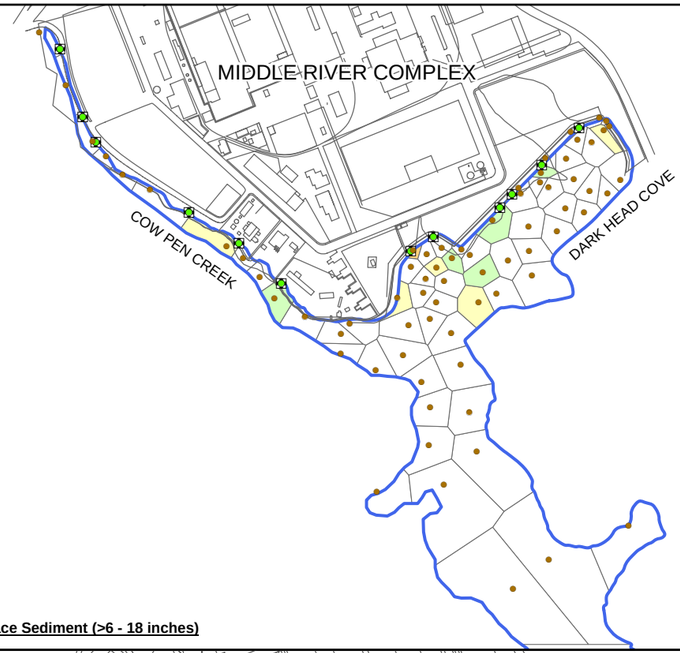
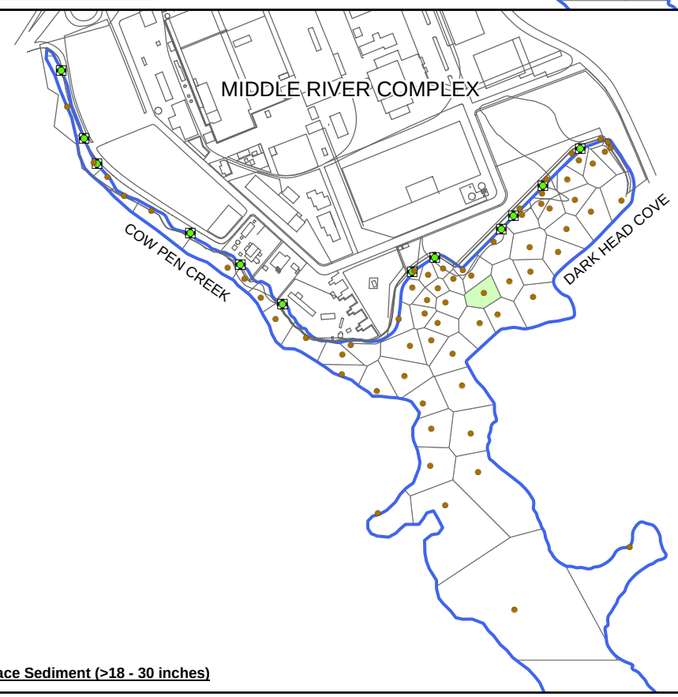


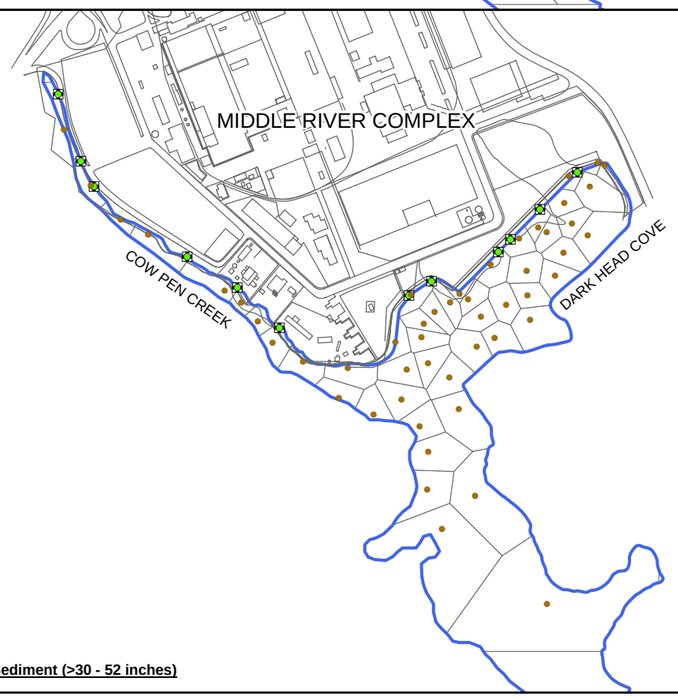
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 8
Thiessen Polygons for
Human Health Risk Assessment of
Total Aroclor in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Total Aroclor Sample Location
- Stormwater Outfall Locations

Total Aroclor Thiessen Polygons (µg/kg)

- < or = 1000
- > 1000 - 1500
- > 1500 - 10000
- > 10000 - 20000
- > 20000
- Buildings/Roads
- Middle River

Categories show different intervals of chemical concentrations.

Site-specific background = ND
Regional level = 1500 µg/kg *
EPA Soil Action Level (residential) = 1000 µg/kg
EPA Soil Action Level (industrial) = 10000 µk/kg

EPA OSWER Directive: 9355.4-01FS (July 1990).

* Regional levels are presented on Table 4-10.

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 12/20/10
Checked By: L. SINAGOGA 12/20/10
Approved By:

Contract Number: 112IC02903

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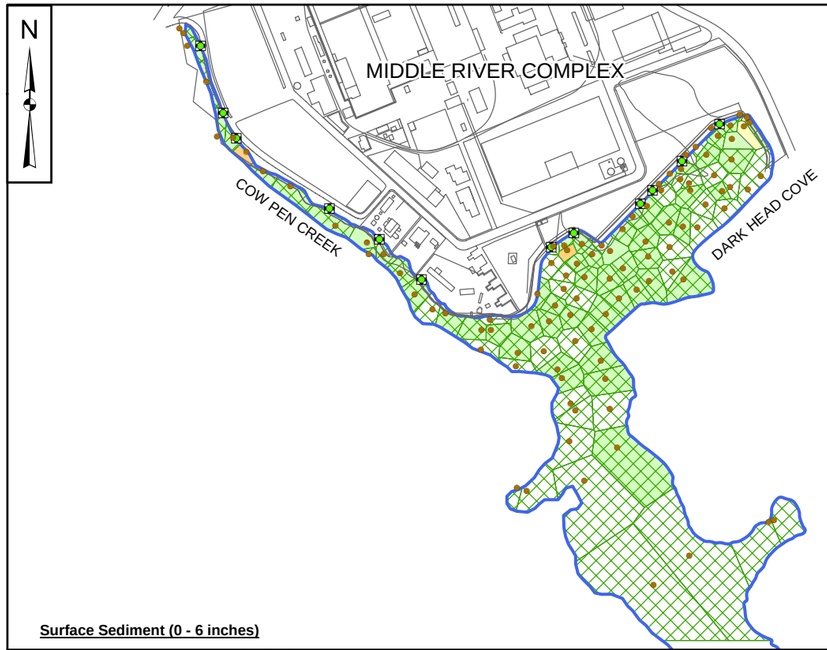
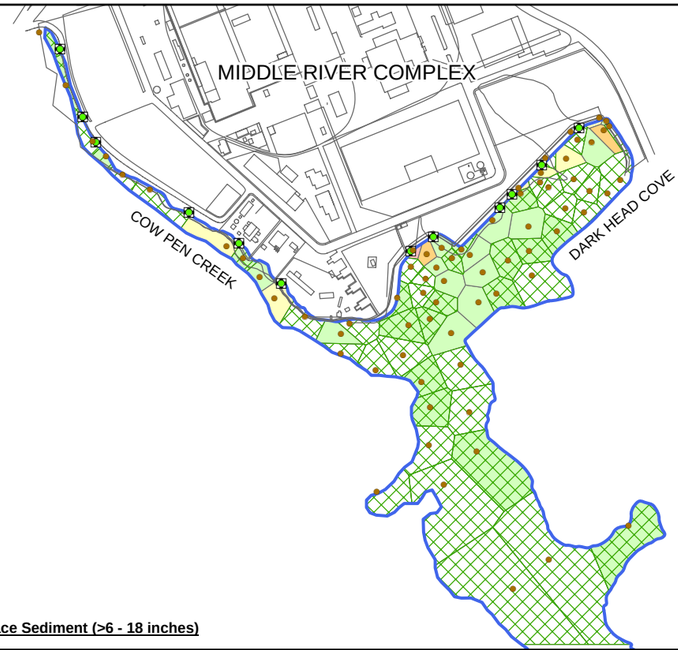
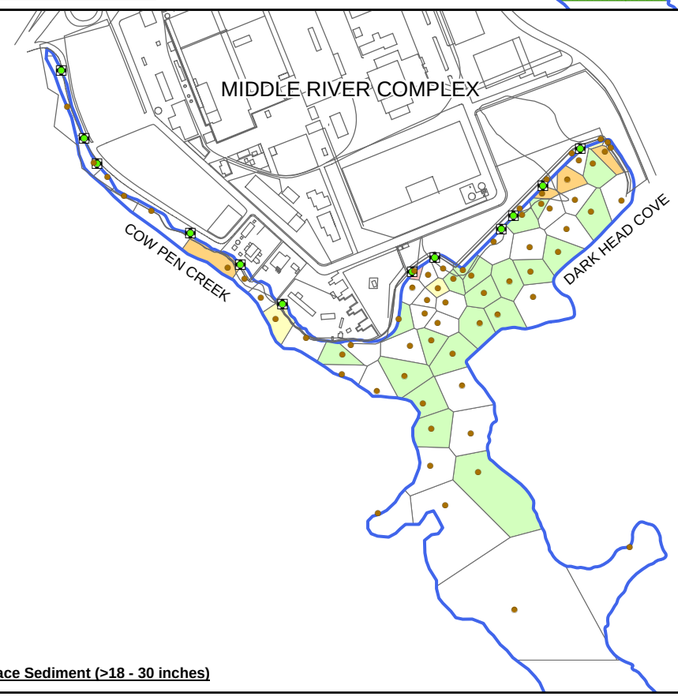


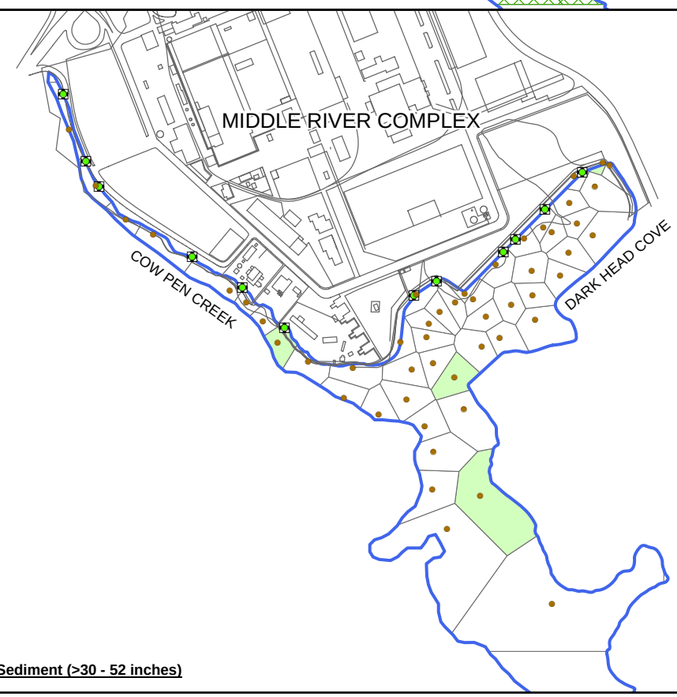
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 9
Thiessen Polygons for
Total PAHs in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Total PAH Sample Location
- Stormwater Outfall Locations

Total PAH Thiessen Polygons (µg/kg)

- Less than Background
- < or = 1610
- > 1610 - 22800
- > 22800 - 45600
- > 45600 - 114000
- > 114000
- Buildings/Roads
- Middle River

TEC = 1610
PEC = 22800
2X PEC = 45600
5X PEC = 114000

Background Concentration
SD 0-6" = 15350 µg/kg
SD 6-18" = 5060 µg/kg
SD 18-30" = ND
SD 30-52" = ND

1,080 540 0 1,080
Feet

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Checked By: L. SINAGOGA 12/17/10
Approved By:

Contract Number: 112IC02903

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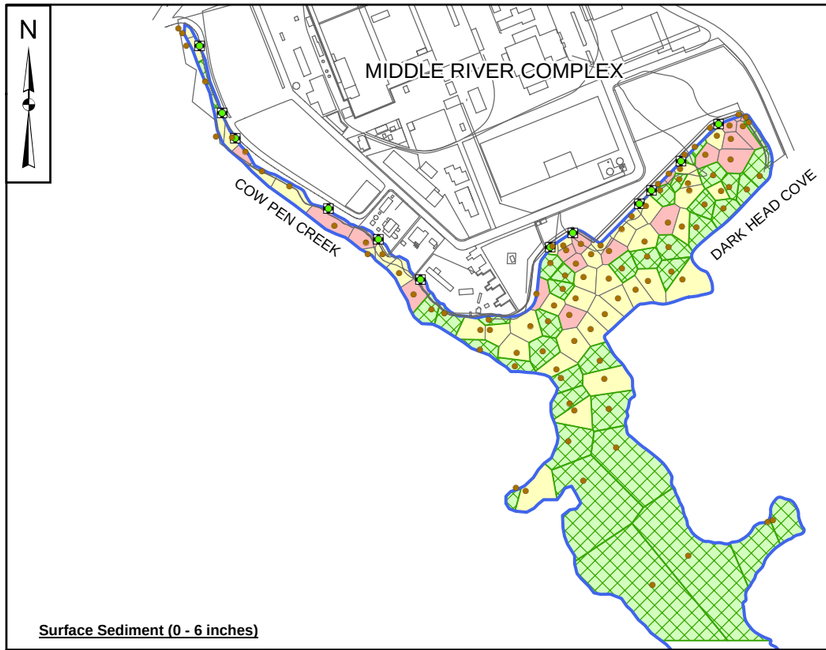
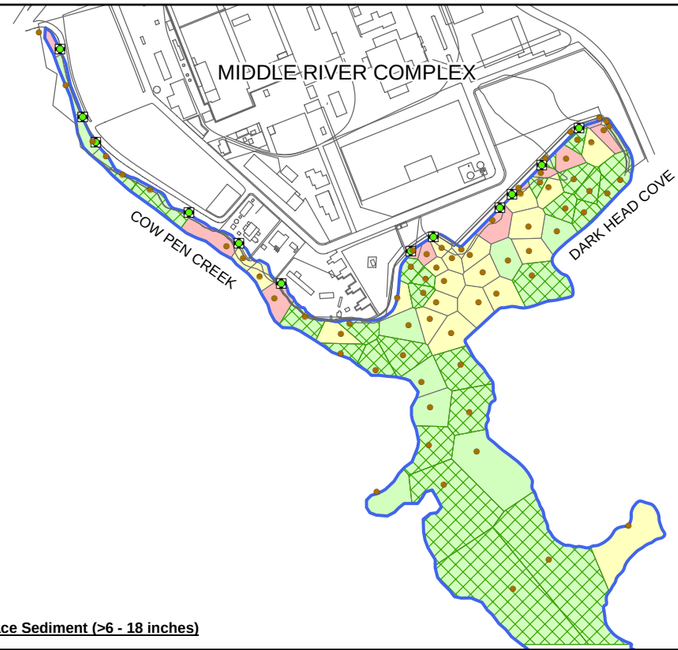
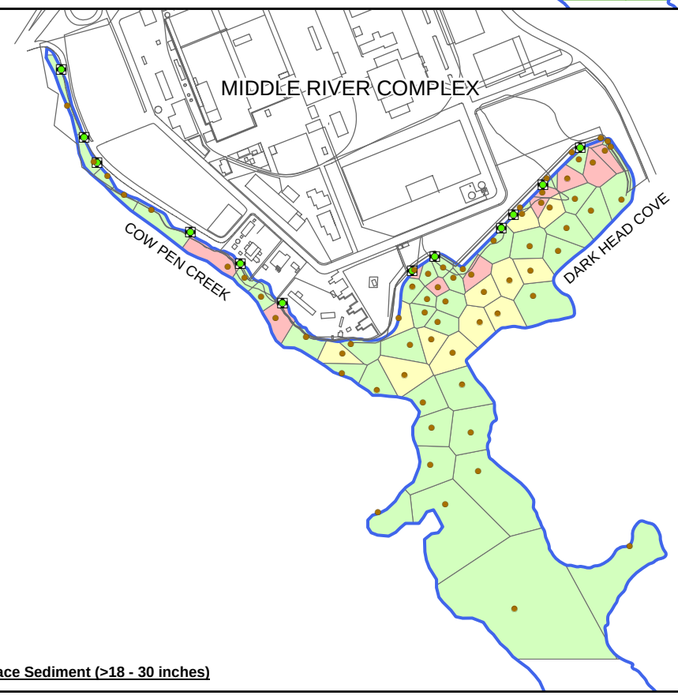


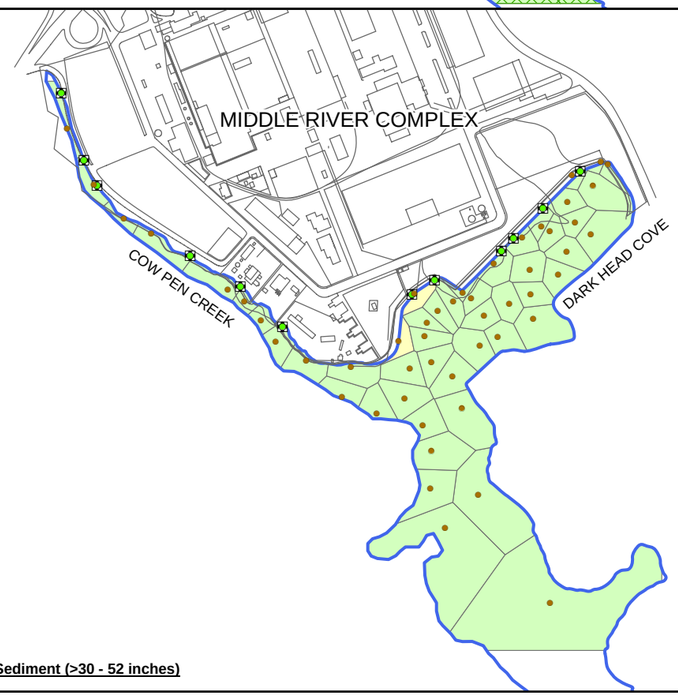
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 10
Thiessen Polygons for
Benzo(a)pyrene Equivalents
(1/2 U Used for ND Results) in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Total PAH Sample Location
- Stormwater Outfall Locations

BAP Equivalents Thiessen Polygons (µg/kg)

- Less than Background
- < or = 700
- > 700 - 1600
- > 1600
- Buildings/Roads
- Middle River

Risk Based Concentration (RBC) for
recreational user (direct contact risk)
(IE-05 cancer risk level) = 700 µg/kg

Background Concentration
SD 0-6" = approximately 700 µg/kg
SD 6-18" = approximately 100 µg/kg
SD 18-30" = ND
SD 30-52" = ND

1,080 540 0 1,080
Feet

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Checked By: L. SINAGOGA 12/17/10
Approved By:

Contract Number: 112IC02903

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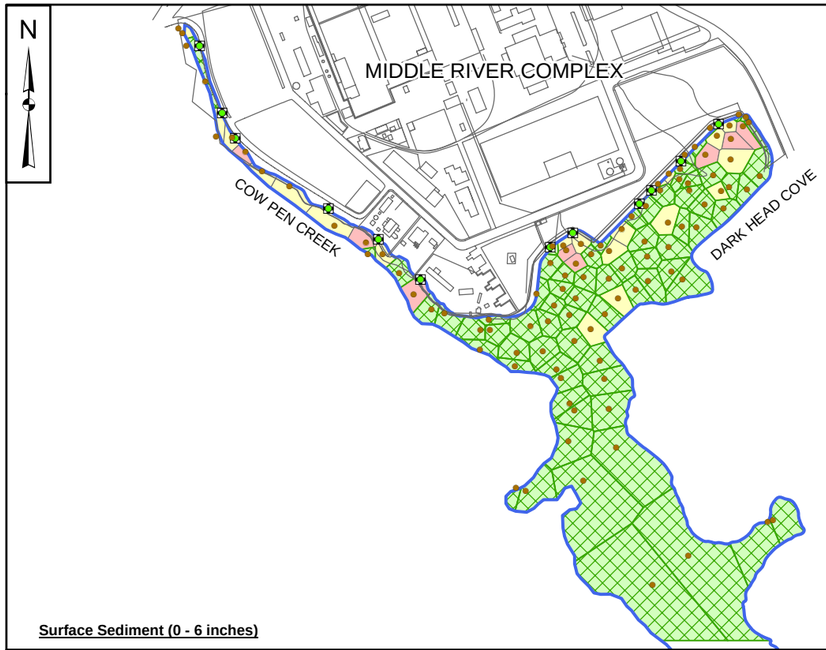
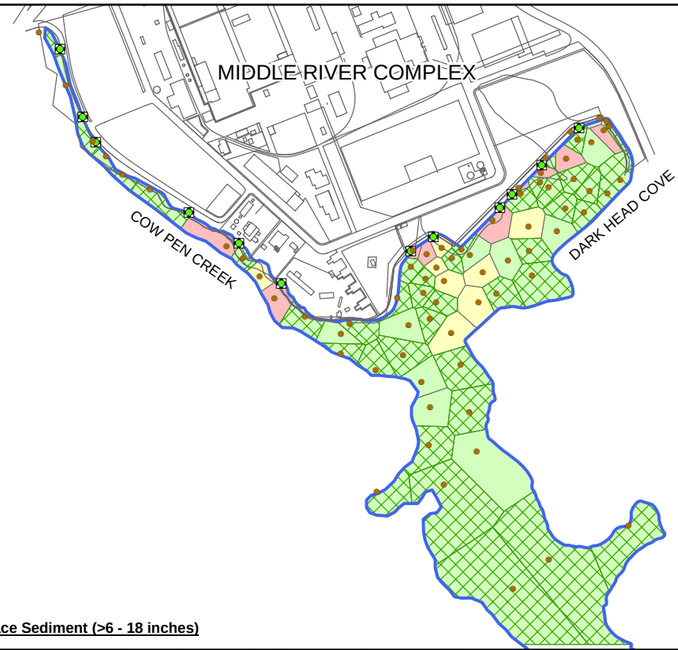
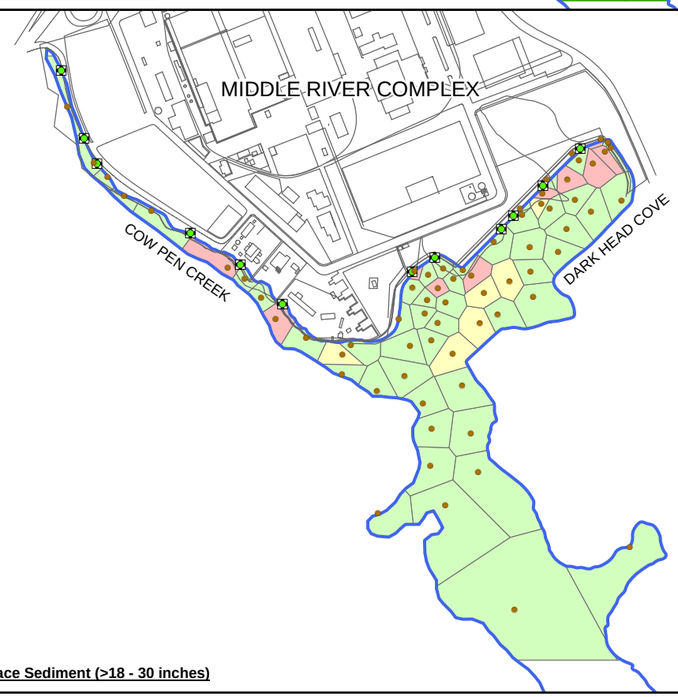
BAP_HALFND_THIESSEN_AUG2010_BKG.MXD 12/17/10 SP



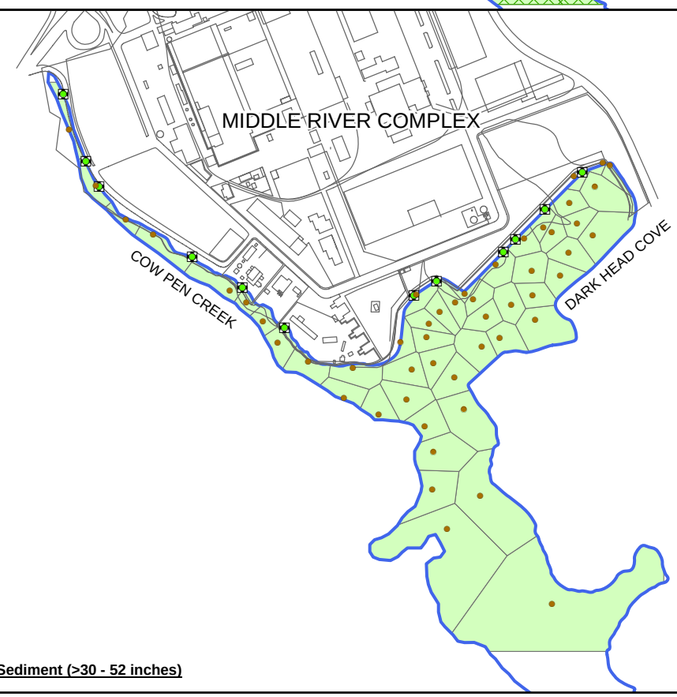
Surface Sediment (0 - 6 inches)



Subsurface Sediment (>6 - 18 inches)



Subsurface Sediment (>18 - 30 inches)



Subsurface Sediment (>30 - 52 inches)

TETRA TECH

Figure 4 - 11
Thiessen Polygons for
Benzo(a)pyrene Equivalents
(Positive Hits Only) in Sediment
Lockheed Martin Middle River Complex
Middle River, Maryland

Legend

- Total PAH Sample Location
- Stormwater Outfall Locations

BAP Equivalents Thiessen Polygons (µg/kg)

- Less than Background
- < or = 700
- > 700 - 1600
- > 1600
- Buildings/Roads
- Middle River

Risk Based Concentration (RBC) for
recreational user (direct contact risk)
(IE-05 cancer risk level) = 700 µg/kg

Background Concentration
SD 0-6" = approximately 700 µg/kg
SD 6-18" = approximately 100 µg/kg
SD 18-30" = ND
SD 30-52" = ND

1,080 540 0 1,080
Feet

Drawn By: S. PAXTON 12/17/10
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Approved By:

Contract Number: 112IC02903

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BAP_POS_THIESSEN_AUG2010_BKG.MXD 12/17/10 SP

Section 5
Summary and Conclusions

Tetra Tech, Inc (Tetra Tech) completed additional characterization of sediment from Dark Head Cove, Cow Pen Creek, and the confluence of these two water bodies to identify and describe the nature and extent of impacts resulting from current and past Middle River Complex (MRC) activities. The objectives of this sediment and biological sampling program were to finalize characterization of Dark Head Cove and Cow Pen Creek with respect to area-wide environmental conditions, to establish the basis for risk assessment and, if necessary, for the evaluation of remedial action alternatives. This section presents an overall summary and the conclusions of this investigation.

5.1 NATURE AND EXTENT OF CONTAMINATION

This nature and extent of contamination summary includes a discussion of the previous sediment data collected at the site (in 2005 and 2008), as well as of the sediment data collected in 2010. The 2010 sediment investigation focused on areas where insufficient data are available from previous investigations. Sediment samples were collected in 2010 from 24 site locations and three reference locations. Sediment samples were collected from 0–6, 6–18, 18–30, and 30-52 inches below the surface water/sediment interface. Sediment samples were analyzed for polycyclic aromatic hydrocarbons, polychlorinated biphenyls (PCBs), and metals. In addition, some sediment samples were analyzed for acid volatile sulfides (AVS)/simultaneously extracted metals (SEM).

The highest concentrations of total polycyclic aromatic hydrocarbons (PAHs) were in samples collected along the shoreline of the Middle River Complex and in Dark Head Cove. In surface sediment, the highest polycyclic aromatic hydrocarbons concentrations were in samples collected from the eastern portion of Dark Head Creek (near Martin State Airport [MSA]) and in the middle of the cove adjacent to the Middle River Complex. Polycyclic aromatic hydrocarbon concentrations tend to be higher in the middle two depth intervals than in surface sediment,

although the upper reaches of Cow Pen Creek demonstrate elevated polycyclic aromatic hydrocarbon concentrations in the 0–6, 6–18, and 18–30 inch intervals. Polycyclic aromatic hydrocarbon concentrations in excess of the screening level for total polycyclic aromatic hydrocarbons were also detected in a few samples from the middle two intervals in a small area near Outfall 09. Overall, the results for polycyclic aromatic hydrocarbon are consistent with previous findings.

Total Aroclor concentrations were highest in surface sediments, and decreased with increasing depth. Surface sediment polychlorinated biphenyl concentrations were highest in the middle of Dark Head Cove and adjacent to the shoreline of the Middle River Complex. The areas with the most elevated concentrations were well bounded by other samples. These findings are similar to the conclusions of the previous investigation.

Several metals were detected in sediment at concentrations in excess of screening values, but concentrations of most metals tend to be less than or only slightly greater than regional background concentrations. Metals of particular interest include cadmium, chromium, copper, lead, mercury, and zinc. However, cadmium and chromium generally had the greatest (as compared to the other metals) concentrations with respect to their sediment guidelines.

The greatest concentrations of metals in Dark Head Cove were generally found in samples collected from the >6–18 inch and >18–30 inch intervals, which indicates that the sediment with higher concentrations is being buried under cleaner sediments. Some exceptions were observed in Cow Pen Creek, which is to be expected because the deposition rate (as estimated from the age-dating analysis) is probably lower in the creek, and the scour appears to be greater than in the cove.

5.2 BIOAVAILABILITY PARAMETERS

Various samples were collected and analyses conducted to evaluate whether the chemicals in the sediment might be bioavailable to ecological receptors. Tasks performed include comparison of sediment acid volatile sulfides to simultaneously extracted metals, sediment-porewater chemistry analyses, and a benthic macroinvertebrate-community study. Sediment samples from seven locations were collected from each depth interval and analyzed for acid volatile sulfides/simultaneously extracted metals, an index of potential bioavailability.

The simultaneously extracted metals analysis included the metals cadmium, chromium, copper, lead, nickel, silver, and zinc. In general, concentrations of acid volatile sulfides were higher than simultaneously extracted metals in most samples, indicating the simultaneously extracted metals are not expected to be bioavailable or directly toxic to benthic invertebrates. The acid volatile sulfides/simultaneously extracted metals data will be further evaluated in the ecological risk assessment (ESA).

Sediment porewater was extracted from a subset of the collected sediments to determine the equilibrium concentrations of chemicals of potential concern (COPC) in porewater both horizontally and vertically near the Middle River Complex. Porewater concentrations of various metals (arsenic, cadmium, selenium) and polycyclic aromatic hydrocarbons exceeded surface water ecological screening-values at all three intervals in one or more samples. Porewater concentrations of lead exceeded surface water ecological screening-values in one interval.

Aroclor-1260 concentrations exceeded surface water ecological screening-values in all porewater samples in which it was detected, indicating a potential for ecological risk. Aroclor-1260 was reported as not detected in the 18–30 inch interval, however the detection limit for Aroclor-1260 is greater than its screening level. Although this may introduce uncertainty, biological activity is typically minimal below depths of 18 inches in sediment environments such as those at the Middle River Complex. The significance of these results will be discussed in detail in the ecological risk assessment.

Benthic macroinvertebrate samples were collected to help evaluate the status of benthic communities residing in sediment at the site to get a direct measure of the bioavailability of the chemicals in the surface sediment. Benthic invertebrate samples were collected from two background/reference locations to be used to evaluate the results from site samples. One local reference site (Marshy Point) had relatively good benthic conditions. The other local reference site (Bowleys Quarters) and the proposed reference site (Middle River Downstream) had indications of some type of stressful conditions for the benthic macroinvertebrates. All of the test sites had indications of stress to benthic organisms. The results of the macroinvertebrate sampling will be further evaluated and discussed in the ecological risk assessment (ERA).

5.3 OTHER EVALUATIONS

Data were collected as part of the sampling investigation in support of other evaluations to better characterize the site and aid in preparing the feasibility study if remedial action is necessary. *In situ* porewater samples were collected for analysis for volatile organic compounds (VOCs) to determine whether volatile organic compounds in groundwater are discharging through the sediment in Dark Head Cove and Cow Pen Creek, and if so, at what levels. Volatile organic compounds were detected in sediment porewater, but all concentrations were less than their respective screening values (except for carbon disulfide in one sample).

Volatile organic compounds in sediment porewater in two samples collected in Dark Head Cove and one sample from Cow Pen Creek indicate groundwater discharge is affecting porewater. However, the detected concentrations were extremely low and porewater recovery was very slow, suggesting that the low permeability soil underlying the site and identified in sediment and the low groundwater flux limit groundwater discharge. This result is consistent with current modeling of groundwater discharge to surface water at the Middle River Complex.

Some of the sediment samples were analyzed for alkylated polycyclic aromatic hydrocarbons to provide data on the source(s) of polycyclic aromatic hydrocarbons. The results of the alkylated polycyclic-aromatic hydrocarbon analyses indicate the types and concentrations of monoaromatic hydrocarbons (MAH) and polycyclic aromatic hydrocarbons identified in the sediment are consistent with those found in urban soils and associated runoff. Although stormwater samples did not contain detectable levels of polycyclic aromatic hydrocarbons, the sediment associated with the stormwater display a signature similar to that found in Cow Pen Creek and Dark Head Cove sediments, which is deemed associated with urban runoff. This indicates that the water bodies adjacent to the Middle River Complex receive contributions of polycyclic aromatic hydrocarbons from other on-site sources, such as Eastern Avenue and other roadways.

Age-dating analyses measured radioactive decay to estimate sedimentation rates for Dark Head Cove, Cow Pen Creek, and the confluence of the two water bodies downstream of the site. These analyses indicate that the highest sedimentation rates are found in the confluence of Dark Head Cove and Cow Pen Creek downstream of the site, which is not surprising as it receives

contributions from two sources. The next highest sedimentation rate is found in Dark Head Cove, and the lowest sedimentation rate among the three sites is at the mouth of Cow Pen Creek.

These findings are consistent with chemical analyses where locations with higher deposition rates generally had impacts at deeper intervals than in Cow Pen Creek, where the deposition rate is the lowest and sediment scour the highest. A bathymetric survey of the study area mapped in high detail the morphology of Dark Head Cove and Cow Pen Creek, as well as their confluence (Dark Head Creek). Dense vegetation in Cow Pen Creek affected the data collection in portions of the creek. Adequate data were obtained to support dredge- or capping-design efforts, design dredge cuts, or to calculate dredge and capping volumes. Bathymetric data were also used as input for hydraulic modeling.

A hydraulic analysis evaluated possible sediment and consequent contaminant transport in the Cow Pen Creek and Dark Head Cove watersheds. Using 100-year storm events and historical data, the model indicates that the sediment bed is stable in the area of interest, except for the upstream area of Cow Pen Creek. Since this area is susceptible to erosion during high rainfall-generated flow events, the potential for long-term accumulation of contaminates in the area is limited. Pre-design testing was performed on sediment collected from Dark Head Cove, Cow Pen Creek, and Dark Head Creek. Testing included treating sediment with a range of polymer adjuncts that enhance sediment dewatering, followed by dewatering pilot-tests using geotextile-fabric bags. The tests identified the dual polymer system (Solve 426 and Solve 127) and sediment-dewatering tubes constructed with GT500 geotextile fabric as a viable approach for dewatering dredged sediment before disposal.

The results of the additional characterization and sediment sampling investigation will be used as input to update the sediment risk-assessment for the Middle River Complex and in support of a feasibility study to establish the basis of cleanup goals and potential remediation alternatives if remediation is ultimately necessary.

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Section 6
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APPENDIX A—
FIELD DOCUMENTATION

Table A-1
Pore Water Field Measure Measurements
Middle River Complex

Sample ID	Temperature (°C)	Conductivity (µs/cm)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH
DHC-PW-VOC-1	30.27	7825	3.88	0.84	7.22
DHC-SW-VOC-1	29.68	8319	4.19	3.41	7.34
DHC-PW-VOC-2	30.7	8519	4.21	3.7	7.99
DHC-SW-VOC-2	30.35	8541	4.25	4.08	8.02
DHC-PW-VOC-3	NA	NA	NA	NA	NA
DHC-SW-VOC-3	29.25	8343	4.23	3.03	7.2
DHC-PW-VOC-4	28.96	8064	4.11	1.8	7.57
DHC-SW-VOC-4	29.17	8309	4.22	2.62	7.41
DHC-PW-VOC-5	NA	NA	NA	NA	NA
DHC-SW-VOC-5	29.21	8314	4.21	3.02	7.32

°C = degrees Celsius
µs/cm = microsiemens per centimeter
ppt = parts per thousand
NA = no data collected inadequate sample volume

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FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**	**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**	**Task #: N/A**
City:	**Middle River** **State:** **MD** **Zip:**	**Date:** 8/20/10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: Times unavl. (Early Morning) ~9:25 AM / ~20950
Station ID #: SD-83
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 6"
Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-83 Coring Time: Time unavl. ~935/CDD 9/7/10 Consult boring log Penetration Depth: 40" Core Recovery: 32"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

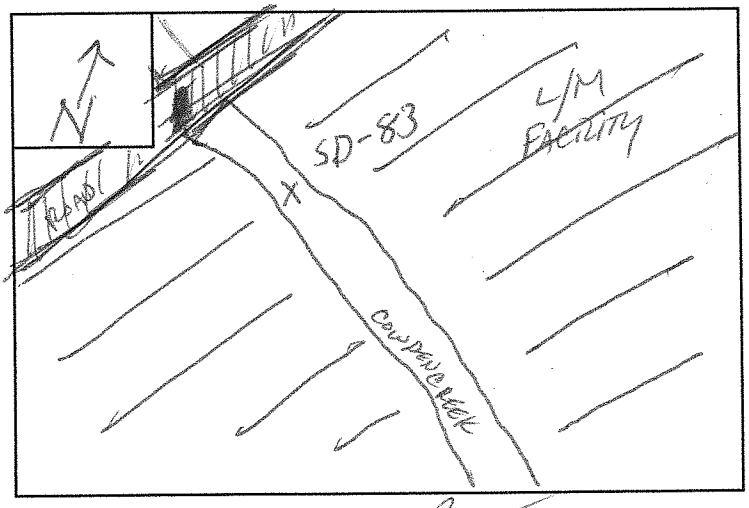
DGPS DATA

Operator: MKM
File Name: SD-83-1
Lat / N: 605919.09
Lon / E: 1471275.57
PDOP: 5 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH 0501469344

COMMENTS / NOTES

Sample location ≈ 30ft from designated site as site was located on land



Preparer's Initial: MRW

9/7/10 NA 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/20/10	SD-83	2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : Middle River

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / ~~Manually-pushed boring~~

WATER LEVELS : 6"

START : 1000 END : 1040 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					Fine to course grain sand, no odor. organic debris wet + firm. color: 10YR - 4/4	SD-83-SS- @ 1026 pp metals, PAHs, PCBs
5"					Fine to course grain sand w/fine gravel. wet + Firm color: ~~chart #~~ 2.5Y-2.5/1 no odor	SD-83-01 @ 1027 pp metals, PAHs, PCBs
8"					clay w/silt, some fine grain sand, woody debris, organic staining around debris. color: 10YR - 4/4 wet + soft no odor	SD-83-02 @ 1029 pp metals, PAHs, PCBs
						SD-83-04 @ 1031 pp metals, PAHs, PCBs
						04 done in 30"-32"
32"						

MKM 8-27-10

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FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8 / 20 / 10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 0850 – 0905
Station ID #: SD-84
Weather: (Clear) Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 7" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-84 Coring Time: 0900 Penetration Depth: ~~30"~~ 32" MRW Core Recovery: 25"
Collection Method: Ponar / Vibracore / (Manual) Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

MRW

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

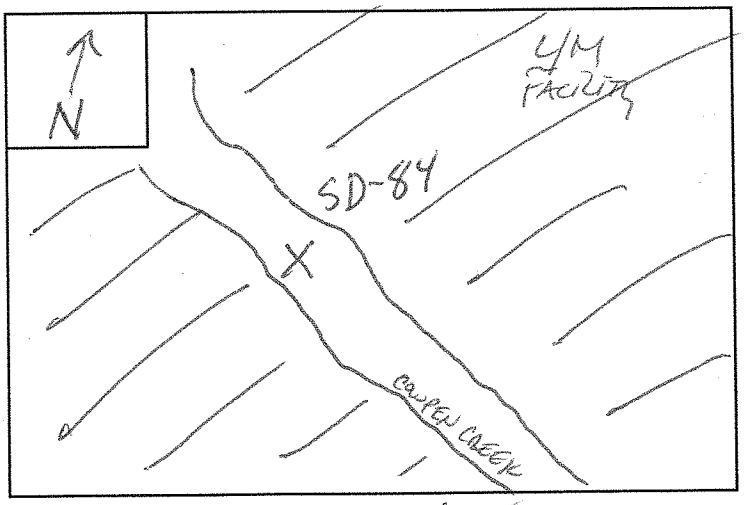
DGPS DATA

Operator: MKM
File Name: SD-84-1
Lat / N: 605417.64
Lon / E: 1471562.62
PDOP: 5 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH 0501469344

COMMENTS / NOTES

Sample location ≈ 30 ft from designated site as site was located on land



Preparer's Initial: MRW

9/7/10 MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/20/10	SD-84	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: Middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / ~~Manually-pushed boring~~
WATER LEVELS: 7"
START: 1055 END: 1115 LOGGER: MRM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					Fine to course grain sand w/ Little silt, organic debris + staining. wet, Firm - no odor color: 10YR - 4/2	SD-84-SS @ 1103 PP metals, PAHs, PCBs
						SD-84-01 @ 1105 PP metals, PAHs PCBs
6"					Clay w/silt + fine grain sand, organic debris + staining Throughout. moist, soft, no odor color: 10YR - 3/2	SD-84-02 @ 1107 PP metals - PAHs PCBs.
25"						

MM 9-27-10

NORMANDEAU ASSOCIATES
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rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/19/10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)** Field Team Safety Coordinator: **MKM / RMK**

Field Crew: MRW, CDD, HS Arrival/Departure Times: 1510 – 1525

Station ID #: SD-85 Weather: (Clear) Cloudy Rain Other _____

Photos: Y (N) Roll No./Exposure No.: _____ Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 1' 4" Tide: Ebb (Flood) Low Slack High Slack Other _____ NA

PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-85 Coring Time: 1520 Penetration Depth: 38" Core Recovery: 36"

Collection Method: Ponar / Vibracore / (Manual) Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW

File Name: SD-85-1

Lat / N: 605175.86

Lon / E: 1471876.21

PDOP: 4 SV

Coordinate Units: Lat/Lon (US Survey Feet)

Datum: NAD1983 (Y) N Other _____

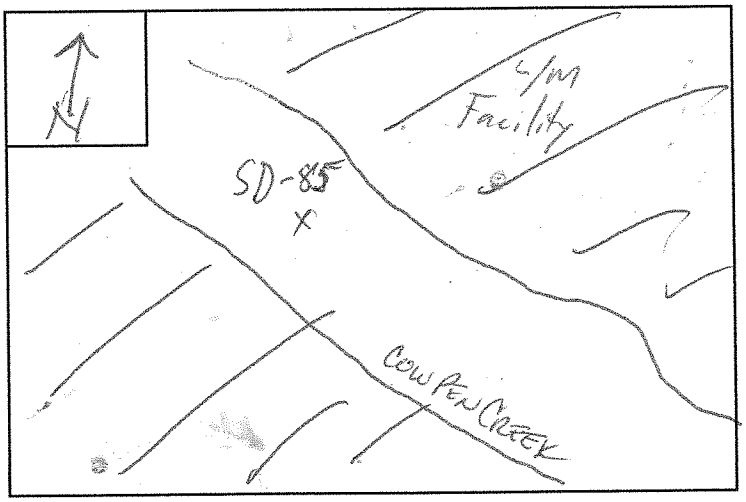
Proj.: MD 1900

GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

45 ft from SD-85 Forward progress stopped due to down trees.

Preparer's Initial: MRW



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET 2 OF 2
22007.000	8/19/10	SD-85	

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : middle River

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS : 1' 4"

START : 1615 END : 1700 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					med to course sand + fine gravel strong organic odor, wet + soft color: chart 1 for Gley 2.5/N ↓	SD-85-SS @ 1632 PPmetals, PAHs, PCBs, TOC AVS, SEM
5"					moist + Firm. no odor color: 2.5Y-3/2 clay w/silt, Trace root materials through out	SD-85-01 @ 1634 PPmetals, PAHs, PCB, TOC AVS, SEM
						SD-85-02 @ 1636 PP metals. PAHs, PCBs, TOC AVS, SEM.
						SD-85-04 @ 1638
						SD-85-04 sampled from 30"-34"
34"						

QC 9-27-10

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/18/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1430 - 1455
Station ID #: SD-86
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA
Water Depth: 1'2" Tide: Ebb Flood Low Slack (High Slack) Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-86 Coring Time: 1450 Penetration Depth: 5" Core Recovery: 56"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

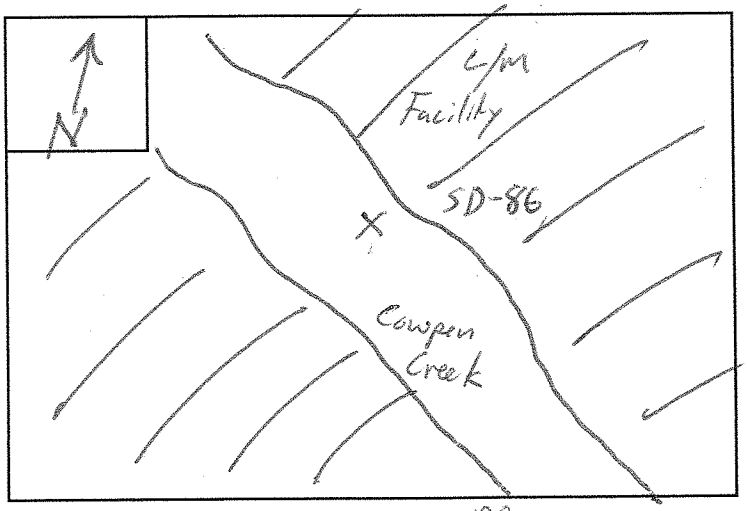
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MRW
File Name: SD-86-1
Lat / N: 604772.90
Lon / E: 1472421.70
PDOP: N/A

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1983
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



QC MRW 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-86	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 1'2"
START: 1515 END: 1535 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet + soft, SILT w/fine grain sand + minor organic debris + odor. Color: ~~gley~~ gley 1 2.5/10Y	SD-86-SS @ 1520 PP metals, PAHs, PCBs,
						SD-86-01 @ 1522 PP metals, PAHs, PCBs
						SD-86-02 @ 1524 PP metals, PAHs, PCBs
24"					wet + soft, clay w/silt no odor, Color: gley 1 - 4/10Y	SD-86-04 @ 1526 PP metals, PAHs, PCBs
55"						

MKM 9-27-10

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FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**	**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**	**Task #: N/A**
City:	**Middle River** **State:** **MD** **Zip:**	**Date:** 8/17/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: AIS COD MRW
Arrival/Departure Times: 1605 - 1630
Station ID #: SD-87
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 E

FIELD DATA
Water Depth: 2' 6" Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-87 Coring Time: 1610 Penetration Depth: 60" Core Recovery: 56.5"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

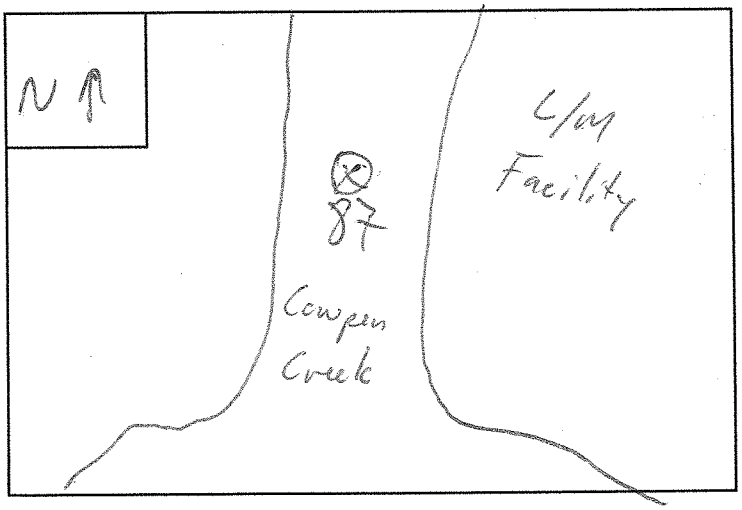
SAMPLE/PUSH #2
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MK
File Name: SD-87-1
Lat / N: 604404.07
Lon / E: 1472762.62
PDOP: 7 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES



Preparer's Initial: MM

QC MM 9-27-10

CORED ON 8/17/10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-87	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: ~~Cow Pen Creek~~ middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 2' 6"
START: 0845 END: 0906 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					no odor, very wet, very soft silt w/fine grained sand, minor organic debris, color: chart 1 for gley 3/N	SD-87-SS @ 0855 PP metals, PAH, PCB's, TOC AVS, SEM — ALK, PAH SD-87-01 @ 0857 PP metals, PAH, PCB, TOC AVS, SEM, — ALK, PAH SD-87-02 @ 0859 PP metals, PAH, PCB, TOC AVS, SEM — ALK, PAH
31"					wet, soft, clay, no odor chart 1 for gley 4/10Y	SD-87-04 @ 0901 PP metals, PAH, PCB AVS, SEM.
57"						

MK 9-27-10

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/19/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1055 - 1110
Station ID #: SD-88
Weather: Clear / Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 10'6" Tide: Ebb Flood (Low Slack) High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-88 Coring Time: 1105 Penetration Depth: 5' Core Recovery: 58"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

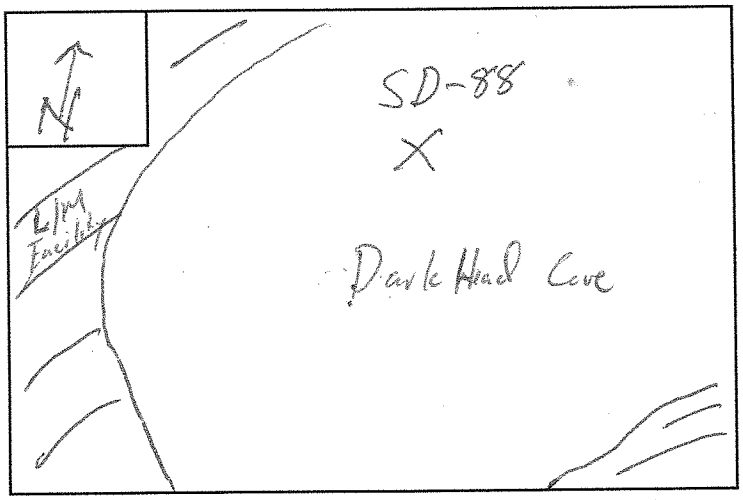
DGPS DATA

Operator: MRW
File Name: SD-88-1
Lat / N: 604625.33
Lon / E: 1473918.50
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: 0220139040 (TSC1) Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



MRW 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-88	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION : middle River
ELEVATION : N/A
DRILLING CONTRACTOR : Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED : PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS : 10.16'
START : 1120 END : 1150 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet, very soft, no odor, silt w/ little clay color: chart 1 for Gley 2.5/10Y	SD-88-SS @ 1129 PPmetals, PAHs, PCBs TOC AVS, SEM - 0 Headspace
						SD-88-01 @ 1131 PPmetals, PAHs, PCBs, TOC AVS, SEM - 0 Headspace
						SD-88-02 @ 1133 PPmetals, PAHs, PCBs, TOC AVS, SEM - 0 Headspace
						SD-88-04 @ 1135 PPmetals, PAHs, PCBs, AVS, SEM, [redacted] 0-Headspace
36"					wet, soft, no odor. color: chart 1 for Gley 4/10Y clay w/silt.	
58"						

MKM 9-27-10

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/19/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1145 - 1155
Station ID #: SD-89
Weather: (Clear) Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 10' 5" Tide: Ebb (Flood) Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-89 Coring Time: 1150 Penetration Depth: 5' Core Recovery: 59"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

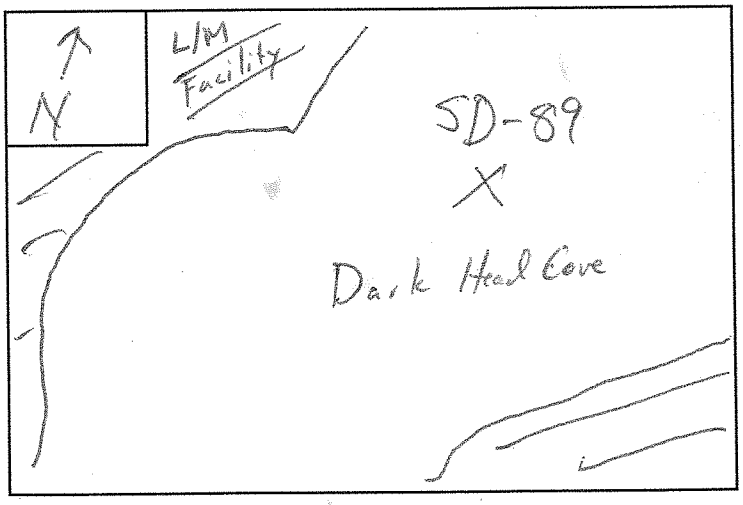
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW
File Name: SD-89-1
Lat / N: 604589.96
Lon / E: 1474248.53
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES



Preparer's Initial: MRW

MRW 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-89	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 10'5"
START: 1210 END: 1230 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet, very soft, slight organic odor, silt w/ little bit of clay. Color: chart 1 for Gley 2.5/10Y	SD-89 -SS @ 1225 PP metals, PAHs, PCB TOC AVS, SEM SD-89-01 @ 1227 PP metals, PAHs, PCBs, TOC AVS, SEM SD-89-02 @ 1229 PP metals, PAHs, PCBs, TOC AVS, SEM. SD-89-04 @ 1221 PP metals, PAHs, PCBs AVS, SEM
32"					clay silt w/ 40% mottling. Color: chart 1 for Gley 4/10Y - mottles 5YR 4/4. no odor	
59"						

DC NM 9-27-10

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rev:11/08

FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/17/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MKM, HIS CO1)
Arrival/Departure Times: 0903 - 0927
Station ID #: SD-90
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.: 1
Wind Conditions (Speed/Direction): 10-15 W

FIELD DATA
Water Depth: 9' 8"
Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-90 Coring Time: 0920 Penetration Depth: 4' 3" Core Recovery: 4' 2"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

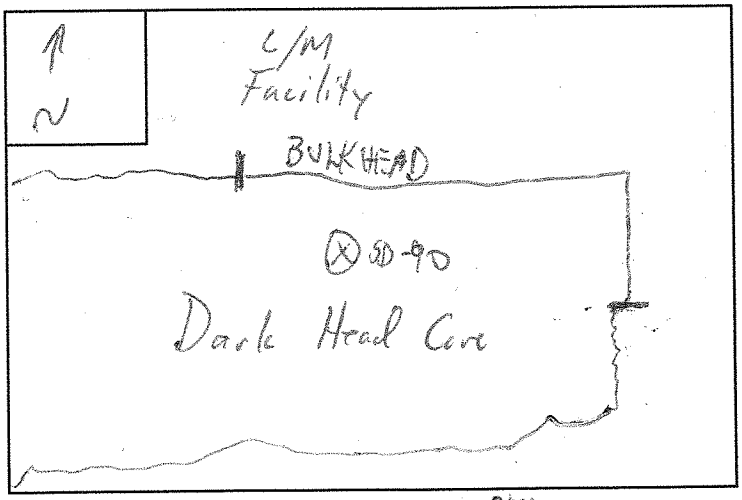
SAMPLE/PUSH #3
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: SD-90-1
Lat / N: 605397.69
Lon / E: 1474043.15
PDOP: 6.3 V3

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501419344

COMMENTS / NOTES

Preparer's Initial: MKM



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-90	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : Darkhead Cove

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS : 9'8"

START : 0940 END : 1030 LOGGER : HIS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Very Wet Very Soft Silt, slight hydrocarbon odor Chart for 5Y 3/10y	SD-90-SS sampled at 1005 hrs for P.P. Metals, PAH, PCB, TOC, Alk. PAH, Acid Volatile Sulfide / Simultaneously Extracted Metals SD-90-01 - sampled at 1007 hrs for P.P. Metals, PAH, PCB, TOC Alk. PAH, AVS/SEM SD-90-02 - sampled at 1020 hrs for P.P. Metals, PAH, PCB, TOC Alk. PAH, AVS/SEM
36.0"					Wet and Soft Clay with fine grain sand Chart 7.5 YR 3/2 NO odor	SD-90-04 - sampled at 1030 hrs for P.P. Metals, PAH, PCB AVS/SEM
51.0"						

9-71-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/17/10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: MRW ITIS CDD
Arrival/Departure Times: 1016-1030
Station ID #: SD-91
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): 0-5 NW

FIELD DATA
Water Depth: 3' 6" Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-91 Coring Time: 1025 Penetration Depth: 17" Core Recovery: 16"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

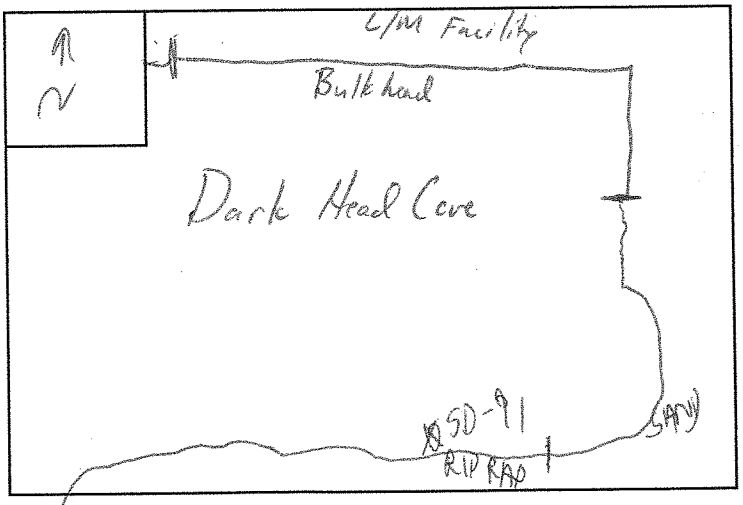
SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: SD-91-1
Lat / N: 6051502
Lon / E: 1475138.98
PDOP: 6.5V
Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040~~ (TSC1) Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MKM



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-91	2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION : Dankhead Cove
ELEVATION : N/A
DRILLING CONTRACTOR : Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED : PVL or ~~Rossfelder~~ VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS : 3' 6"
START : 1100 END : 1130 LOGGER : HES

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Moist Soft Silt with fine sand slight hydrocarbon odor Chart 1 Longley 3/10y	SD-91-SS - sampled at 1125 hrs for P.P. Metals, PAH, PCB
10.0"						SD-91-01 - sampled at 1130 hrs for P.P. metals, PAH, PCB
					Slightly Moist Hard Red c/A-y Chart 2.5yR 3/4 NO odor	
16.5"						

MWM 9-27-10

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FIELD DATA SHEET

Page 1 of 2

Project Name:	TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX				**Proj. #:** 22007.000
Site Name:	Dark Head Cove / Dark Head Creek / Cow Pen Creek				**Task #:** N/A
City:	Middle River	**State:** MD	**Zip:**		**Date:** 8/17/10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: HLS MRM CDD
Arrival/Departure Times: 1323 - 1423
Station ID #: SD-92
Weather: Clear Cloudy Rain Other ____
Photos: (Y) N Roll No./Exposure No.: ~~____~~ NA
Wind Conditions (Speed/Direction): CALM

FIELD DATA
Water Depth: 3'6" / 4'3" / 6'9"
Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-92 Coring Time: 1335 Penetration Depth: 5" Core Recovery: 5"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: SD-92 Coring Time: 1353 Penetration Depth: 14" Core Recovery: 14"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3
Core ID#: SD-92 Coring Time: 1417 Penetration Depth: 5" Core Recovery: 0
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

DGPS DATA

Operator:	MKM	MKM	MKM
File Name:	SD-92-1	SD-92-2	SD-92-3
Lat / (N)	6049996.44	6050015.47	6050030.680
Lon / (E)	1474991.73	1474971.11	1474966.890
PDOP:	7SV	7SV	7SV

Coordinate Units: (Lat/Lon) US Survey Feet
Datum: NAD1983 (Y) N Other ____
Proj.: MD 1900
GPS Serial #: ~~0220139040~~ (TSC1) Trimble GEOXH 0501469344

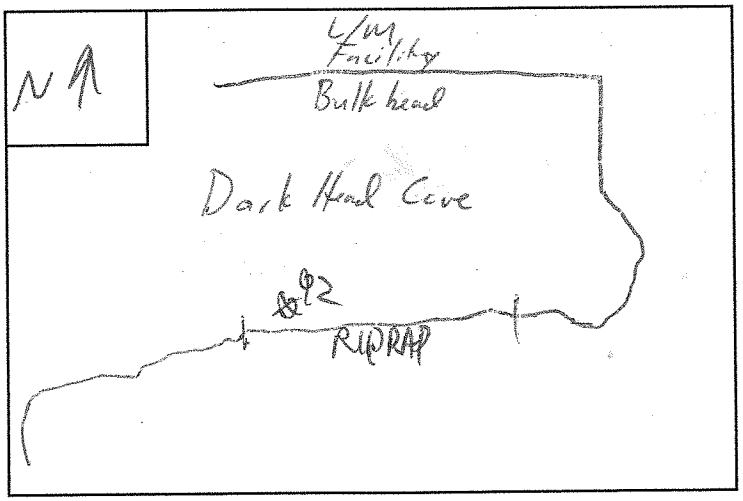
COMMENTS / NOTES

MOVED 30' OFF POINT MORE INTO CHANNEL AS PER TONY

MOVED 15' FOR PUSH 3 TOTAL 45'

USED PUSH #2 FOR SAMPLE

Preparer's Initial: MKM



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-92	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION: ~~SD-92~~ COD Dankhead Cove

ELEVATION: N/A

DRILLING CONTRACTOR: Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED: PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS: 4' 3"

START: 1455 END: 1515 LOGGER: HIS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Very Wet, Soft Top 2.0" almost exclusively clam shells, some detritous slight hydrocarbon odor silt with fine sand Chart 1 for gley 3/10y	SD-92-SS - sampled at 1510 hrs for P.P. Metals, PAH, and PCB
3.0"					Wet, Firm Silt with sand NO odor Chart 1 for gley 3/10y	SD-92-SS Sampled at 1515hrs for P.P. Metals, PAH, and PCB
10.0"					Moist, Firm Clay with fine sand slight decaying odor, charcoal color Chart 7.5YR 4/1	
14.0"						

NA 9-27-10

NORMANDEAU ASSOCIATES
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FIELD DATA SHEET

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Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/17/10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)** Field Team Safety Coordinator: **MKM / RMK**

Field Crew: MKM, HIS, CDO Arrival/Departure Times: 1447 - 1459

Station ID #: SD-93 Weather: Clear Cloudy Rain Other _____

Photos: ~~X~~ Y N Roll No./Exposure No.: ~~X~~ NA Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 9' 11" Tide: Ebb Flood Low Slack High Slack Other _____ NA

PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-93 Coring Time: 1453 Penetration Depth: 60" Core Recovery: 39"

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM

File Name: SD-93-1

Lat / N: 604882.21

Lon / E: 1479777.57

PDOP: 7 5V

Coordinate Units: Lat/Lon US Survey Feet

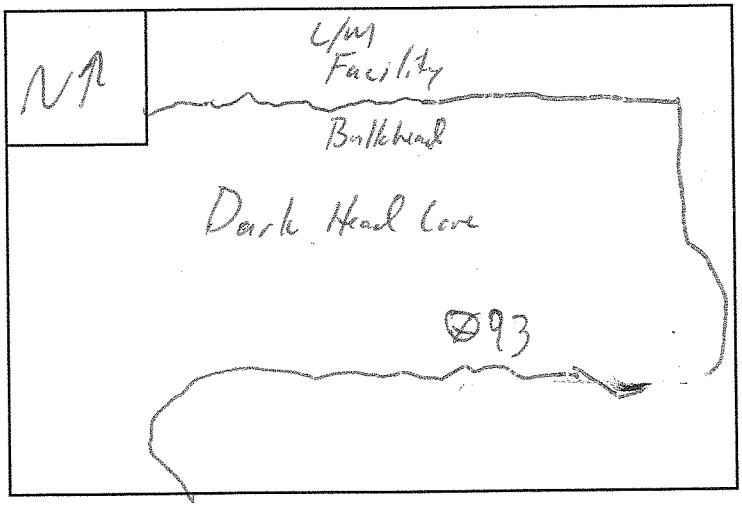
Datum: NAD1983 Y N Other _____

Proj.: MD 1900

GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

MOVED 30' OFF AS PIER TONY DUE TO RIPRAP



Preparer's Initial: MKM

MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-93	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: Dartkhead Cove
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 9' 1"
START: 1540 END: 1610 LOGGER: HLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Very Wet, Very Soft Silt with sand No odor Chart 1 for gley 2.5/N	SD-93-SS - Sampled at 1553 hrs for PP Metals, PAH, and PCB
6.0"					Wet, Soft. No odor Silt with sand Chart 1 for gley 3/N	SD-93-01 - Sampled at 1600 hrs for PP Metals, PAH, and PCB
16.0"					Moist, Soft Silt with very fine sand No odor Chart 1 for gley 3/10y	SD-93-02 - Sampled at 1605 hrs for PP Metals, PAH, and PCB
43.0"					Moist, Firm Clay with very fine sand no odor Chart 5YR 3/4	SD-93-04 - sampled at 1610 hrs for PP Metals, PAH and PCB
60.0"						

MK 9-27-10

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rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**	**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**	**Task #: N/A**
City:	**Middle River** **State:** **MD** **Zip:**	**Date:** 8 / 17 / 10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: MRW HIS CDD
Arrival/Departure Times: 1251 - 1315
Station ID #: SD-94
Weather: Clear Cloudy Rain Other
Photos: ~~Y~~ ~~N~~ NA Roll No./Exposure No.: ~~A~~ NA
Wind Conditions (Speed/Direction): 5-10 NW

FIELD DATA
Water Depth: 5' 8"
Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-94 Coring Time: 1300 Penetration Depth: 60" Core Recovery: 58"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

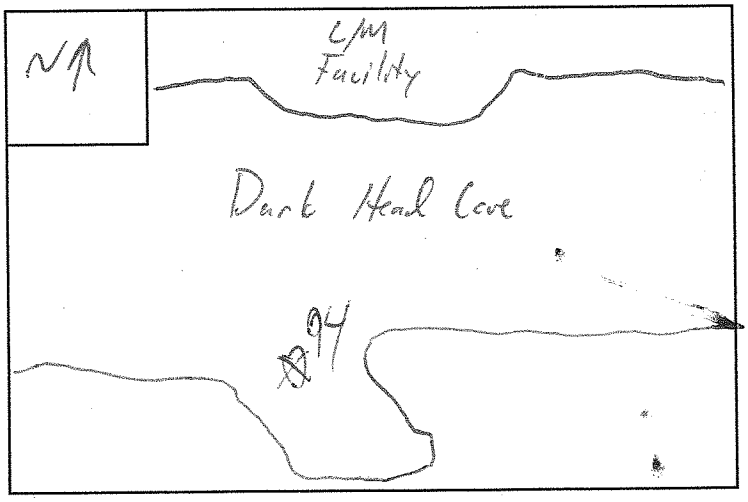
SAMPLE/PUSH #3
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

MRW

DGPS DATA
Operator: MKM
File Name: SD-94-1
Lat / N: 604565.45
Lon / E: 1474,600.06
PDOP: 750

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: ND 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES



Preparer's Initial: MKM

MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET 2 OF 2
22007.000	8/17/10	SD-94	

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : ~~[illegible]~~ CDD Darkhead Cove

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS : 5' 8"

START : 1310 END : 1345 LOGGER : HIS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Very Wet, Very Soft Silt with fine sand, no odor 1 for gley 3/5 gy	SD-94-SS - Sampled at 1330 hrs for P.P. Metals, PAH, PCB, and Alk. PAH
3.0"					Wet, Soft Silt with fine sand No odor 1 for gley 3/10 y	SD-94-01 - Sampled at 1335 hrs for P.P. Metals, PAH PCB, and Alk. PAH
						SD-94-02 - Sampled at 1340 hrs for P.P. Metals, PAH PCB, and Alk. PAH
41.0"					Wet, Soft Silt with clay and sand No odor Chart 10 YR 3/2	SD-94-04 - Sampled at 1345 hrs for P.P. Metals, PAH, and PCB
58.0"						

NKM 9-27-10

NORMANDEAU ASSOCIATES
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FIELD DATA SHEET

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Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/17/16**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW HLS CDD
Arrival/Departure Times: 1517 - 1535
Station ID #: SD-95
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: NA
Wind Conditions (Speed/Direction): 0-5 E

FIELD DATA

Water Depth: 10' 11"
Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-95 Coring Time: 1525 Penetration Depth: 60" Core Recovery: 59"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

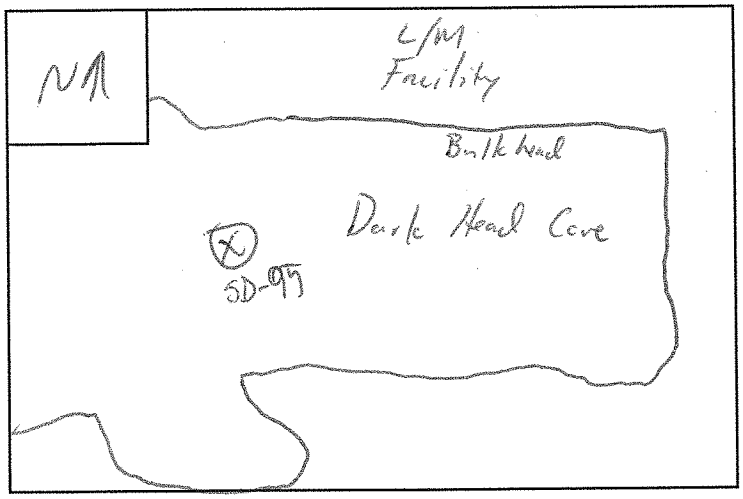
DGPS DATA

Operator: MRW
File Name: SD-95-1
Lat / N: 604672.7
Lon / E: 1474429.17
PDOP: 7.5V

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: 0220139040 (TSC1) Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



MRW 9-27-16

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-95	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION : Dankhead Cove
ELEVATION : N/A
DRILLING CONTRACTOR : Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED : PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS : 10' 11"
START : 1635 END : 1720 LOGGER : HIS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Very Wet, Very Soft Silt No odor Chart 1 for gley 3/10y	SD-95-SS - sampled at 1655 hrs for PP Metals, PAH, and PCB SD-95-01 - sampled at 1700 hrs for PP Metals, PAH and PCB *SD-95-01 (Duplicate #1) designated as SD-Dupl-01 with a sample time of 1201 hrs - sampled for PP Metals, PAH and PCB
35.0'					Wet, Soft Clay mixed with Silt No odor Chart 1 for gley 3/5gy	SD-95-02 - sampled at 1705 hrs for PP Metals, PAH, and PCB SD-95-04 - sampled at 1710 hrs for PP Metals, PAH, and PCB
60.0'						

NM 9-27-10

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rev:11/08

FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**			**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**			**Task #: N/A**
City:	**Middle River**	**State: MD**	**Zip:**	**Date: 8/19/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1000 - 1015
Station ID #: SD-96
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 10' 7" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-96 Coring Time: 1010 Penetration Depth: 4' Core Recovery: 45"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

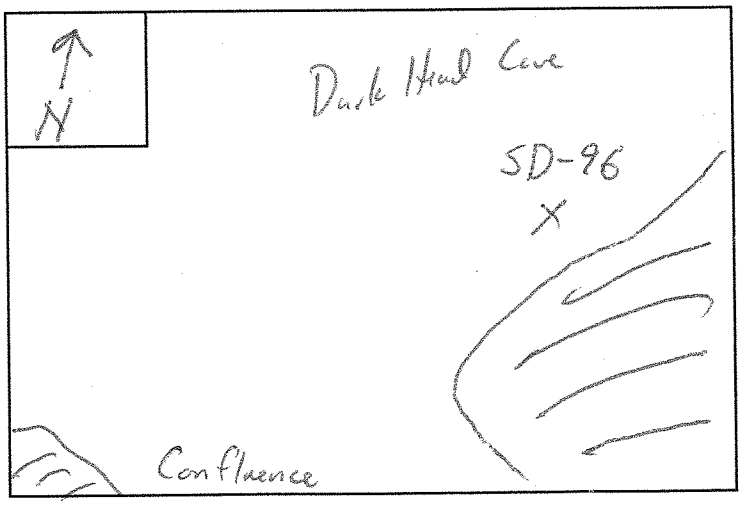
DGPS DATA

Operator: MRW
File Name: SD-96-1
Lat / N: 604375.12
Lon / E: 1474218.91
PDOP: 5.5

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GeoXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



MK 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-96	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 10' 7"
START: 1045 END: 1105 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT) #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"				very soft + wet, silt, slight organic odor. color: chart 1 for Gley 2.5/10Y	SD-96-SS @ 1053 PP metals, PAHs, PCBs,
					SD-96-01 @ 1055 PP metals, PAHs, PCBs
					SD-Dup 5-01 @ 1615 metals, PAHs, PCBs
					SD-96-02 @ 1057 PP metals, PAHs, PCBs
					SD-96-04 @ 1059 PP metals, PAHs, PCBs,
34"				color: 5YR-4/6 Clay, no odor, wet + soft	
45"					

MR-9-27-10

NORMANDEAU ASSOCIATES
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FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/17/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Crew: MRW HIS CDD
Station ID #: SD-97
Photos: ~~Y~~ N Roll No./Exposure No.: NA / NA

Field Team Safety Coordinator: MKM / RMK
Arrival/Departure Times: 1113 - 1130
Weather: Clear Cloudy Rain Other ____
Wind Conditions (Speed/Direction): 10-15 NW

FIELD DATA
Water Depth: 13' 6" Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-97 Coring Time: 1126 Penetration Depth: 60" Core Recovery: 59"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

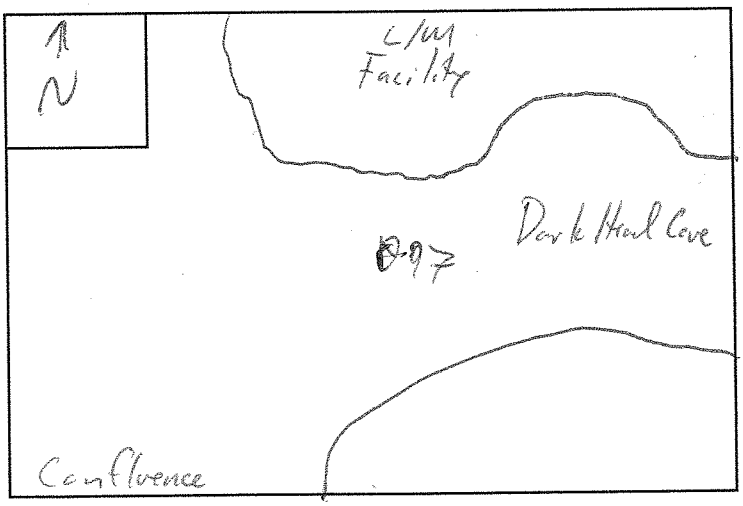
SAMPLE/PUSH #3
Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: SD-97-1
Lat / N: 6042123.95
Lon / E: 1473720.89
PDOP: 6.5V

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other ____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MKM



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/17/10	SD-97	2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION : Dankhead Cove
ELEVATION : N/A
DRILLING CONTRACTOR : Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED : PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS : 13' 6"
START : 1155 END : 1235 LOGGER : MJS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Very Wet Very Soft, Silt No odor Chart 1 for q/cy 3/N	SD-97-SS - Sampled at 1220 hrs for P.P. Metals, PAH, PCB and AIK. PAH
16.0"					Wet, Soft Silt with clay Chart 1 for q/cy 25/10y No odor	SD-97-01 - Sampled at 1225 hrs for P.P. Metals, PAH, PCB and AIK. PAH
34.0"					Wet Soft Silt with clay Chart 1 for q/cy 3/59y	SD-97-02 - Sampled at 1230 hrs for P.P. Metals, PAH, PCB and AIK. PAH SD-97-04 - sampled at 1235 hrs for P.P. Metals, PAH, and PCB
60.0"						

MM 9-27-10

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FIELD DATA SHEET

Project Name:	TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX				**Proj. #:** 22007.000
Site Name:	Dark Head Cove / Dark Head Creek / Cow Pen Creek				**Task #:** N/A
City:	Middle River	**State:**	MD	**Zip:**	**Date:** 8 / 19 / 10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 0900 - 0915
Station ID #: SD-98
Weather: Clear Cloudy Rain Other ____
Photos: Y N Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): Calm

FIELD DATA
Water Depth: 10'0" / 10'0" Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-98 Coring Time: 0910 Penetration Depth: 5' Core Recovery: 0"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: SD-98 Coring Time: 0925 Penetration Depth: 5 Feet Core Recovery: 57"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3
Core ID#: ____ Coring Time: MRW Penetration Depth: ____ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

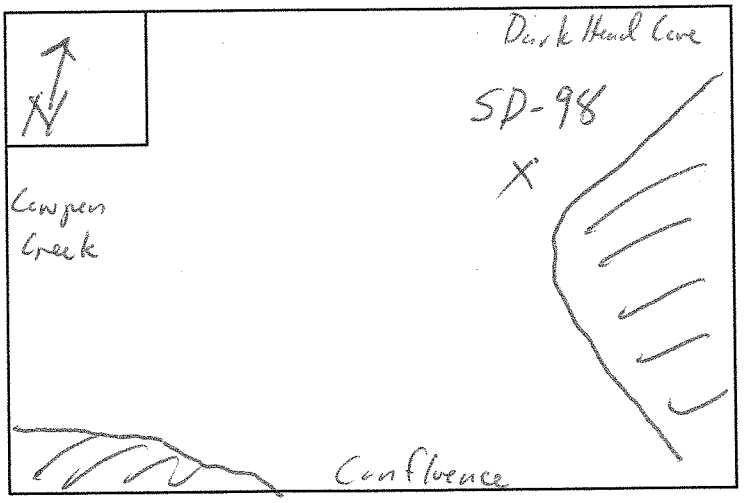
Operator:	MRW	MRW
File Name:	SD-98-1	SD-98-2
Lat / N:	604158.42	604156.36
Lon / E:	1474021.49	1474023.44
PDOP:	6 SV	NA

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other ____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Core catcher failed on first attempt. Pushed second core after ≈3ft position offset.

Preparer's Initial: MRW



9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-98	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: Middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 10.0'
START: 0950 END: 1015 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet & soft, no odor, silt w/ clay. color: 1 for Gley 3/10Y	SD-98-SS @ 1003 PP metals, PAHs, PCBs
						SD-98-01 @ 1005 PP metals, PAHs, PCBs.
						SD-98-02 @ 1007 PP metals, PAHs, PCBs.
						SD-98-04 @ 1009 PP metals, PAHs, PCBs,
37"					wet & soft, clay w/silt no odor, color: 5YR - 4/6	
57"						

D-SD #2

MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/19/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1350 - 1410
Station ID #: SD-99
Weather: (Clear) Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA
Water Depth: 7'4"
Tide: Ebb (Flood) Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-99 Coring Time: 1405 Penetration Depth: 5' Core Recovery: 59"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

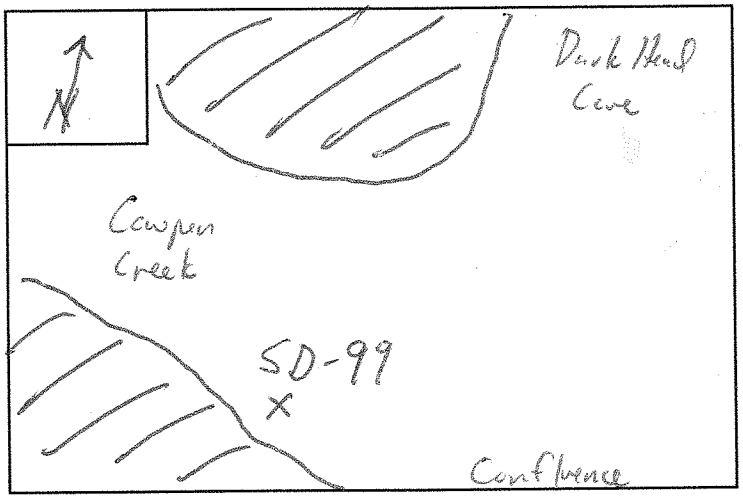
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MRW
File Name: SD-99-1
Lat / N: 603892.01
Lon / E: 1473484.15
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH GSO 1469344

COMMENTS / NOTES

Preparer's Initial: MRW



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-99	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 7'4" START: 1427 END: 1500 LOGGER: MKm

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					Homogenous Throughout wet, soft, no odor, minor shell frags mixed throughout, silt w/clay color: chart 1 for Gley 4/5 GY	SD-99-SS @ 1435 PP metals, PAHs, PCBs, TOC AVS, SEM
						SD-99-01 @ 1437 PP metals, PAHs, PCBs, TOC AVS, SEM
						SD-99-02 @ 1439 PP metals, PAHs, PCBs, TOC AVS, SEM
					39" to 42" slightly higher shell concentration	SD-99-04 @ 1441 PP metals, PAHs, PCBs AVS, SEM
58"						

MK 9-27-10

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rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8 / 18 / 10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)** Field Team Safety Coordinator: **MKM / RMK**

Field Crew: MRW, CDD, HS Arrival/Departure Times: 1605 - 1620

Station ID #: SD-100 Weather: Clear (Cloudy) Rain Other _____

Photos: Y (N) Roll No./Exposure No.: _____ Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 7'7" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA

PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-100 Coring Time: 1615 Penetration Depth: 51 Core Recovery: 47"

Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW Coordinate Units: Lat/Lon (US Survey Feet)

File Name: SD-100-1 Datum: NAD1983 (Y) N Other _____

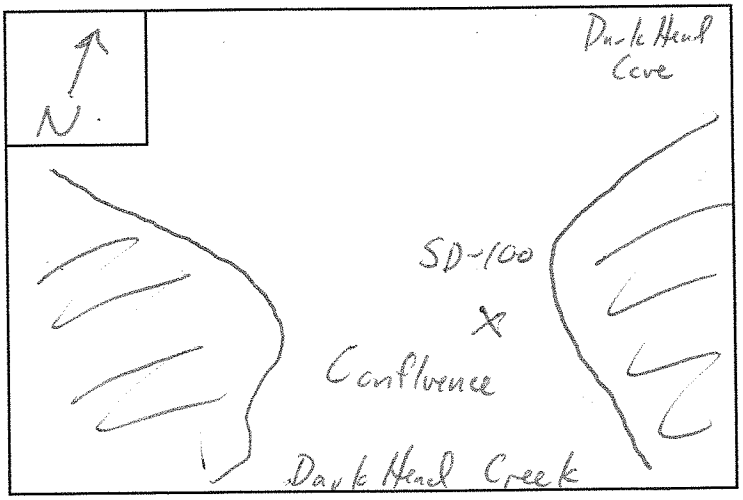
Lat / N: 603930.65 Proj.: MD-1900

Lon / E: 1474090.91 GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEO XH 0501419344

PDOP: 7 SV

COMMENTS / NOTES

Preparer's Initial: MRW



MKM 9-27-10

cored on 8/18/10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/19/10	SD-100	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 7' 7"
START: 0835 END: 0900 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT) #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"				fine-med grain sand w/ little silt wet, soft, no odor. color: chart 1 for Gley 3/10Y shells	SD-100-SS @ 0847 PP-metals, PAHs, PCBs
0.5"				clay & silt w/ fine grain sand, wet & soft, no odor color: chart 1 for Gley 4/10Y	SD-100-01 @ 0849 PP-metals, PAHs, PCBs,
					SD-100-02 @ 0851 PP-metals, PAHs, PCBs,
					SD-Dup 4-02 @ 1500 PP-metals, PAHs, PCBs,
					SD-100-04 @ 0853 PPmetals, PAHs, PCBs,
57"					

MKM 9/27/10

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/18/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 0857 - 0925
Station ID #: SD-101
Weather: Clear Cloudy Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 10' 9" Tide: (Ebb) Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-101 Coring Time: 0915 Penetration Depth: 5' Core Recovery: 58"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

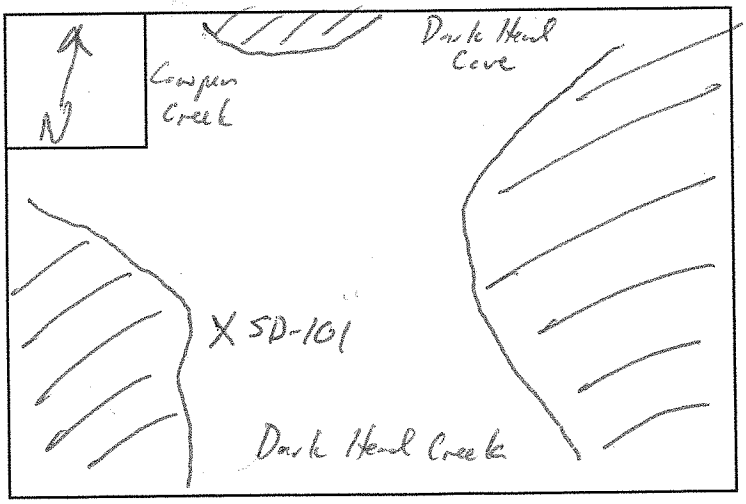
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW
File Name: SD-101-1
Lat / N: ~~1473812.43~~ 603806.70
Lon / E: ~~66~~ 1473812.43
PDOP: 5 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES



Preparer's Initial: MRW

MRW
9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-101	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 10' 9"
START: 0934 END: 1010 LOGGER: mkm

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet, very soft, silt (w/fine to med grain sand from 37" - 40")	SD-101-SS @ 0955 PP metals, PAH, PCB, TOC [redacted] ALK, PAH AVS, SEM
					slight organic odor	SD-101-01 @ 0957 PP metals, PAH, PCB, TOC ALK, PAH AVS, SEM
					chart 1 for Gley 2.5/10Y	SD-101-02 @ 0959 PP metals, PAH, PCB, TOC ALK, PAH AVS, SEM
40"					soft, wet no odor, clay w/silt + fine to med grain sand, 1 for Clay 3/10Y	SD-101-04 @ 1001 PP metals, PAH, PCB AVS, SEM
59"						

mkm 9-27-10

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/18/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 0945 - 0955
Station ID #: SD-102
Weather: Clear Cloudy (Rain) Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): ~~Calm~~ NW CALM

FIELD DATA

Water Depth: 10' 4" Tide: (Ebb) Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-102 Coring Time: 0950 Penetration Depth: 5.0' Core Recovery: 58"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

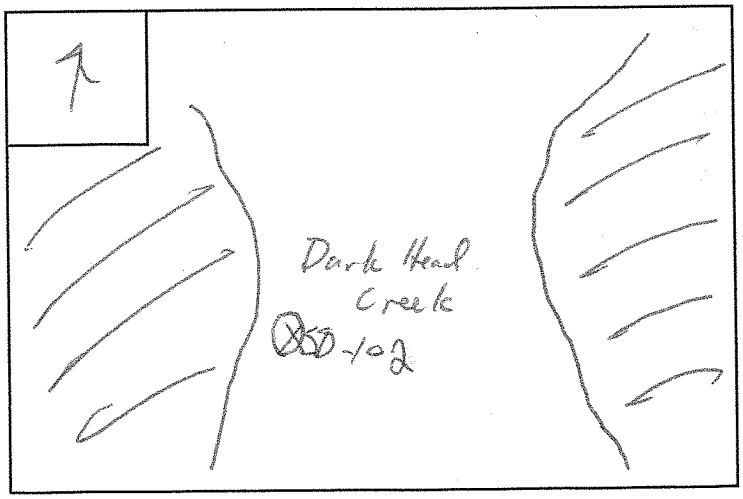
DGPS DATA

Operator: MRW
File Name: SD-102-1
Lat / N: 603626.21
Lon / E: 1473873.61
PDOP: 5 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



NA 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-102	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : Middle River

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS : 10' 4"

START : 1020 END : 1045 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT) #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0'				very wet, very soft, silT no odor Gley 1 3/N	SD-102-SS @ 1030 PP metals, PAHs, PCBs, [redacted]
					SD-102-01 @ 1032 PP metals, PAHs, PCBs
					SD-102-02 @ 1034 PP metals, PAHs, PCBs
					SD-102-04 @ 1036 PP metals, PAHs, PCBs Dup2 @ 1110 SD-DUP2-04
39'				clay, w/silT, no odor wet, soft, color Gley1 4/10Y	
58'					

MKM 9-27-11

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/18/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1020-1055
Station ID #: SD-103
Weather: Clear Cloudy (Rain) Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA
Water Depth: 7'0"/8'0" (1/2)
Tide: Ebb (Flood) Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: SD-103 Coring Time: 1030 Penetration Depth: 2'8" Core Recovery: 2'4"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: SD-103 Coring Time: 1050 Penetration Depth: 2'3" Core Recovery: 2'0"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3
Core ID#: _____ Coring Time: NR Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

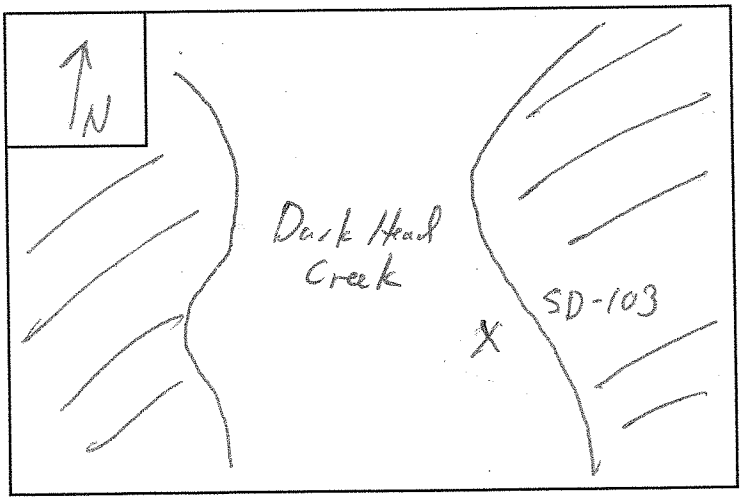
DGPS DATA

Operator:	MRW	MRW
File Name:	SD-103-1	SD-103-2
Lat / N:	603591.49	603590.71
Lon / E:	1474153.07	1474135.59
PDOP:	6 SV	7 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

USED PUSH #1



Preparer's Initial: MRW

MRW 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-103	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: Middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL ~~or Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 7'0"
START: 1220 END: 1250 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					wet, soft, SILT w/fine to med. grain sand, color gley 1 4/10Y, no odor.	SD-103-SS @ 1233 PP METALS, PAHs, PCBs
					shells in top 2"	SD-103-01 @ 1235 PP METALS, PAHs, PCBs
						SD-103-02 @ 1237 PP METALS, PAHs, PCBs
15"					wet, soft, Gley 1 - 4/10Y silt fine + med. grain sand sand content 60% or more no odor	
19					moist, firm, clay w/ very sm. amount of fine sand. no odor. color chart 2.5Y - 5/2	
27"						

MK-9-27-10

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FIELD DATA SHEET

Page 1 of 5

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 5 / 15 / 10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1225 - 1250
Station ID #: SD-104
Weather: Clear Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 8'3" Tide: Ebb (Flood) Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-104 Coring Time: 1245 Penetration Depth: 5.0ft Core Recovery: 57"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

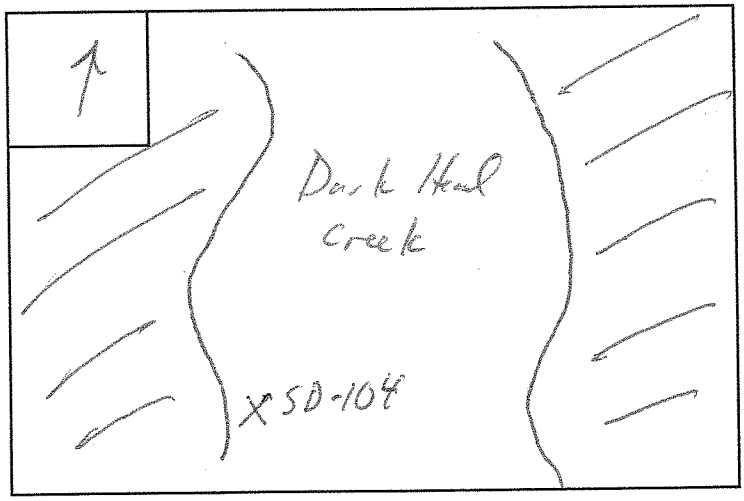
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW
File Name: SD-104-1
Lat / N: ~~1473865.12~~ 603360.86
Lon / E: ~~603~~ 1473865.12
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES



Preparer's Initial: MRW

MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-104	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 8' 3"
START: 1310 END: 1330 LOGGER: mKm

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					soft, wet, no odor color: Gley 1 - 4/10Y SILT, Little bit of clay & fine grain SAND Homogenous Throughout	SD-104-SS @ 1320 PPmetals, PAHs, PCBs Dup#3 Done Here Time 1215 ~~SD-DUP3-SS~~ SD-104-01 @ ~~1215~~ 1322 PPmetals, PAHs, PCBs SD-104-02 @ 1324 PPmetals, PAHs, PCBs SD-104-04 @ 1326 PPmetals, PAHs, PCBs
59"						

MK 9-27-10

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FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**				**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**				**Task #: N/A**
City:	**Middle River**	**State:**	**MD**	**Zip:**	**Date:** 8/18/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)** Field Team Safety Coordinator: **MKM / RMK**

Field Crew: MRW, CDD, HS Arrival/Departure Times: 1350 - 1405

Station ID #: ~~SD-105~~ SD-105 Weather: Clear (Cloudy) Rain Other _____

Photos: Y (N) Roll No./Exposure No.: _____ Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 10', 0" Tide: Ebb (Flood) Low Slack High Slack Other _____ NA

PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-105 Coring Time: 1400 Penetration Depth: 5' Core Recovery: 68"

Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____

Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MRW Coordinate Units: Lat/Lon (US Survey Feet)

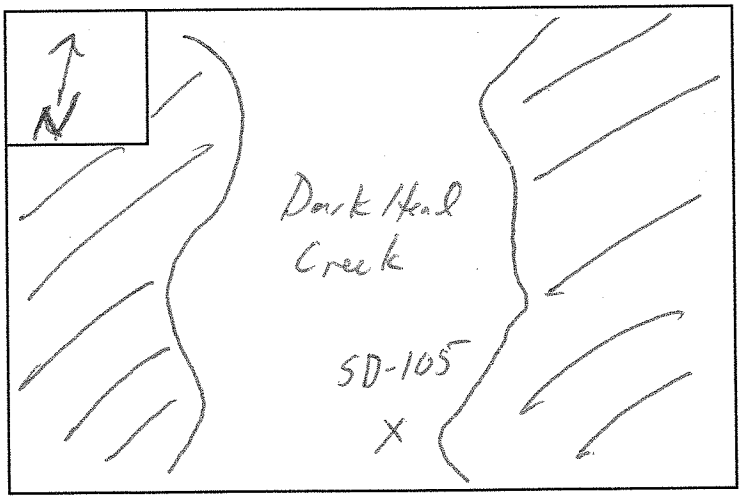
File Name: SD-105-1 Datum: NAD1983 (Y) N Other _____

Lat / N: 603315.27 Proj.: MD 1900

Lon / E: 1474206.58 GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

PDOP: 8 SV

COMMENTS / NOTES



Preparer's Initial: MRW

MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-105	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or Rossfelder VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 10'0" START: 1420 END: 1440 LOGGER: MRM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0'0"					(Wet, Soft very) Clay / 2.5/N, no odor silt w/ Little clay Homogenous Throughout	SD-105-SS @ 1438 PPmetals, PAHs, PCB's
						SD-105-01 @ 1430 PPmetals, PAHs, PCBs.
						SD-105-02 @ 1432 PPmetals, PAHs, PCBs.
						SD-105-04 @ 1434 PPmetals, PAHs, PCBs.
5'9"						

MRM 9-27-10

NORMANDEAU ASSOCIATES
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FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/18/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, CDD, HS
Arrival/Departure Times: 1525 - 1540
Station ID #: SD-106
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 6' 9" Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: SD-106 Coring Time: 1535 Penetration Depth: 51' Core Recovery: 53"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

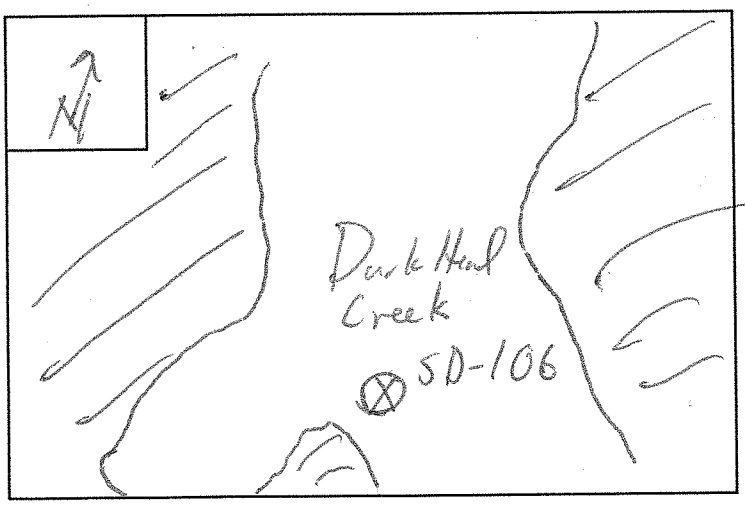
DGPS DATA

Operator: MRW
File Name: SD-106-1
Lat / N: 603079.95
Lon / E: 1473971.76
PDOP: 7 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MRW



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/18/10	SD-106	SHEET 2 OF 2

Normandeau Soil Boring Log

PROJECT : LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD

LOCATION : middle River

ELEVATION : N/A

DRILLING CONTRACTOR : Normandeau Associates

DRILLING METHOD AND EQUIPMENT USED : PVL or ~~Rossfelder~~ VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring

WATER LEVELS : 8' 9"

START : 1555 END : 1620 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0'					Homogenous throughout clay/silt, no odor color: 1 fo. gley - 4/10Y wet, soft.	SD-106 - SS @ 1601 PP metals, PAHs, PCBs.
						SD-106-01 @ 1603 PP metals, PAHs, PCBs,
						SD-106-02 @ 1605 PP metals, PAHs, PCBs
						SD-106-04 @ 1607 PP metals, PAHs, PCBs,
5' 11"						

MK - 9-27-10

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/20/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HLS
Arrival/Departure Times: 1241 - 1300
Station ID #: Middle River Downstream
Weather: (Clear) Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): W / 5-7

FIELD DATA
Water Depth: 8' 6"
Tide: Ebb Flood (Low Slack) High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: MR DOWNSTREAM Coring Time: 1251 Penetration Depth: 60" Core Recovery: 57"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

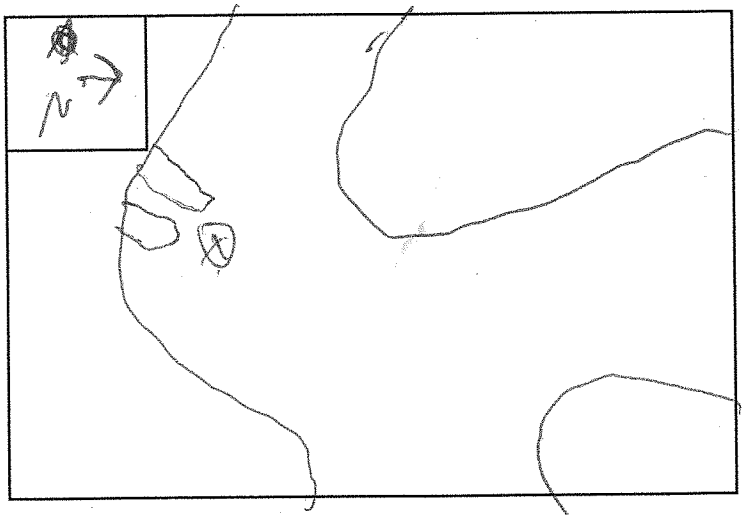
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: MRDR
Lat / N: 600112.20
Lon / E: 1473469.91
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: MKM



MKM 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/20/10	middle River Downstream	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder~~ VC / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 8'6" START: 1325 END: 1400 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					very wet / very soft silt w/clay, no odor. color; chart 1 for gley 2.5/N	middle River Downstream SS @ 1337 PPMETALS, PAHs, PCBs. TOC ALK, PAHs. Dup #6 @ 0930 - DUP middle River Downstream 01 @ 1339 PPMETALS, PAHs, PCBs,
17"					wet, soft, clay w/silt no odor. color; chart 1 for Gley 4/10Y	middle River Downstream 02 @ 1341 PPMETALS, PAHs, PCB's middle River Downstream 04 @ 1343 METALS, PAHs, PCBs.
57"						

MKM 9-27

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FIELD DATA SHEET

Page 1 of 2

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/21/10**

Field Team Leader(s): ~~RMK~~, ~~MKM~~, T. Apanavage (TT)
Field Team Safety Coordinator: ~~MKM~~ / ~~RMK~~
Field Crew: MRW, HS
Arrival/Departure Times: 1115 – 1140
Station ID #: Marshy Point
Weather: (Clear) Cloudy Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): NE @ 10-15

FIELD DATA

Water Depth: 4'5" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: Marshy Point Coring Time: 1130 Penetration Depth: 60" Core Recovery: 58"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

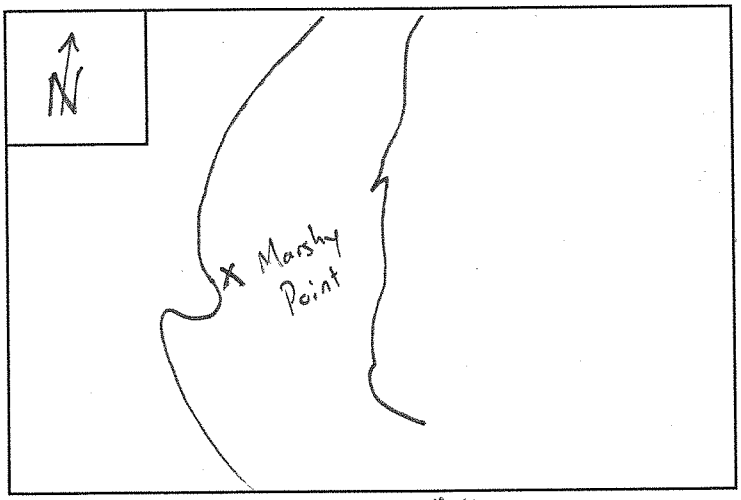
DGPS DATA

Operator: MRW
File Name: Marshy Point
Lat / N: 6115 76.08
Lon / E: 1493350.36
PDOP: 7.5V

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD-1900
GPS Serial #: ~~0220139040 (TSC1)~~ Trimble GEOXH 0520469344

COMMENTS / NOTES

Preparer's Initial: HS



MK 9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/21/10	Marshy Point	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ / Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 4' 5"
START: 1505 END: 1535 LOGGER: M/CM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					~~So~~ Very soft very wet, SILT w/ a little clay, no odor. Color: chart 1 for Gley 2.5/10Y ↓	Marshy Point-SS @ 1520 PP METALS, PAHs, PCB, TOC ALK, PAHs Marshy Point-01 @ 1522 PP METALS, PAHs, PCBs.
14"					wet + soft, clay w/ silt no odor, chart 1 for gley, 4/10Y ↓	Marshy Point-02 @ 1524 PP Metals, PAHs, PCBs. Marshy Point-04 @ 1526 PP metals, PAHs, PCBs.
58"						

NM - 9-27-10

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FIELD DATA SHEET

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/2/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HLS
Arrival/Departure Times: 1325 – 1340
Station ID #: Bowleys Quarter
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): NE @ 10-15

FIELD DATA
Water Depth: 6' 0" Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: Bowley's Quarter Coring Time: 1327 Penetration Depth: 60" Core Recovery: 56"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

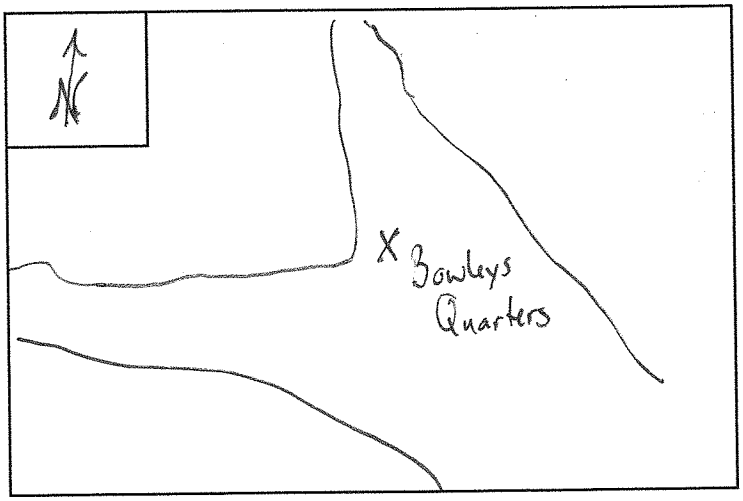
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MRW
File Name: Bowleys Quarters
Lat / N: 603206.09
Lon / E: 1487252.57
PDOP: 8SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: 0220139040 (TSC1) Trimble GEOXH 0501469344

COMMENTS / NOTES

Preparer's Initial: HLS



9-27-10

PROJECT NUMBER	DATE	BORING NUMBER	SHEET
22007.000	8/21/10	Bowley's Quarters	2 OF 2

Normandeau Soil Boring Log

PROJECT: LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MD
LOCATION: Middle River
ELEVATION: N/A
DRILLING CONTRACTOR: Normandeau Associates
DRILLING METHOD AND EQUIPMENT USED: PVL or ~~Rossfelder VC~~ Ponar® Sediment Grab / Piston Corer / Manually-pushed boring
WATER LEVELS: 6'0" START: 1540 END: 1600 LOGGER: MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0.0"					wet, soft, clay w/silt + fine grain sand, no odor, color: chart 1 for gley - 4/10Y	Bowley's Quarters-SS @ 1545 PP metals, PAHs, PCBs, TOC ALK, PAHs. Bowley's Quarters-01 @ 1547 PP metals, PAHs, PCBs. Bowley's Quarters-02 @ 1549 PP metals, PAHs, PCBs Bowley's Quarters-04 @ 1551 PP metals, PAHs, PCBs
42					clay w/fine to med. grain sands, mottled w/ clay no odor, color: chart 1 for gley-4/10Y, color for mottles, chart 1 for gley 6/10Y wet & soft	
48"						

MKM 9-27-10

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FIELD DATA SHEET

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Project Name:	TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX	**Proj. #:** 22007.000
Site Name:	Dark Head Cove / Dark Head Creek / Cow Pen Creek	**Task #:** N/A
City:	Middle River **State:** MD **Zip:**	**Date:** 8/22/10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MKW
Arrival/Departure Times: 0730 - 0828
Station ID #: PW-01
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 E

FIELD DATA
Water Depth: 10" Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: PW-01 Coring Time: 0810 Penetration Depth: 36" Core Recovery: 24"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

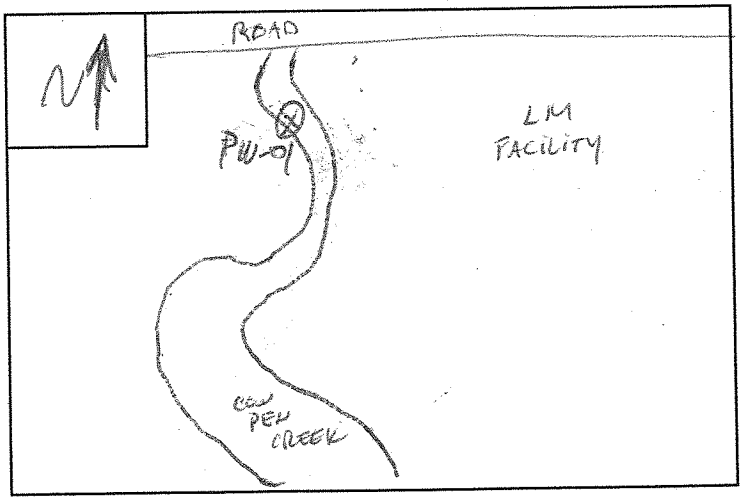
SAMPLE/PUSH #2
Core ID#: PW-01 Coring Time: 0818 Penetration Depth: 36" Core Recovery: 16"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3
Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: PW-01
Lat / N: 665173.71
Lon / E: 1471881.88
PDOP: 6 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH 5010469344

COMMENTS / NOTES



Preparer's Initial: MKM

8/2/10
MM 9-27-10

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FIELD DATA SHEET

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Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/22/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HLS
Arrival/Departure Times: 0904 - 0932
Station ID #: PW-02
Weather: Clear Cloudy Rain Other ____
Photos: Y (N) Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): E @ 5-10

FIELD DATA

Water Depth: 4' 2" Tide: (Ebb) Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PW-02 Coring Time: 0913 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: PW-02 Coring Time: 0917 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

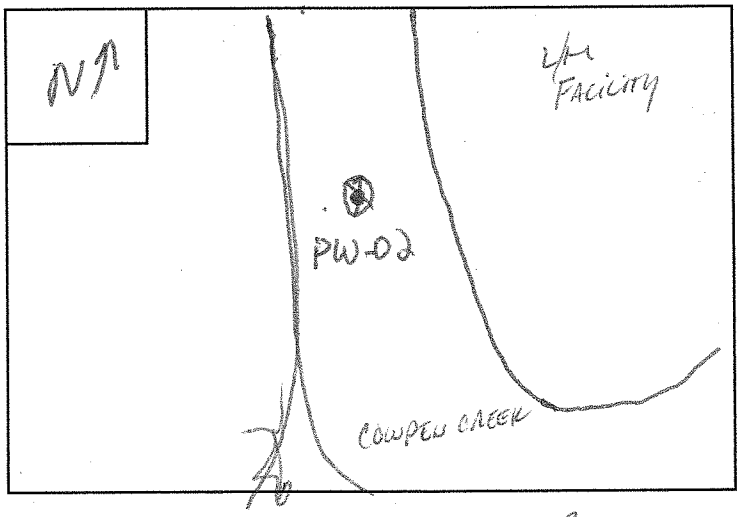
DGPS DATA

Operator: ~~MKM~~ MKM
File Name: PW-02
Lat / N: 604 401.26
Lon / E: 147 2761.28
PDOP: 6 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other ____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH 5201465344

COMMENTS / NOTES

Preparer's Initial: HLS



9/21/10 MKM - 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**	**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**	**Task #: N/A**
City:	**Middle River** **State:** **MD** **Zip:**	**Date:** 8 / 22 / 10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HIS
Arrival/Departure Times: 0945 – 1014
Station ID #: PW-03
Weather: Clear Cloudy Rain Other ____
Photos: Y N Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): SE @ 7-10

FIELD DATA

Water Depth: 12' 5" Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PW-03 Coring Time: 1001 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: PW-03 Coring Time: 1007 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

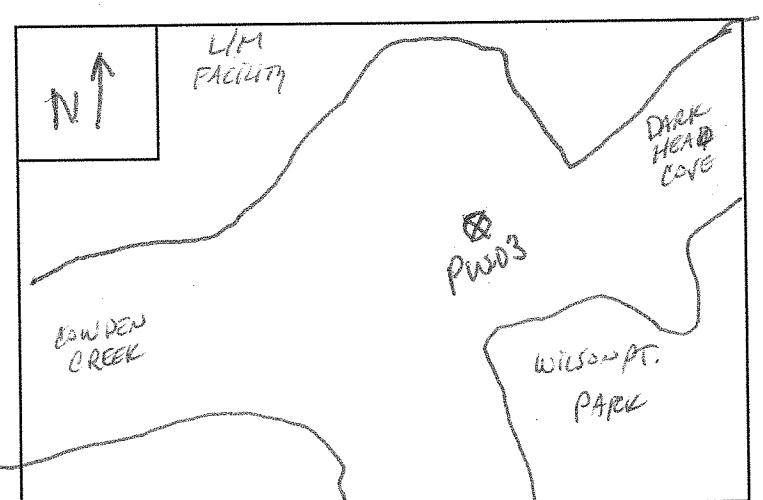
Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: PW-03
Lat / N: 604 630.17
Lon / E: 147 3912.82
PDOP: ~~[illegible]~~ 65V

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other ____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH #5010469344

COMMENTS / NOTES



Preparer's Initial: HIS

9/2/10
MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8 / 22 / 10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MDW, HS
Arrival/Departure Times: 1330 - 1350
Station ID #: PW-04
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): SE @ 20-25

FIELD DATA

Water Depth: 12' 11" Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PW-04 Coring Time: 1337 Penetration Depth: 36" Core Recovery: 35"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: PW-04 Coring Time: 1344 Penetration Depth: 36" Core Recovery: 35"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

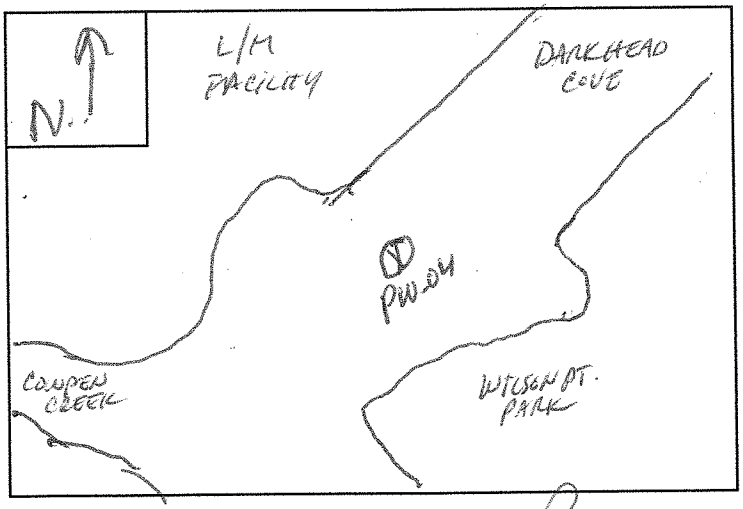
DGPS DATA

Operator: MKM
File Name: PW-04
Lat / N: 1004 599.01
Lon / E: 1474 247.10
PDOP: 7.5W

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH #5010469344

COMMENTS / NOTES

Preparer's Initial: HS



9/1/10
MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8 / 22 / 10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: mRW, HS
Arrival/Departure Times: 1352 – 1410
Station ID #: PW-05
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): SE @ 20-25

FIELD DATA

Water Depth: 10' 1" Tide: Ebb Flood (Low Slack) High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PW-05 Coring Time: 1356 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: PW-05 Coring Time: 1401 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

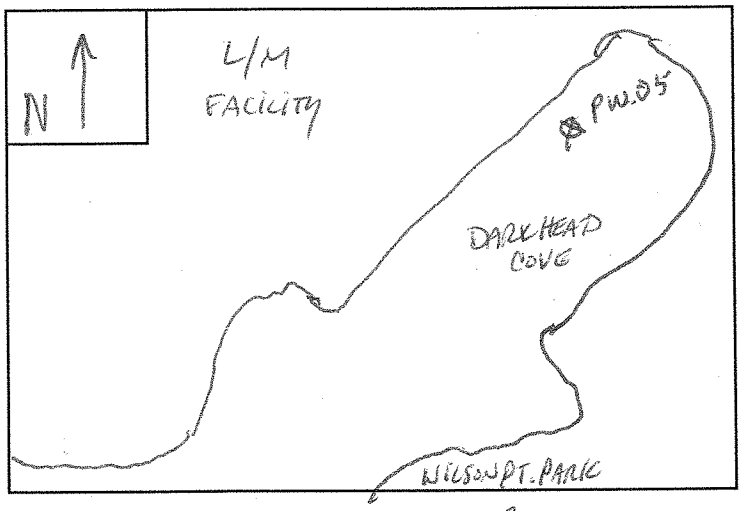
DGPS DATA

Operator: MKM
File Name: PW-05
Lat / N: 6053971.07
Lon / E: 1474848.74
PDOP: 5 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH #5010469844

COMMENTS / NOTES

Preparer's Initial: MS



9/23/10
MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/22/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HS
Arrival/Departure Times: 1232 - 1254
Station ID #: PW-06
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): SE@7-10

FIELD DATA
Water Depth: 9' 2" Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1
Core ID#: PW-06 Coring Time: 1239 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2
Core ID#: PW-06 Coring Time: 1247 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

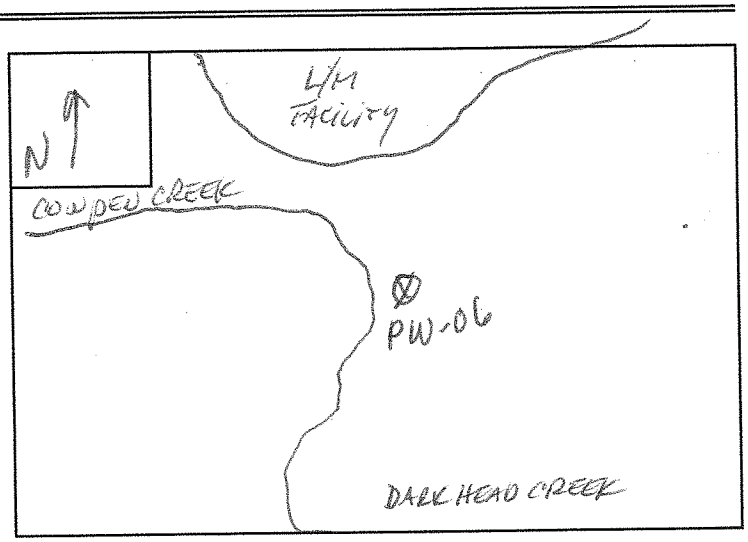
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: MKM
File Name: PW-06
Lat / N: 603 900.48
Lon / E: 1473 487.16
PDOP: 5 SV

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH #5010465344

COMMENTS / NOTES

Preparer's Initial: MS



8/27/10
MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 9/22/10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: MRW, HS
Arrival/Departure Times: 1304 - 1322
Station ID #: PW-07
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): SE @ 15-20

FIELD DATA

Water Depth: 12' 0" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PW-07 Coring Time: 1310 Penetration Depth: 36" Core Recovery: 35"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: PW-07 Coring Time: 1315 Penetration Depth: 36" Core Recovery: 36"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" 3" (4")
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

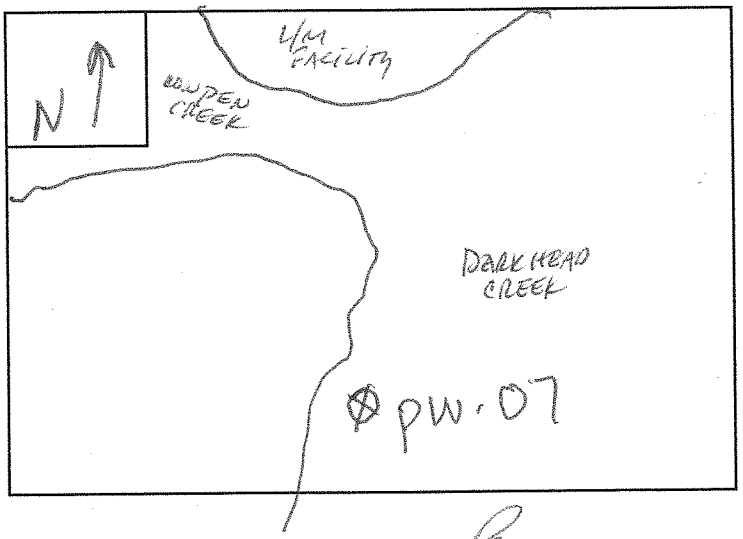
DGPS DATA

Operator: mkm
File Name: PW-07
Lat / N: 603 809.66
Lon / E: 147 3820.42
PDOP: 7 SV

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900 (US)
GPS Serial #: ~~0220139040 (ISC1)~~ TRIMBLEGEOXH #5010469344

COMMENTS / NOTES

Preparer's Initial: HS



9/22/10
MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8 / 23 / 10**

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Crew: RCB / HIS
Station ID #: DHC-SED-1
Photos: Y N Roll No./Exposure No.: _____

Field Team Safety Coordinator: MKM / RMK
Arrival/Departure Times: 1220 - 1336
Weather: Clear Cloudy Rain Other _____
Wind Conditions (Speed/Direction): 10-15 mph N

FIELD DATA

Water Depth: 11.3 Tide: Ebb Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: DHC-SED-1 Coring Time: 13:16 Penetration Depth: 48" Core Recovery: 47"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: DHC-SED-1 Coring Time: 13:16 Penetration Depth: 48" Core Recovery: 47"
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: RMK
File Name: DHC-SED-1
Lat / N: 604655.26
Lon / E: 1473908.60
PDOP: 7.0

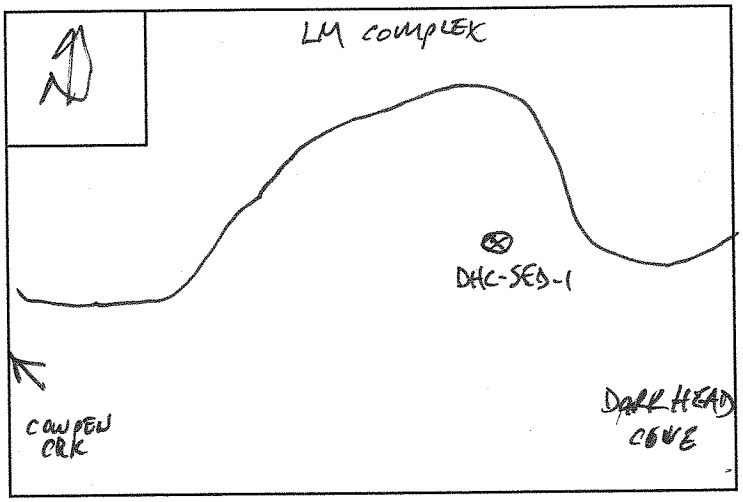
Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 (W) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH 5010469344

COMMENTS / NOTES

INSTRUCTED TO RELOCATE SAMPLE LOCATION FROM AGE-03 (11/15)
SHELBY TUBE (PERMEABILITY TESTS)

AGC-03 LABELED MKM
EPC 1-58 MKM

Preparer's Initial:



9/17/10 MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**				**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**				**Task #: N/A**
City:	**Middle River**	**State:**	**MD**	**Zip:**	**Date:** 8/24/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: RCB/HPS, RAB(TT)
Arrival/Departure Times: 1400 – 1430
Station ID #: ~~DHC-SED-2~~ CON-SED
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): 10-15mph NE

FIELD DATA

Water Depth: 13.1' Tide: (Ebb) Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: ~74°F

SAMPLE/PUSH #1

Core ID#: CON-SED Coring Time: 14:20 Penetration Depth: 48" Core Recovery: 47"
Collection Method: Ponar / (Vibracore) / Manual Liner Material: CAB / (Alum) / SS / PE Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ~~CON-SED~~ Coring Time: ~~14:30~~ 14:35 Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

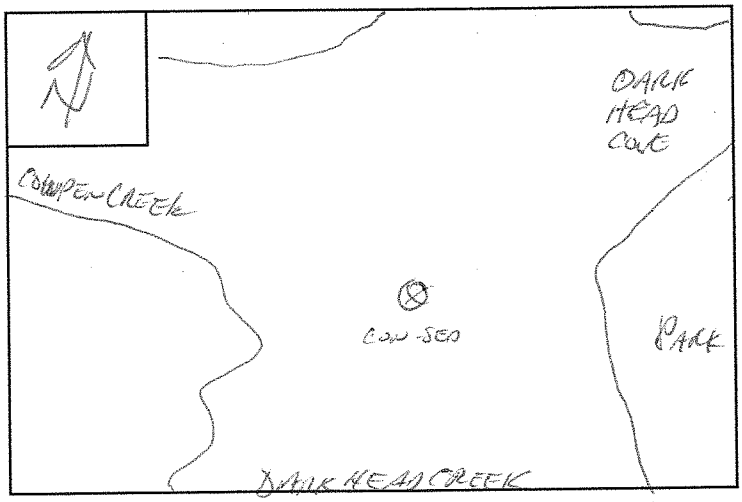
Operator: RMK
File Name: CON-SED
Lat / N: 603894.54
Lon / E: ~~14~~ 1473874.19
PDOP: 7.0

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ 5010469344 TRIMBLE GEOXH

COMMENTS / NOTES

@ GPS LOCK-IN ISSUES - RESOLVED
@ POSITION ISSUES @ SD100 – RELOCATED / ~~RBC~~ TT
CONSULT. TO MID CHANNEL.
SHELBY TUBE - 3" x 4'

Preparer's Initial:



MKM 9-27-10

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date:** 8/25/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: RCB, HTB RAB (TT)
Arrival/Departure Times: 13:00 - ~~17:40~~ 13:30
Station ID #: CPC-SED
Weather: Clear (Cloudy) Rain Other _____
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): Strong N

FIELD DATA
Water Depth: 3'4" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NT Redox Potential: NT pH: NA H^2O Temp.: NA Air Temp.: ~80 °F

SAMPLE/PUSH #1
Core ID#: CPC-SED Coring Time: 13:10 Penetration Depth: ~~~~4.0 Core Recovery: ~4.0
Collection Method: Ponar / (Vibracore) / Manual Liner Material: CAB / (Alum) / SS / PE Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

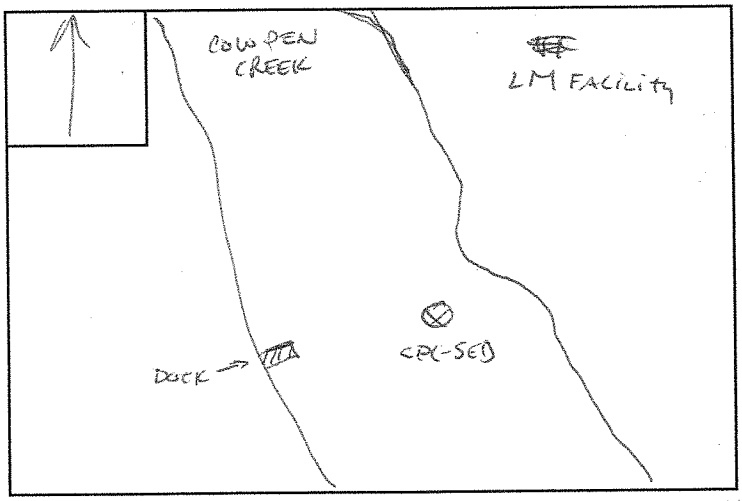
SAMPLE/PUSH #3
Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA
Operator: RMK
File Name: CPC-SED-1
Lat / N: 604638.77
Lon / E: 1472535.64
PDOP: 7.0

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH 5310469344

COMMENTS / NOTES

SHELBY TUBE



Preparer's Initial: RMK

MKM 9-27

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/24/10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Crew: RCO/HIS RAB (TT)
Station ID #: AGE-01
Photos: Y (N) Roll No./Exposure No.: _____

Field Team Safety Coordinator: **MKM / RMK**
Arrival/Departure Times: 0830 – 0910
Weather: Clear (Cloudy) Rain Other _____
Wind Conditions (Speed/Direction): 15 mph - N

FIELD DATA

Water Depth: 13.7 Tide: Ebb (Flood) Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA (~68°F)

SAMPLE/PUSH #1

Core ID#: AGE-01-1 Coring Time: 0855 Penetration Depth: 1.5 M Core Recovery: 1.2 m
Collection Method: Ponar / Vibracore / Manual (Piston) Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

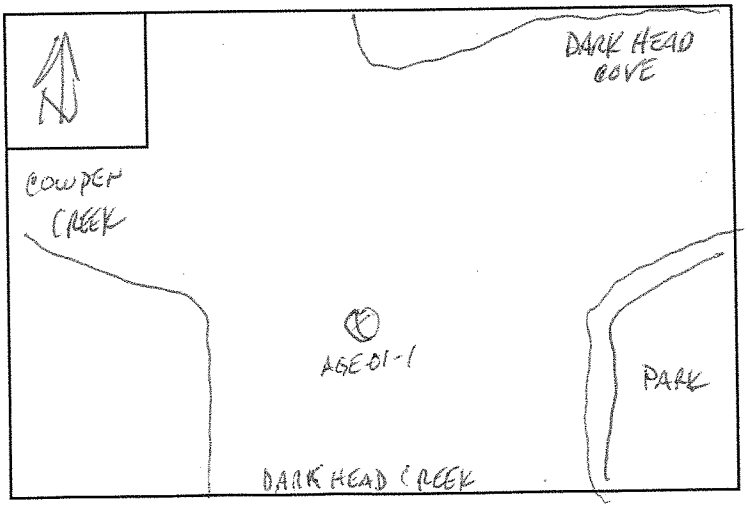
DGPS DATA

Operator: RMK
File Name: AGE-01-1
Lat / N: 603952.41
Lon / E: 1473817.95
PDOP: 5.0

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040~~ (TSC1) 5010469344 TRIMBLE GEOXH

COMMENTS / NOTES

PISTON CORE SAMPLE FOR AGE DATING
Bottles Labeled
CPC 1-58
8/24/10 @ 0930



Preparer's Initial: RMK 9/1/10 MKM 9-27-10

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rev:11/08

FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date: 8/25/10**

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: RCB, HJS RAB (TT)
Arrival/Departure Times: 1130 – 1208
Station ID #: AGE-02
Weather: Clear (Cloudy) Rain Other ____
Photos: Y (N) Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): 10-18 mph N

FIELD DATA

Water Depth: ~~24'~~ 12'7" Tide: (Ebb) Flood Low Slack High Slack Other ____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: ~78°F

SAMPLE/PUSH #1

Core ID#: AGE-02 Coring Time: 1155 Penetration Depth: 1.5M Core Recovery: 1.45
Collection Method: Ponar / Vibracore / (Manual) (PISTON) Liner Material: (CAB) / Alum / SS / PE Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on (NA) Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ~~1155~~ Penetration Depth: ~~1.5m~~ Core Recovery: ~~1.45~~
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ~~1.5M~~ Core Recovery: ____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: RMK
File Name: AGE-02-01
Lat / N: 603258.90
Lon / E: 1474169.39
PDOP: 7.0

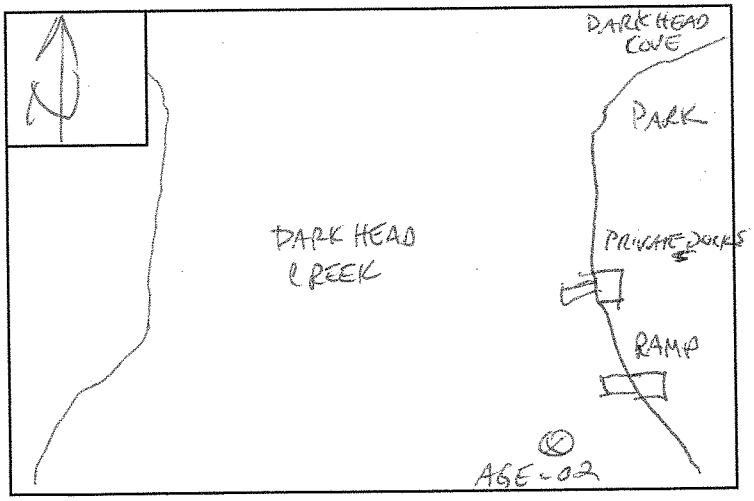
Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other ____
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEO XH 5010469344

COMMENTS / NOTES

PISTON CORE SAMPLE FOR AGE DATING

BOTTLES LABELED CON 1-73
8/25/10 @ 1230

Preparer's Initial: RMK



RMK 8/27/10 MKM 9-27-10

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rev:11/08

FIELD DATA SHEET

Project Name:	TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX		**Proj. #:** 22007.000
Site Name:	Dark Head Cove / Dark Head Creek / Cow Pen Creek		**Task #:** N/A
City:	Middle River	**State:** MD **Zip:**	**Date:** 8/23/10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: RCB, HIS, RAB(TT)
Arrival/Departure Times: 10:55 – 1136
Station ID #: ~~SD-95~~ AGE-03 X
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 mph N

FIELD DATA

Water Depth: 11.5 Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: AGE-03 Coring Time: 1125 Penetration Depth: 46" Core Recovery: 46"
Collection Method: Ponar / Vibracore / Manual (Piston) Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: RMK
File Name: AGE-03-1
Lat / N: 604666.92
Lon / E: 1474492.76
PDOP: 8.0

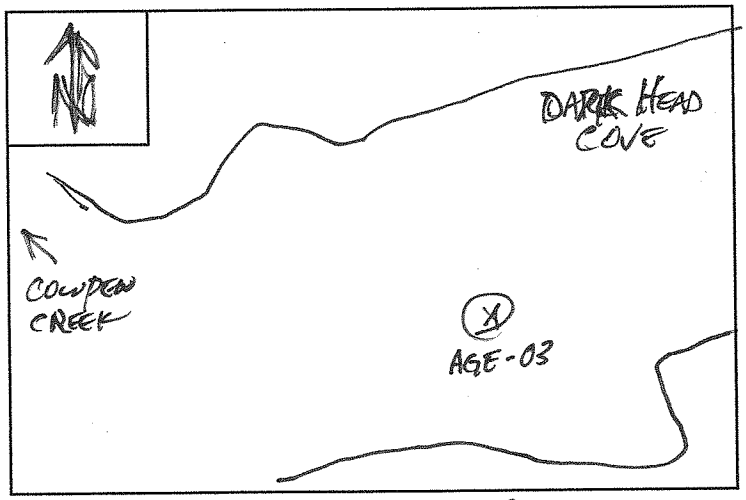
Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MARYLAND 1900
GPS Serial #: ~~0220139040 (TSC1)~~ 5010469344 TRIMBLE GEO XH

COMMENTS / NOTES

< 5.0 TO COORDINATES
PISTON CORE SAMPLE FOR AGE DATING.

AGE-03
Labeled DHC 1-56 @ 1330

Preparer's Initial:



9/2/10 MKM 9-27-10

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rev:11/08

FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date:** 8/23/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: RCB / HIS RAB (TT)
Arrival/Departure Times: 1140 –
Station ID #: ~~[illegible]~~ DHC-SED
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): 10-15 mph N

FIELD DATA

Water Depth: 11.5 Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: RMK
File Name: AGE-03-1
Lat / N: 604666.92
Lon / E: 1474492.76
PDOP: 8.0

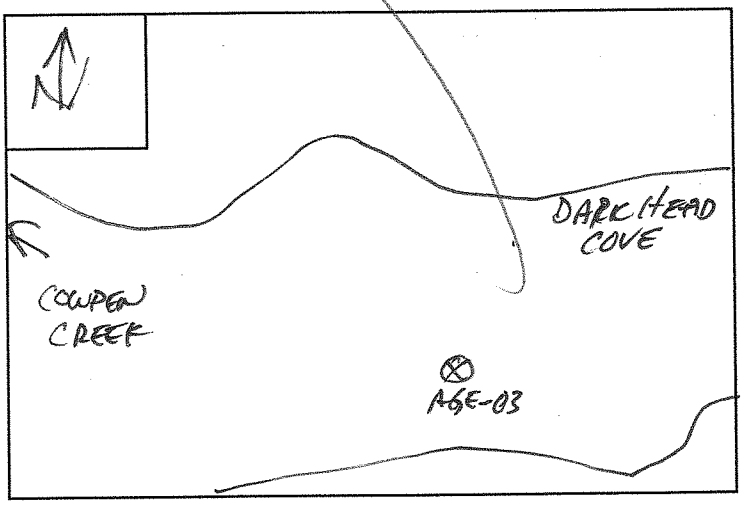
Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ 5010469344

COMMENTS / NOTES

DHC-SED-(1-12)-DATE & TIME

150 FT N.E. OF

Moved to new location / POC



Preparer's Initial: [signature]

[signature] 9/2/10 MKM 9-27

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 1

Project Name:	TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX		**Proj. #:** 22007.000
Site Name:	Dark Head Cove / Dark Head Creek / Cow Pen Creek		**Task #:** N/A
City:	Middle River	**State:** MD **Zip:**	**Date:** 8/23/10

Field Team Leader(s): RMK, MKM, T. Apanavage (TT)
Field Team Safety Coordinator: MKM / RMK
Field Crew: RCB / HIS RAB (TT)
Arrival/Departure Times: 1336 – 1637
Station ID #: DHC-SED-X
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 kph NE

FIELD DATA

Water Depth: 11.2' Tide: Ebb Flood Low Slack High Slack Other NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: DHC-SED-X Coring Time: 1345-1630 Penetration Depth: ~4.0' ea Core Recovery: ~3.0' ea
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

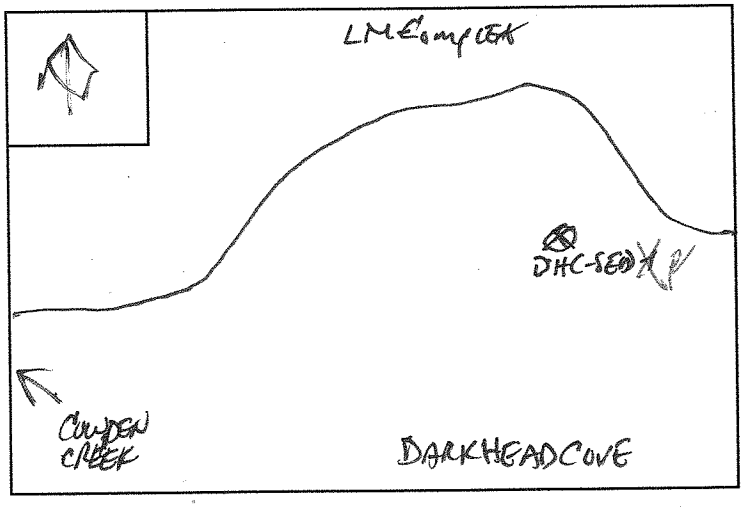
DGPS DATA

Operator: RMK
File Name: DHC-SED-1
Lat / N: 604655.26
Lon / E: 1473908.60
PDOP: 7.0

Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSG1)~~ 5010469344 TRIMBLE GEOXH

COMMENTS / NOTES

LOTS OF BOAT TRAFFIC
FILLED 7-5 GAL. BUCKETS W/ SEDIMENT
COLLECTED OVER 2 DAY PERIOD



Preparer's Initial: [signature]

[signature] 9/2/10 MKM 9-27-10

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**		**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**		**Task #: N/A**
City:	**Middle River**	**State: MD Zip:**	**Date:** 8/24/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Team Safety Coordinator: **MKM / RMK**
Field Crew: RCB/HIS RAB (TT)
Arrival/Departure Times: 1430 ~~1125~~ (8/24/10) - 1125 (8/2
Station ID #: CON-SED
Weather: Clear Cloudy Rain Other _____
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): 12-18 mph NE

FIELD DATA

Water Depth: 12.9' Tide: Ebb Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: ~76°F

SAMPLE/PUSH #1

Core ID#: CON-SED Coring Time: NA Penetration Depth: ~4.0' Core Recovery: ~3-4.5'
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Cor Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: RMK
File Name: CON-SED
Lat / N: 60389454
Lon / E: 1473874.19
PDOP: 7.0

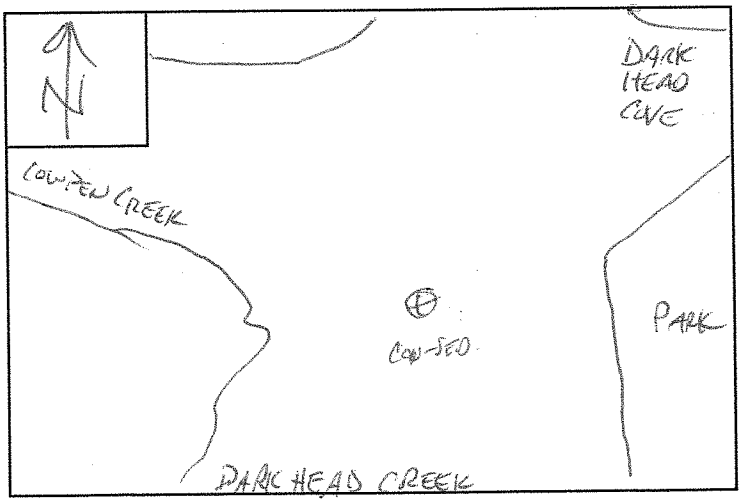
Coordinate Units: Lat/Lon US Survey Feet
Datum: NAD1983 Y N Other _____
Proj.: MD 1900
GPS Serial #: ~~0220139040 (TSC1)~~ 5010469344
TRIMBLE GEO XH

COMMENTS / NOTES

Collected over 2 day period...
~35 gals in 7-5 gal buckets for pre-design testing

~~Bottles Labeled CON 1-73~~
~~8/25/10 @ 1230~~ HIS 8/25/10

Preparer's Initial: [signature]



MKM
9-27-10

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

rev:11/08

FIELD DATA SHEET

Page 1 of 1

Project Name:	**TTNUS-LOCKHEED MARTIN MIDDLE RIVER COMPLEX**				**Proj. #: 22007.000**
Site Name:	**Dark Head Cove / Dark Head Creek / Cow Pen Creek**				**Task #: N/A**
City:	**Middle River**	**State:**	**MD**	**Zip:**	**Date:** 8/25/10

Field Team Leader(s): **RMK, MKM, T. Apanavage (TT)**
Field Crew: RCB, HJS RAB (TT)
Station ID #: CPC-SED
Photos: Y (N) Roll No./Exposure No.: _____

Field Team Safety Coordinator: **MKM / RMK**
Arrival/Departure Times: 13:30 - 14:45
Weather: Clear (Cloudy) Rain Other _____
Wind Conditions (Speed/Direction): 5-10 mph NE

FIELD DATA

Water Depth: 3'4" Tide: (Ebb) Flood Low Slack High Slack Other _____ NA
PID: NA Redox Potential: NA pH: NA H^2O Temp.: NA Air Temp.: ~85°F

SAMPLE/PUSH #1

Core ID#: CPC-SED01 Coring Time: 1335-1445 Penetration Depth: 4.0-5.0 Core Recovery: ~3'-4.5'
Collection Method: Ponar / (Vibracore) / Manual Liner Material: CAB / Alum / (SS) / PE Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Collection Method: Ponar / Vibracore / Manual Liner Material: CAB / Alum / SS / PE Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

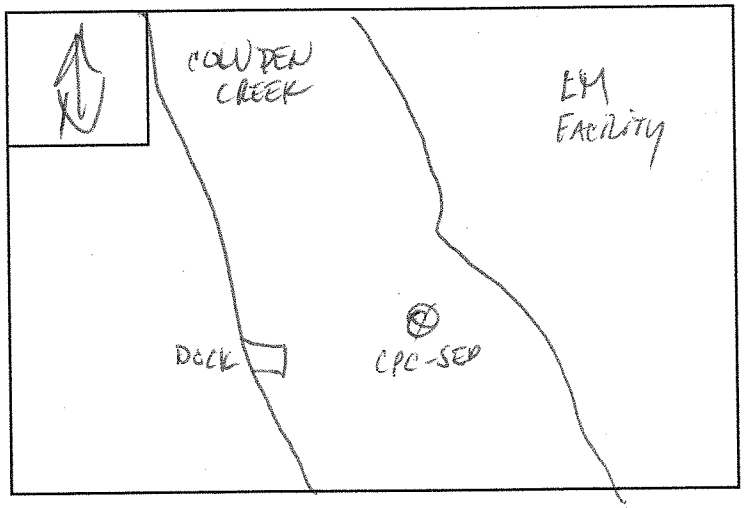
DGPS DATA

Operator: RMK
File Name: CPC-SED1
Lat / N: 604628.77
Lon / E: 1472535.69
PDOP: 7.0

Coordinate Units: Lat/Lon (US Survey Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: MD1900
GPS Serial #: ~~0220139040 (TSC1)~~ TRIMBLE GEOXH 5101469344

COMMENTS / NOTES

HAD TO STOP AT 14:45 DUE TO LOW TIDE
NEED 35 GALS OF SEDIMENT.
COLLECTED 7-5GAL. BUCKETS OVER 2-DAY PERIOD.



Preparer's Initial:

8/30/10 9-27-10

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date: 8/17/10	Chain of Custody Number: 141294
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528 3022	Lab Number:	Page 1 of 2
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact:		
Project Name and Location (State): MRC SEDIMENT SAMPLING	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: Middle River, MD			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals, plus Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-90-SS	8/17/10	1005			X		X						X	X	X	X	X	
SD-90-01		1007			X		X						X	X	X	X	X	
SD-90-02		1020			X		X						X	X	X	X	X	
SD-90-04		1030			X		X						X	X	X		X	
SD-91-SS		1125			X		X						X	X	X			
SD-91-01		1130			X		X						X	X	X			
SD-94-SS		1330			X		X						X	X	X			
SD-94-01		1335			X		X						X	X	X			
SD-94-02		1340			X		X						X	X	X			
SD-94-04		1345			X		X						X	X	X			
SD-97-SS		1220					X						X	X	X			
SD-97-01	8/17/10	1225			X		X						X	X	X			

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/17/10	1500	1. Received By: [signature]	[illegible]	1521
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TetraTech	Project Manager: Mike Martin	Date: 8/17/10	Chain of Custody Number: 141295
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528 3022 / 301 528 3000	Lab Number:	Page 2 of 2
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanowage; Lab Contact:		
Project Name and Location (State): MRC Sediment Sampling	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals + Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-97-02	8/17/10	1230			X		X						X	X	X			
SD-97-04	8/17/10	1235			X		X						X	X	X			

8/17/10

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/17/10	1500	1. Received By: [illegible]	[illegible]	[illegible]
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154233
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** _____
10251 Century Blvd Suite 200	301 528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Hannaman		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sediment Sampling Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: PP/Metals + Hg	PAH	PCB	Special Instructions/ Conditions of Receipt
SD-92-SS	8/17/10	1510			X		X						X	X	X	
SD-92-01		1515			X		X						X	X	X	
SD-93-SS		1555			X		X						X	X	X	
SD-93-01		1600			X		X						X	X	X	
SD-93-02		1605			X		X						X	X	X	
SD-93-04		1610			X		X						X	X	X	
SD-95-SS		1655			X		X						X	X	X	
SD-95-01		1700			X		X						X	X	X	
SD-95-02		1705			X		X						X	X	X	
SD-95-04		1710			X		X						X	X	X	
SD-Dup1-01	8/17/10	1201			X		X						X	X	X	
SD-Dup2-04	8/18/10	1110			X		X						X	X	X	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/18/10	1600	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154234
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301528 3000	Lab Number:	Page 2 of ____
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact:		
Project Name and Location (State): MRC Sediment Samp, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP metals	PAH	PCB	TOC	AVS	SEM	~~PEC~~	~~RAH~~	Special Instructions/ Conditions of Receipt
SD-87-SS	8/18/10	0855			X		X						X	X	X	X	X	X			
SD-87-01	8/18/10	0857											X	X	X	X	X	X			
SD-87-02		0859											X	X	X	X	X	X			
SD-87-04		0901											X	X	X		X	X			
SD-101-SS		0955											X	X	X	X	X	X			
SD-101-01		0957											X	X	X	X	X	X			
SD-101-02		0959											X	X	X	X	X	X			
SD-101-04		1001											X	X	X		X	X			
SD-102-SS		1030											X	X	X						
SD-102-01		1032											X	X	X						
SD-102-02		1034											X	X	X						
SD-102-04	8/18/10	1036			X		X						X	X	X						

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/18/10	1600	1. Received By: [signature]	8/18/10	1600
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA TECH	Mike Martin		154235
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 3 **of** _____
20251 Century Blvd, Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Aranavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. sampling, Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAH's	PCB's	Special Instructions/ Conditions of Receipt
SD-103-SS	8/18/10	1233											X	X	X	
SD-103-01		1235											X	X	X	
SD-103-02		1237											X	X	X	
SD-104-SS		1320											X	X	X	
SD-104-01		1322											X	X	X	
SD-104-02		1324											X	X	X	
SD-104-04		1326											X	X	X	
SD-105-SS		1428											X	X	X	
SD-105-01		1430											X	X	X	
SD-105-02		1432											X	X	X	
SD-105-04		1434											X	X	X	
[redacted]-SD-DUP3-SS	8/18/10	1215											X	X	X	

Possible Hazard Identification

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/18/10	1600	1. Received By	8/19/10	1600
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154239
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 4 of _____**
20251 Century Blvd. Ste 360	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Apanavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
NRC Seal Sampling, Middle R, VA (MD)			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: PCB Metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-86-SS	8/18/10	1520											X	X	X	
SD-86-01	↓	1522											X	X	X	
SD-86-02	↓	1524											X	X	X	
SD-86-04	8/18/10	1526											X	X	X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/18/10	1600	1. Received By	8/19/10	1600
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154238
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** 3
20251 Century Blvd, Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Provenzano		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Samp. Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-106-SS	8/18/10	1601			X		X						X	X	X	
SD-106-01	↓	1603			↓		↓						X	X	X	
SD-106-02	↓	1605			↓		↓						X	X	X	
SD-106-04	8/18/10	1607			↓		↓						X	X	X	
SD-100-SS	8/19/10	0847			↓		↓						X	X	X	
SD-100-01	↓	0849			↓		↓						X	X	X	
SD-100-02	↓	0851			↓		↓						X	X	X	
SD-100-04	↓	0853			↓		↓						X	X	X	
SD-98-SS	↓	1003			↓		↓						X	X	X	
SD-98-01	↓	1005			↓		↓						X	X	X	
SD-98-02	↓	1007			↓		↓						X	X	X	
SD-DUP4-02	8/19/10	1200			X		X						X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		141296
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 3**
20251 Century Blvd Suite 200	301 528 3022 301 528 3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD	Tom Aparicio		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sediment Sampling Anacostia River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: ppm Metals + Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-98-04	8/19/10	1009			X		X						X	X	X			
SD-96-SS		1053											X	X	X			
SD-96-01		1055											X	X	X			
SD-96-02		1057											X	X	X			
SD-96-04		1059											X	X	X			
SD-88-SS		1129											X	X	X	X	X	
SD-88-01		1131											X	X	X	X	X	
SD-88-02		1133											X	X	X	X	X	
SD-88-04		1135											X	X	X	X	X	
SD-89-SS		1205											X	X	X	X	X	
SD-89-01	↓	1207											X	X	X	X	X	
SD-DUP5-01	8/19/10	1615			X		X						X	X	X			

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike Martin		154237
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 3 **of** 3
20251 Century Blvd Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Aponavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Samp. Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PAHs	PAHs	PCBs	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-89-02	8/19/10	1229			X		X						X	X	X	X	X	
SD-89-04		1231											X	X	X		X	
SD-99-SS		1435											X	X	X	X	X	
SD-99-01		1437											X	X	X	X	X	
SD-99-02		1439											X	X	X	X	X	
SD-99-04	8/19/10	1441			X		X						X	X	X		X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA TECH	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141293
Address: 20251 CENTURY BLVD SUITE 200	Telephone Number (Area Code)/Fax Number: 3015283022 301-528-3000	Lab Number:	Page 1 of 2
City: GERMANTOWN State: MD Zip Code: 20874	Site Contact: Tony Apanonage	Lab Contact:	
Project Name and Location (State): MRC SEDIMENT SAMPLING	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: MIDDLE RIVER, MD			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP METALS	PAHs	PCBs	TOC	AVS, SEM	Special Instructions/ Conditions of Receipt
SD-85-SS	8/19/10	1632			X		X						X	X	X	X	X	
SD-85-01	↓	1634			↓		↓						X	X	X	X	X	
SD-85-02	↓	1636			↓		↓						X	X	X	X	X	
SD-85-04	8/19/10	1638			↓		↓						X	X	X		X	
SD-83-SS	8/20/10	1025			↓		↓						X	X	X			
SD-83-01	↓	1027			↓		↓						X	X	X			
SD-83-02	↓	1029			↓		↓						X	X	X			
SD-83-04	↓	1031			↓		↓						X	X	X			
SD-84-SS	↓	1103			↓		↓						X	X	X			
SD-84-01	↓	1105			↓		↓						X	X	X			
SD-84-02	8/20/10	1107			X		X						X	X	X			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/20/10	1520	1. Received By: [signature]	[illegible]	[illegible]
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

CHAIN OF CUSTODY RECORD

PROJECT MRC SEDIMENT SAMPLING
CONTACT MIKE MARTIN
COMPANY TETRA TECH
ADDRESS 20251 CENTURY BLVD SUITE 200, GERMANTOWN, MD 20874
EMAIL michael.martin@tetratech.com
PHONE 301 528 3022 **FAX** 301 528 3000
SAMPLED BY
Print Name TONY ARMANTROUT Sign

Turn Around Time
Standard ✓
If Authorized *
1 Week ☐
Other ☐ _____

META Environmental, Inc.
49 Clarendon St. - Watertown, Massachusetts - 02472
Tel (617) 923-4662 - Fax (617) 923-4610 - www.metaenv.com

Samp #	Date	Time	Field Sample ID	Container Size	Container G/P	Grab	Composite	# of Containers	Matrix	Preserv.	Parameters: Alkylated PAHs	Comments
	8/17/10	1005	SD-90-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1007	SD-90-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1020	SD-90-02	4oz	G	✓		1	SED	—	X	
	8/17/10	1330	SD-94-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1335	SD-94-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1340	SD-94-02	4oz	G	✓		1	SED	—	X	
	8/17/10	1220	SD-97-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1225	SD-97-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1230	SD-97-02	4oz	G	✓		1	SED	—	X	
	8/18/10	0855	SD-87-SS	4oz	G	✓		1	SED	—	X	
	8/18/10	0857	SD-87-01	4oz	G	✓		1	SED	—	X	
	8/18/10	0859	SD-87-02	4oz	G	✓		1	SED	—	X	
	8/18/10	0955	SD-101-SS	4oz	G	✓		1	SED	—	X	
	8/18/10	0957	SD-101-01	4oz	G	✓		1	SED	—	X	
	8/18/10	0959	SD-101-02	4oz	G	✓		1	SED	—	X	

Relinquished by _____ Date & Time 8/18/10 1600
Received by _____ Date & Time _____

Relinquished by _____ Date & Time _____
Received by _____ Date & Time _____

Relinquished by _____ Date & Time _____
Received by _____ Date & Time _____

Shipping Info.

Remarks

Temp °C_____

* Surcharges may apply

CHAIN OF CUSTODY RECORD

PROJECT MRC SEDIMENT SAMPLING
CONTACT MIKE MARTIN
COMPANY TETRA TECH
ADDRESS 20251 CENTURY BLVD SUITE 200, GERMANTOWN, MD 20874
EMAIL michael.martin@tetratech.com
PHONE 301 528 3022 **FAX** 301 528 3000
SAMPLED BY
Print Name TONY ARMANTROUT Sign

Turn Around Time
Standard ☑
If Authorized *
1 Week ☐
Other ☐ ____

META Environmental, Inc.
49 Clarendon St. - Watertown, Massachusetts - 02472
Tel (617) 923-4662 - Fax (617) 923-4610 - www.metaenv.com

Samp #	Date	Time	Field Sample ID	Container Size	Container G/P	Grab	Composite	# of Containers	Matrix	Preserv.	Parameters: Alkylated PAHs	Comments
	8/17/10	1005	SD-90-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1007	SD-90-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1020	SD-90-02	4oz	G	✓		1	SED	—	X	
	8/17/10	1330	SD-94-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1335	SD-94-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1340	SD-94-02	4oz	G	✓		1	SED	—	X	
	8/17/10	1220	SD-97-SS	4oz	G	✓		1	SED	—	X	
	8/17/10	1225	SD-97-01	4oz	G	✓		1	SED	—	X	
	8/17/10	1230	SD-97-02	4oz	G	✓		1	SED	—	X	
	8/18/10	0855	SD-87-SS	4oz	G	✓		1	SED	—	X	
	8/18/10	0857	SD-87-01	4oz	G	✓		1	SED	—	X	
	8/18/10	0859	SD-87-02	4oz	G	✓		1	SED	—	X	
	8/18/10	0955	SD-101-SS	4oz	G	✓		1	SED	—	X	
	8/18/10	0957	SD-101-01	4oz	G	✓		1	SED	—	X	
	8/18/10	0959	SD-101-02	4oz	G	✓		1	SED	—	X	

Relinquished by ____ Date & Time 8/18/10 1600
Received by ____ Date & Time ____

Relinquished by ____ Date & Time ____
Received by ____ Date & Time ____

Relinquished by ____ Date & Time ____
Received by ____ Date & Time ____

Shipping Info.

Remarks

Temp °C____

* Surcharges may apply

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154268
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 2 **of** 2
20251 Century Blvd Suite 2000	301-528-3022 301-528-3000		

City	State	Zip Code	Site Contact	Lab Contact
Germantown	MD	20874	Tony Apanavage	

Project Name and Location (State): MRC Sed Sampling, Middle River, MD

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PPmetals	PAHs	PCBs	TOC	Special Instructions/ Conditions of Receipt
Middle River Downstream SS	8/20/10	1337			X		X						X	X	X	+	
" " " 01	↓	1339			↓		↓						X	X	X		
" 02	↓	1341			↓		↓						X	X	X		
" 04	8/20/10	1343			X		X						X	X	X		
~~MR-Dup 1 SS~~																	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By [signature]	8/20/10	1520	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin	8/21/10	154236
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
20251 Century Blvd. Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Appanvage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MCR Sed. Sampling, Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		Analysis: ppMetals	PAHs	PCBs	TCC										Special Instructions/ Conditions of Receipt
Marshy Point - SS	8/21/10	1520			X			X							X	X	X	X										
Marshy Point - 01	"	1522			"			"							X	X	X											
Marshy Point - 02	"	1524			"			"							X	X	X											
Marshy Point - 04	"	1526			"			"							X	X	X											
Bowley's Quarters-SS	"	1545			"			"							X	X	X	X										
Bowley's Quarters-01	"	1547			"			"							X	X	X											
Bowley's Quarters-02	↓	1549			"			"							X	X	X											
Bowley's Quarters-04	8/21/10	1551			X			X							X	X	X											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/21/10	1621	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	mike martin	8/23/10	154232
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
20251 Century Blvd Suite 300	301-528-3022 301-528-3000		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
Germantown	MD 20874	Tony Nemnonge	
Project Name and Location (State)	**Carrier/Waybill Number**		
MCR Sed Sampling			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Other	Analysis (Attach list if more space is needed): PCB Congeners	PAHs	PCBs	Dioxins/ Furans	TOC	Hardness	TSS	Special Instructions/ Conditions of Receipt
PW-01	8/23/10	0818			X		X						X	X				X	X	X	See Table 1-1 Aug. 2010
PW-02		0917											X	X				X	X	X	
PW-03		1007											X	X	X	X		X	X	X	
PW-04		1344											X	X	X	X		X	X	X	
PW-05		1401											X	X	X	X		X	X	X	
PW-06		1247											X	X		X		X	X	X	
PW-07	8/23/10	1315			X		X						X	X				X	X	X	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/23/10	1530	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154241
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** 2
20251 Century Blvd, Ste. 2000	301-528-3022		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Agnanna		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sediment Sampling Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: Pb 210	Cs 137	Special Instructions/ Conditions of Receipt
DHC-3 4-6 cm	8/23/10	1330			X		X						X	X	
DHC-8 14-16 cm	↓	↓			↓		↓						↓	↓	
DHC-16 30-32 cm															
DHC-26 50-52 cm															
DHC-38 74-76 cm															
DHC-55 108-110 cm															
CPC-3 4-6 cm	8/24/10	0930													
CPC-8 14-16 cm															
CPC-16 30-32 cm															
CPC-27 52-54 cm															
CPC-39 76-78 cm															
CPC-57 112-114 cm	↓	↓			↓		↓						↓	↓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
	8/26/10	1200			
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt N/A

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154244
Address: 20251 Century Blvd., Ste. 2000	Telephone Number (Area Code)/Fax Number: 301-528-3022	Lab Number:	Page 2 of 2
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact:		
Project Name and Location (State):	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Pb 210	Cs 137	Special Instructions/ Conditions of Receipt
Con-3 4-6cm	8/25/10	12:30			X		X								
Con-10 18-20cm															
Con-21 40-42cm															
Con-35 68-70cm															
Con-50 98-100cm															
Con-72 142-144cm															
Con-71 140-142 cm MS															MS/MSD [illegible] be mix[illegible] if needed
Con-70 138-140cm MSD															

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/26/10	1200	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

LABORATORY TEST REQUEST FORM

FINDLING, INC.

Client: TETRA TECH Date: 8/31/10

Project Name: MRC SEDIMENT Project No.: _____ Lab No. _____

DATE / Boring No.	Sample No.	Depth	TEST REQUIRED: Moisture	Sieve Analysis	Hydrometer	Atterberg Limits	Unit Weight	Modified Proctor	Standard Proctor	CBR	Consolidation	Direct Shear	Triaxial ____	Permeability ASTM D-5084-03	SPECIFIC GRAVITY	% passing No. 200 Sie					Remarks
8/23/10	DHC-SED		X	X	X									X	X						TIME 1316
8/24/10	CON-SED		X	X	X									X	X						1420
8/25/10	CPC-SED		X	X	X									X	X						1310

8/31/10

Legend: Requested ☒ Started ☒ Completed ☒ ☒

NOTES: RUN 3 VERTICAL PERMEABILITY TESTS ON EACH CORE FOR TOTAL OF 9 TESTS. RUN GRAIN SIZE AND PERCENT SOLIDS FOR EACH INTERVAL CORRESPONDING TO EACH VERTICAL PERMEABILITY TEST FOR TOTAL OF 9 TESTS.

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: TetraTech NUS	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154250
Address: 20251 Century Blvd ste 2000	Telephone Number (Area Code)/Fax Number: 301 528 3022	Lab Number:	Page ____ of ____
City: German Town; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact: Veronica Bortot		
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed): 8260 VOC; 8270C SIM

Special Instructions/ Conditions of Receipt: VOCs by 8260; 1,4 dioxane by 8270C SIM

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOC	8270C SIM	Special Instructions/ Conditions of Receipt
DHC-PW-VOC-1	9/2/10	1345		X						X			X	X	
DHC-SW-VOC-1	"	1355		X						X			X	X	
DHC-PW-VOC-2	"	1544		X						X			X	X	only 1 vial collected
DHC-SW-VOC-2	"	1555		X						X			X	X	
DHC-PW-VOC-4	9/2/10	950		X						X			X	X	
DHC-SW-VOC-4	"	1002		X						X			X	X	
DHC-PW-VOC-5	"	1020		X						X			X	X	only 1 vial collected
DHC-SW-VOC-5	"	1120		X						X			X	X	
DHC-PW-VOC-3	"	1225		X						X			X	X	
DHC-~~Pems~~ SW-VOC-3	"	1229		X						X			X	X	
CPC-PW-VOC-1	"	1642		X						X			X	X	only 1 vial collected
CPC-SW-VOC-1	"	1645		X						X			X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Rick Samuels	9/2/10	1853	1. Received By:		
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Tetra Tech NUS	Project Manager: Mike Martin	Date: 9-3-10	Chain of Custody Number: 114514
Address: 2495 Century Blvd Ste 200	Telephone Number (Area Code)/Fax Number: (301) 528-5551	Lab Number:	Page _____ of _____
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Apanavage	Lab Contact: Veronica Bantz	
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOCs	Special Instructions/ Conditions of Receipt
DHC-SW-VOC-7	9-3-10	0815		X						2			X	
DHC-SW-VOC-6	9-3-10	0800		X						2			X	
DHC-SW-VOC-DUP	9-3-10	0000		X						2			X	DHC-SW-VOC-7

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date: 9-3-10	Time: 0822	1. Received By	Date / Time
2. Relinquished By	Date	Time	2. Received By	Date / Time
3. Relinquished By	Date	Time	3. Received By	Date / Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

APPENDIX B—
INVESTIGATION-DERIVED WASTE FORMS

D29902

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MDD986381318	1	610-656-4012	002881400 FLE

GENERATOR

5. Generator's Name and Mailing Address

LMC Properties, Inc.
195 Chesapeake Park Plaza
Baltimore, MD 21220
Generator's Phone: 610-656-4012

Generator's Site Address (if different than mailing address)

Lockheed Martin Corp. - Middle River Complex
195 Chesapeake Park Plaza
Baltimore, MD 21220

6. Transporter 1 Company Name: Envirite of Pennsylvania, Inc. — U.S. EPA ID Number: PAD010154045

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

Envirite of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
Facility's Phone: 800-878-1618

U.S. EPA ID Number: PAD010154045

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-hazardous material (soil, water)	10	DM	3,000 EST	P	505 NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1. EW Approval # 13343 File Ref. # YS4242 ERG HWH 236 V.C.# 023581

Box#
Trailer # 3007Y

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Musheno — Signature: Michael Musheno — Month: 01 Day: 27 Year: 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kenneth C. Smith — Signature: Ken C. Smith — Month: 01 Day: 27 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

5680 lbs

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Shane Biese — Signature: Shane Biese — Month: 01 Day: 27 Year: 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

ENVIRITE of PENNSYLVANIA INC.
730 VOGELSONG ROAD
YORK CITY INDUSTRIAL PARK
YORK, PA. 17404
PHONE (717)846-1900

TICKET NO. 36192

Weigh in: 01:59 pm 02/01/10

TRUCK NO. 13343

GROSS WT. 5680 LBS

TARE WT. 0 LBS

NET WT. 5680 LBS

NET WT. 2.84 TONS

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM [redacted] WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MD[illegible]	1	810-650-4012	002881400 FLE

5. Generator's Name and Mailing Address
[illegible] Properties, Inc.
195 Chesapeake Park Plaza
Baltimore, MD 21220
Generator's Phone: 810-650-4012

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp. - Middle River Complex
195 Chesapeake Park Plaza
Baltimore, MD 21220

6. Transporter 1 Company Name: Emerald of Pennsylvania, Inc. — U.S. EPA ID Number: PAD010154045

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Emerald of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
Facility's Phone: 800-878-1618
U.S. EPA ID Number: PAD010154045

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-hazardous material (soil, water)	10	DM	3,100	P	500 [illegible]
	2.			EST		
	3.					
	4.					

14. Special Handling Instructions and Additional Information
[illegible] HWH-[illegible] VC# C23581 Box # Trailer # 3007X

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Musheno — Signature: Michael Musheno — Month: [illegible] Day: [illegible] Year: 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Smith — Signature: [illegible] Smith — Month: [illegible] Day: [illegible] Year: 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
[illegible]one:
[illegible]ternate Facility (or Generator) — Month Day Year

[illegible] Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
2. 3. 4.

[illegible]ator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Signature — Month Day Year

[illegible] revious editions are obsolete.

GENERATOR'S INITIAL COPY

GENERATOR — INT'L — TRANSPORTER — [illegible]ITY

ENVIRITE OF PENNSYLVANIA, INC.
Technology For The Environment

BILL OF LADING

CARRIER
Envirite of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
(717) 846-1900
(717) 854-6757 Fax

Central Dispatch Number
(800) 501-5659

EPA ID: PAD010154045

ICC: MC 311577

Bol No.: № 60444 Y
Load No.: 31353
Stream No.: 13343
Date: 01/27/10

TO CONSIGNEE Envirite of PA Inc	FROM SHIPPER Lockheed Martin CORP
STREET 730 Vogelsong RD	STREET 195 Chesapeake Park Plaza
DESTINATION York PA 17404	ORIGIN Baltimore STATE MD ZIP 21220

No Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	PACKING GROUP	WEIGHT (subject to correction)
1. 10 DM		Non-Hazardous material soil, water				3,000 P EST
2.		Manifest # 00288140 FLE				
3.						

DRIVER Ken Smith

IF PRODUCT TEMPERATURE IS OVER 110°F, CALL DISPATCH
TRUCK # 430057 TRAILER # 9007 Y

BOX # SPOTTED _____
BOX # REMOVED _____

Miles	Pump Used Y (N)	Liner Used Y (N)	
Finish	P/U Date 01/27/10	Del. Date	Gross Wt.
Start	P/U Time	Del. Time	Tare Wt.
TOTAL	In 9:30 Out 10:30	In Out	Net Wt.

Special Instruction & Explain Delay at Shippers	Special Instruction & Explain Delay at Consignee
	Liftgate Services

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
I have inspected the trailer and certify it acceptable for loading and verify that the times and explanation listed above are correct.

I have inspected the trailer and certify it completely empty and verify that the times and explanation listed above are correct.

Shipper Signature X Michael Mucham	Consignee Signature X
Loading Date 01/27/10	Unloading Date
Driver Signature X Ken C Smith	Driver Signature X

CARRIER - ENVIRITE OF PENNSYLVANIA, INC.. - YORK, PA 17404

CARRIER - ENVIRITE OF PENNSYLVANIA, INC. - YORK, PA 17404

WHITE - Consignee CANARY - Corporate PINK - Transporter GOLDENROD - Shipper

Remediation Shipping Paper/Transportation Checklist **Hazardous Waste Manifest No.** 006288140 FLE

A. DESCRIPTION

A1. N/A UN/NA Identification Number, Proper Shipping Name, Hazard Class/Division Number, Packing Group
A2. | Subsidiary hazard class(es) or division number(s), if any, in parenthesis
A3. | Total Quantity of Material
A4. | 24-Hour Emergency Phone Number and Response Information ERG No.: _____
A5. | Page of Pages, *for multiple shipping papers/EPA Manifest/Air Decs.*
A6. | Shipper's Certification, *as applicable*
A7. ↓ Small Quantity Exception/Dangerous Goods In Excepted Quantities/Diagnostic Specimen/Sample

B. ADDITIONAL DESCRIPTIONS - GENERAL

NOTE: Shipment consists of 10 drums non DOT non RCRA regulated waste (low soil cuttings/water)

B1. N/A Exemptions "DOT-E-*ex.#*"
B2. | "Limited Quantity" (*not to exceed 66 lb gross weight*)
B3. | "X" or "RQ" (if RQ, Hazardous Substance Contact @ 1-800-424-8802)
B4. | "Waste" for RCRA regulated material
B5. | "Residue: Last contained..." - *required for empty tank cars with hazmat residue*
B6. | "Mixture" or "Solution" - as appropriate.
B7. | *(technical names), for poisons/mixtures/n.o.s./generic proper shipping names*
B8. | "Hot" - *for elevated temperature materials only*
B9. | "Marine Pollutant" and constituent in ( ), *for bulk shipments only*
B10. | *(hazardous substance names) per 172.101 appendix if not contained in proper shipping name*
B11. | *(EPA waste identification numbers)- used to identify the hazardous substance*
B12. | "Shipment Contains Oil" (*see 130.11 for applicability*)
B13. | "Poison" - *if not identified in proper shipping name or hazard class*
B14. ↓ "Poison-Inhalation Hazard" & Zone A, Zone B, Zone C, or Zone D, as appropriate*
(**Note Special Provisions 1-6 and 13 in Column 7 of 172.101*)

C. MARKING FOR NON-BULK PACKAGINGS

C1. N/A Proper Shipping Name, UN/NA Identification Number
C2. | (*technical name*)
C3. | (*EPA waste identification number*)
C4. | "RQ"
C5. ↓ Exemption Packagings "DOT-E-*ex.#*"
C6. ✓ Consignee's Name & Address
C7. N/A Net or Gross quantity for non-rad Dangerous Goods (adjacent to PSN & UN#)
C8. | Ltd. Qty - PSN only *per 172.301(a)(1) or* UN ID# placed in square-on-point border *per 172.315*
C9. | Package Orientation Arrows, *for liquids in inner packagings*
C10. | "Inhalation Hazard", unless these words appear on the label prescribed in *172.416* or *172.429*
C11. | ORM-D Marking
C12. | EX-number, *for Class 1 (Explosives) only*
C13. | "Overpack" adjacent to proper shipping name marking [*see 173.25(a)(4)*]
C14. ↓ TSCA PCB Marking (*for actual or source concentration greater than or equal to 50 ppm* *)
(* Note Potential Vehicle Marking Requirements in *40 CFR 761.40*)

D. MARKING FOR BULK PACKAGINGS (DUMP TRUCKS OR ROLL-OFFS)

D1. N/A UN/NA Identification Number on orange panel or placard or white square-on-point display configuration as prescribed by 172.302 and 172.332

E. LABELING

E1. N/A Primary Hazard Label(s): _____
E2. | Subsidiary Hazard Label(s) with class/division: _____
E3. | Hazardous Wastes Label(s)
E4. ↓ Cargo Aircraft Only

F. PLACARDING

F1. 172.504 Table 1 Materials - Any Amount
F1.1. N/A Explosives (1.1)
F1.2. | Explosives (1.2)
F1.3. | Explosives (1.3)
F1.4. | Poison Gas (2.3)
F1.5. | Dangerous When Wet (4.3)
F1.6. | Organic Peroxide (5.2, Type B, liquid or solid, temperature controlled)
F1.7. ↓ Poison (6.1, Inhalation Hazard, Zone A or B)* (Primary or Subsidiary _____)

*(*Materials subject to the "Poison-Inhalation Hazard" notation must be placarded with a POISON INHALATION HAZARD or POISON GAS placard , as appropriate, and also placarded for any other hazard class required for that material in 172.504)*

F. PLACARDING (continued)

F2. N/A 172.504 Table 2 Materials - 1,001 lb: _____

G. PACKAGING

G1. _____ Container Type: (Inner Pkg) _____

G2. _____ Container Type: (Outer Pkg) _____

G3. _____ Container Type: (Bulk Pkg) 55 gallon steel drum

H. PAPERWORK AND MISCELLANEOUS ITEMS

H1. N/A Shipping Paper/Hazardous Waste Manifest/Bill of Lading/Airway Bill/Shipper's Declaration

H2. ___ Instructions for Maintenance of Exclusive Use Shipments

H3. ___ Small Quantity/Excepted Quantity Statement on Package, *for 173.4 shipments* / **DGEQ** statement per *2.7.7.2* noted on Airway Bill

H4. ___ Photograph, *if applicable*

H5. ✓ Vehicle Inspection

H6. N/A Check Driver's Qualifications

H7. N/A Emergency Telephone Number Notification, if required, see 172.604(b)

H8. ✓ LMC Notification Instructions

I. ADDITIONAL REQUREMENTS FOR RADIOACTIVE MATERIAL SHIPMENTS

I1. SHIPPING PAPER DESCRIPTIONS

I1.1. N/A Radionuclide Symbol(s), *per 173.435*

I1.2. ___ Physical & Chemical Form, *if not special form*

I1.3. ___ Activity per Package

I1.4. ___ "Highway Route Controlled Quantity" *or* "HRCQ"

I1.5 ___ Radioactive Labels

I1.6. ___ Transport Index, *if Yellow-II or Yellow-III*

I1.7. ___ CSI, if fissile shipment

I1.8. ___ Fissile Excepted, *if applicable*

I1.9. ✓ Package Identification (NRC CoC, IAEA CoCA)

I1.10. ___ "Exclusive Use Shipment"

I2. MARKING FOR NON-BULK PACKAGINGS

I2.1. N/A Gross Weight, *for radioactive material packages in excess of 110 lb*

I2.2. ___ "TYPE A" or "TYPE B" - *for radioactive material packages, as appropriate*

I2.3. ___ Trefoil Symbol for Type B packages

I2.4. ___ "Radioactive"; "Radioactive – LSA" ; "Radioactive – SCO"

I2.5. ___ Package Certification Number, *for radioactive material packages, as appropriate*

I2.6. ___ IP-1, IP-2, IP-3 markings

I2.7. ___ "USA" on all IP and Type A packagings

I2.8. ✓ Packaging manufacturer marking on Type A

I3. LABELING

I3.1. N/A Radioactive Labels

I3.2. ___ "EMPTY" Label

I3.3. ___ CSI (Fissile) label

I3.4. ✓ "Radioactive Material, Excepted Package" handling label

I4. PLACARDING (172.504 TABLE 1 MATERIALS - ANY AMOUNT)

I4.1. N/A Radioactive (7, Yellow-III Label or LSA/SCO Exclusive Use Shipments)

I4.2. ✓ Radioactive - Highway Route Controlled Quantity

I5. PAPERWORK AND MISCELLANEOUS ITEMS

H1. N/A Certificate of Compliance

H2. ___ Special Form Certification

H3. ___ Instructions for Maintenance of Exclusive Use Shipments

H4. ___ Radioactive Excepted Package statement per *10.8.8.3.3* on Airway Bill

H7. ___ Limited Quantity Radioactive Material" *for multiple hazard limited quantity Class 7.*

H8. ___ Health Physics Information

H8. ✓ NRC Manifest #540 for radioactive waste shipment for land disposal.

Peer Review **Date**

D29903

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number MDR000 516760 (KS)	2. Page 1 of 1	3. Emergency Response Phone 610-666-4012	4. Manifest Tracking Number 002881401 FLE

GENERATOR

5. Generator's Name and Mailing Address
LMC Properties, Inc.
195 Chesapeake Park Plaza
Baltimore, MD 21220
Generator's Phone: 410-682-1315

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp. - Martin State Airport
701 Wilson Point Road
Middle River, MD 21220

6. Transporter 1 Company Name: Envirite of Pennsylvania, Inc.
U.S. EPA ID Number: PAD010154045

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Envirite of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
Facility's Phone: 800-678-1618
U.S. EPA ID Number: PAD010154045

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-DOT, Non-RCRA regulated liquids (IDW soil cuttings/water)	1	DM	30 EST	G	506 NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. EW Approval # 17507 File Ref. # ERG HWH-236 V.C.# 023581
Box # Trailer # 3007 Y

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Mushano
Signature: Michael Mushano
Month 01 Day 27 Year 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Kenneth C. Smith
Signature: Kenneth C. Smith
Month 01 Day 27 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
240 165
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H111			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Shane Biese
Signature: Shane Biese
Month 01 Day 27 Year 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator ID Number: MD [illegible] ~~[illegible]~~ (LIS)
2. Page 1 of 1
3. Emergency Response Phone: 610-656-4017
4. Manifest Tracking Number: 002881401 FLE

5. Generator's Name and Mailing Address:
LMC Properties, Inc.
195 Chesapeake Park Place
Baltimore, MD 21220
Generator's Phone: 410-682-1315

Generator's Site Address (if different than mailing address):
Lockheed Martin Corp. - Martin State Airport
701 Wilson Point Road
Middle River, MD 21220

6. Transporter 1 Company Name: Envirite of Pennsylvania, Inc.
U.S. EPA ID Number: PAD010154045

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
Envirite of Pennsylvania, Inc.
739 Vogelsong Road
York, PA 17404
Facility's Phone: 800-878-1618

U.S. EPA ID Number: PAD010154045

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Non-DOT, Non-RCRA regulated liquids (IDW soil cuttings/water)	1	DM	SC EST	G	506	NONE	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: LLW Approval # 17-007 File Ref. # ERG HWH-236 VC # C23551
Box #
Trailer # 3407 Y

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Musheno
Signature: Michael Musheno
Month: 01 Day: 25 Year: 10

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible]
Signature: [illegible]
Month: 01 Day: 25 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

ENVIRITE OF PENNSYLVANIA, INC.
Technology For The Environment

ILL OF LADING

Envirite of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
(717) 846-1900
(717) 854-6757 Fax

Central Dispatch Number
(800) 501-5659

EPA ID: PAD010154045

ICC: MC 311577

Bol No.: № 60443 Y
Load No.: 31354
Stream No.: 17507
Date: 01/27/10

TO CONSIGNEE Envirite of PA Inc
STREET 730 Vogelsong RD
DESTINATION YORK PA 17404

FROM SHIPPER Lockheed Martin Corp
STREET 7 Wilson Point RD
ORIGIN Middle River STATE MD ZIP 21220

No Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	ID Number	PACKING GROUP	WEIGHT (subject to correction)
1 DM		non-DOT non-RCRA regulated Liquid				30 G
		Manifest # 002881401FCE				EST

IF PRODUCT TEMPERATURE IS OVER 110°F, CALL DISPATCH

RIVER Ken Smith TRUCK # 430057 TRAILER # 3007Y

BOX # SPOTTED _____
BOX # REMOVED _____

Miles	Pump Used Y (N)	Liner Used Y (N)	
nish	P/U Date 01/27/10	Del. Date	Gross Wt.
art	P/U Time	Del. Time	Tare Wt.
OTAL	In 9:00 Out 9:15	In Out	Net Wt.

pecial Instruction & Explain Delay at Shippers	Special Instruction & Explain Delay at Consignee
	Liftgate Services
	Shipper Changed EPA ID #
	MDR-000518760

is is to certify that the above-named materials are properly classified, described, ckaged, marked and labeled, and are in proper condition for transportation according the applicable regulations of the Department of Transportation.
ave inspected the trailer and certify it acceptable for loading and verify that the times d explanation listed above are correct.

I have inspected the trailer and certify it completely empty and verify that the times and explanation listed above are correct.

ipper Signature X Michael Marlen
ading Date 01/27/10
iver Signature X Ken C. Smith

Consignee Signature X
Unloading Date
Driver Signature X

ARRIER - ENVIRITE OF PENNSYLVANIA, INC.. - YORK, PA 17404

CARRIER - ENVIRITE OF PENNSYLVANIA, INC. - YORK, PA 17404

WHITE - Consignee CANARY - Corporate PINK - Transporter GOLDENROD - Shipper

Remediation Shipping Paper/Transportation Checklist **Hazardous Waste Manifest No.** 004288140 1 PLE

A. DESCRIPTION

A1. N/A UN/NA Identification Number, Proper Shipping Name, Hazard Class/Division Number, Packing Group
A2. ___ Subsidiary hazard class(es) or division number(s), if any, in parenthesis
A3. ___ Total Quantity of Material
A4. ___ 24-Hour Emergency Phone Number and Response Information ERG No.: ___
A5. ___ Page of Pages, *for multiple shipping papers/EPA Manifest/Air Decs.*
A6. ___ Shipper's Certification, *as applicable*
A7. ___ Small Quantity Exception/Dangerous Goods In Excepted Quantities/Diagnostic Specimen/Sample

B. ADDITIONAL DESCRIPTIONS - GENERAL

NOTE: Shipment consists of 1 drum non-DOT non RCRA regulated waste (IDW soil/cuttings/water

B1. N/A Exemptions "DOT-E-*ex.#*"
B2. ___ "Limited Quantity" (*not to exceed 66 lb gross weight*)
B3. ___ "X" or "RQ" (if RQ, Hazardous Substance Contact @ 1-800-424-8802)
B4. ___ "Waste" for RCRA regulated material
B5. ___ "Residue: Last contained..." - *required for empty tank cars with hazmat residue*
B6. ___ "Mixture" or "Solution" - as appropriate.
B7. ___ *(technical names), for poisons/mixtures/n.o.s./generic proper shipping names*
B8. ___ "Hot" - *for elevated temperature materials only*
B9. ___ "Marine Pollutant" and constituent in ( ), *for bulk shipments only*
B10. ___ *(hazardous substance names) per 172.101 appendix if not contained in proper shipping name*
B11. ___ *(EPA waste identification numbers)- used to identify the hazardous substance*
B12. ___ "Shipment Contains Oil" (*see 130.11 for applicability*)
B13. ___ "Poison" - *if not identified in proper shipping name or hazard class*
B14. ___ "Poison-Inhalation Hazard" & Zone A, Zone B, Zone C, or Zone D, as appropriate*
(**Note Special Provisions 1-6 and 13 in Column 7 of 172.101*)

C. MARKING FOR NON-BULK PACKAGINGS

C1. N/A Proper Shipping Name, UN/NA Identification Number
C2. ___ (*technical name*)
C3. ___ (*EPA waste identification number*)
C4. ___ "RQ"
C5. ___ Exemption Packagings "DOT-E-*ex.#*"
C6. ___ Consignee's Name & Address
C7. ___ Net or Gross quantity for non-rad Dangerous Goods (adjacent to PSN & UN#)
C8. ___ Ltd. Qty - PSN only *per 172.301(a)(1) or* UN ID# placed in square-on-point border *per 172.315*
C9. ___ Package Orientation Arrows, *for liquids in inner packagings*
C10. ___ "Inhalation Hazard", unless these words appear on the label prescribed in *172.416* or *172.429*
C11. ___ ORM-D Marking
C12. ___ EX-number, *for Class 1 (Explosives) only*
C13. ___ "Overpack" adjacent to proper shipping name marking [*see 173.25(a)(4)*]
C14. ___ TSCA PCB Marking (*for actual or source concentration greater than or equal to 50 ppm* *)
(* Note Potential Vehicle Marking Requirements in *40 CFR 761.40*)

D. MARKING FOR BULK PACKAGINGS (DUMP TRUCKS OR ROLL-OFFS)

D1. N/A UN/NA Identification Number on orange panel or placard or white square-on-point display configuration as prescribed by 172.302 and 172.332

E. LABELING

E1. N/A Primary Hazard Label(s): ___
E2. ___ Subsidiary Hazard Label(s) with class/division: ___
E3. ___ Hazardous Wastes Label(s)
E4. ___ Cargo Aircraft Only

F. PLACARDING

F1. 172.504 Table 1 Materials - Any Amount
F1.1. N/A Explosives (1.1)
F1.2. ___ Explosives (1.2)
F1.3. ___ Explosives (1.3)
F1.4. ___ Poison Gas (2.3)
F1.5. ___ Dangerous When Wet (4.3)
F1.6. ___ Organic Peroxide (5.2, Type B, liquid or solid, temperature controlled)
F1.7. ___ Poison (6.1, Inhalation Hazard, Zone A or B)* (Primary or Subsidiary ___)

*(*Materials subject to the "Poison-Inhalation Hazard" notation must be placarded with a POISON INHALATION HAZARD or POISON GAS placard , as appropriate, and also placarded for any other hazard class required for that material in 172.504)*

Remediation Shipping Paper/Transportation Checklist **Hazardous Waste Manifest No.** 00288140l FLE

F. PLACARDING (continued)

F2. N/A 172.504 Table 2 Materials - 1,001 lb: _____

G. PACKAGING

G1. _____ Container Type: (Inner Pkg) _____

G2. _____ Container Type: (Outer Pkg) _____

G3. _____ Container Type: (Bulk Pkg) 55 Gallon Metal Drum

H. PAPERWORK AND MISCELLANEOUS ITEMS

H1. ✓ Shipping Paper/Hazardous Waste Manifest/Bill of Lading/Airway Bill/Shipper's Declaration

H2. NA Instructions for Maintenance of Exclusive Use Shipments

H3. _____ Small Quantity/Excepted Quantity Statement on Package, *for 173.4 shipments* / **DGEQ** statement per *2.7.7.2* noted on Airway Bill

H4. _____ Photograph, *if applicable*

H5. ✓ Vehicle Inspection

H6. ✓ Check Driver's Qualifications

H7. NA Emergency Telephone Number Notification, if required, see 172.604(b)

H8. ✓ LMC Notification Instructions

I. ADDITIONAL REQUREMENTS FOR RADIOACTIVE MATERIAL SHIPMENTS

I1. SHIPPING PAPER DESCRIPTIONS

I1.1. NA Radionuclide Symbol(s), *per 173.435*

I1.2. ___ Physical & Chemical Form, *if not special form*

I1.3. ___ Activity per Package

I1.4. ___ "Highway Route Controlled Quantity" *or* "HRCQ"

I1.5 ___ Radioactive Labels

I1.6. ___ Transport Index, *if Yellow-II or Yellow-III*

I1.7. ___ CSI, if fissile shipment

I1.8. ___ Fissile Excepted, *if applicable*

I1.9. ___ Package Identification (NRC CoC, IAEA CoCA)

I1.10 ___ "Exclusive Use Shipment"

I2. MARKING FOR NON-BULK PACKAGINGS

I2.1. ___ Gross Weight, *for radioactive material packages in excess of 110 lb*

I2.2. ___ "TYPE A" or "TYPE B" - *for radioactive material packages, as appropriate*

I2.3. ___ Trefoil Symbol for Type B packages

I2.4. ___ "Radioactive"; "Radioactive – LSA" ; "Radioactive – SCO"

I2.5. ___ Package Certification Number, *for radioactive material packages, as appropriate*

I2.6. ___ IP-1, IP-2, IP-3 markings

I2.7. ___ "USA" on all IP and Type A packagings

I2.8. ___ Packaging manufacturer marking on Type A

I3. LABELING

I3.1. ___ Radioactive Labels

I3.2. ___ "EMPTY" Label

I3.3. ___ CSI (Fissile) label

I3.4. ___ "Radioactive Material, Excepted Package" handling label

I4. PLACARDING (172.504 TABLE 1 MATERIALS - ANY AMOUNT)

I4.1. ___ Radioactive (7, Yellow-III Label or LSA/SCO Exclusive Use Shipments)

I4.2. ___ Radioactive - Highway Route Controlled Quantity

I5. PAPERWORK AND MISCELLANEOUS ITEMS

H1. ___ Certificate of Compliance

H2. ___ Special Form Certification

H3. ___ Instructions for Maintenance of Exclusive Use Shipments

H4. ___ Radioactive Excepted Package statement per *10.8.8.3.3* on Airway Bill

H7. ___ Limited Quantity Radioactive Material" *for multiple hazard limited quantity Class 7.*

H8. ___ Health Physics Information

H8. ✓ NRC Manifest #540 for radioactive waste shipment for land disposal.

Peer Review **Date**

ENVIRITE of PENNSYLVANIA INC.
730 VOGELSONG ROAD
YORK CITY INDUSTRIAL PARK
YORK, PA. 17404
PHONE (717)846-1900

TICKET NO. 36193

Weigh in: 01:59 pm 02/01/10

TRUCK NO. 17507

GROSS WT. 240 LBS

TARE WT. 0 LBS

NET WT. 240 LBS

NET WT. 0.12 TONS

APPENDIX C—
DATA TABLES AND VALIDATION REPORTS

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	MRC-SW/SD-1	SD-1
SAMPLE ID	BOWLEYS_QUARTERS-SS	MIDDLE_RIVER_DOWNSTREAM-	MARSHY_POINT-SS	MRC-SED-1	SD-1-031705
SAMPLE DATE	20100821	20100820	20100821	20101014	20050317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	UPGRADIENT STORMWATER	BACKGROUND
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	6.1 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	6.1 U
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	6.1 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	6.1 U
1,1-DICHLOROETHANE	NA	NA	NA	NA	6.1 U
1,1-DICHLOROETHENE	NA	NA	NA	NA	6.1 U
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	6.1 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	6.1 U
1,2-DIBROMOETHANE	NA	NA	NA	NA	6.1 U
1,2-DICHLOROBENZENE	NA	NA	NA	NA	6.1 U
1,2-DICHLOROETHANE	NA	NA	NA	NA	6.1 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	6.1 U
1,3-DICHLOROBENZENE	NA	NA	NA	NA	6.1 U
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	6.1 U
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	12 U
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	12 U
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	12 U
ACETONE	NA	NA	NA	NA	12 J
BENZENE	NA	NA	NA	NA	6.1 U
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	6.1 U
BROMOFORM	NA	NA	NA	NA	6.1 U
BROMOMETHANE	NA	NA	NA	NA	12 U
CARBON DISULFIDE	NA	NA	NA	NA	6.1 U
CARBON TETRACHLORIDE	NA	NA	NA	NA	6.1 U
CHLOROBENZENE	NA	NA	NA	NA	6.1 U
CHLORODIBROMOMETHANE	NA	NA	NA	NA	6.1 U
CHLOROETHANE	NA	NA	NA	NA	12 U
CHLOROFORM	NA	NA	NA	NA	6.1 U
CHLOROMETHANE	NA	NA	NA	NA	12 U
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	6.1 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	6.1 U
CYCLOHEXANE	NA	NA	NA	NA	6.1 U
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	6.1 U
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	6.1 U

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	MRC-SW/SD-1	SD-1
SAMPLE ID	BOWLEYS_QUARTERS-SS	MIDDLE_RIVER_DOWNSTREAM-	MARSHY_POINT-SS	MRC-SED-1	SD-1-031705
SAMPLE DATE	20100821	20100820	20100821	20101014	20050317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	UPGRADIENT STORMWATER	BACKGROUND
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	6.1 U
M+P-XYLENES	NA	NA	NA	NA	6.1 U
METHYL ACETATE	NA	NA	NA	NA	6.1 U
METHYL CYCLOHEXANE	NA	NA	NA	NA	6.1 U
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	6.1 U
METHYLENE CHLORIDE	NA	NA	NA	NA	12 U
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	6.1 U
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	6.1 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	6.1 U
TOLUENE	NA	NA	NA	NA	6.1 U
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	6.1 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	6.1 U
TRICHLOROETHENE	NA	NA	NA	NA	6.1 U
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	6.1 U
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	12 U
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	410 U
1,2-DICHLOROBENZENE	NA	NA	NA	NA	410 U
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	410 U
1,3-DICHLOROBENZENE	NA	NA	NA	NA	410 U
1,4-DICHLOROBENZENE	NA	NA	NA	NA	410 U
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	410 U
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	410 U
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	410 U
2,4-DICHLOROPHENOL	NA	NA	NA	NA	410 U
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	410 U
2,4-DINITROPHENOL	NA	NA	NA	NA	820 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	410 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	410 U
2-CHLORONAPHTHALENE	NA	NA	NA	NA	410 U
2-CHLOROPHENOL	NA	NA	NA	NA	410 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	30 J
2-METHYLPHENOL	NA	NA	NA	NA	410 U
2-NITROANILINE	NA	NA	NA	NA	410 U
2-NITROPHENOL	NA	NA	NA	NA	410 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	820 U
3-NITROANILINE	NA	NA	NA	NA	410 U
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	820 U
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	410 U
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	410 U
4-CHLOROANILINE	NA	NA	NA	NA	410 U

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	MRC-SW/SD-1	SD-1
SAMPLE ID	BOWLEYS_QUARTERS-SS	MIDDLE_RIVER_DOWNSTREAM-	MARSHY_POINT-SS	MRC-SED-1	SD-1-031705
SAMPLE DATE	20100821	20100820	20100821	20101014	20050317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	UPGRADIENT STORMWATER	BACKGROUND
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	410 U
4-METHYLPHENOL	NA	NA	NA	NA	410 U
4-NITROANILINE	NA	NA	NA	NA	410 U
4-NITROPHENOL	NA	NA	NA	NA	820 U
ACENAPHTHENE	5.7 UJ	11 J	6 UJ	NA	410 U
ACENAPHTHYLENE	6.7 UJ	23 J	7.2 UJ	NA	180 J
ANILINE	NA	NA	NA	NA	410 U
ANTHRACENE	29 J	31 J	18 J	NA	140 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	78.3	99.9	12.5	NA	911
BAP EQUIVALENT-POSITIVE RESULTS	75.0	97.8	5.4	NA	706
BENZIDINE	NA	NA	NA	NA	410 U
BENZO(A)ANTHRACENE	53 J	67 J	24 J	NA	650
BENZO(A)PYRENE	49 J	64 J	6.3 UJ	NA	530
BENZO(B)FLUORANTHENE	96 J	150 J	30 J	NA	800
BENZO(G,H,I)PERYLENE	93 J	120 J	6.3 UJ	NA	320 J
BENZO(K)FLUORANTHENE	12 UJ	7.6 UJ	13 UJ	NA	190 J
BENZOIC ACID	NA	NA	NA	NA	820 U
BENZYL ALCOHOL	NA	NA	NA	NA	410 U
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	410 U
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	410 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	730 J
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	2500
CARBAZOLE	NA	NA	NA	NA	410 U
CHRYSENE	68 J	80 J	32 J	NA	730
DIBENZO(A,H)ANTHRACENE	6.5 UJ	4.2 UJ	7 UJ	NA	410 U
DIBENZOFURAN	NA	NA	NA	NA	410 U
DIETHYL PHTHALATE	NA	NA	NA	NA	410 U
DIMETHYL PHTHALATE	NA	NA	NA	NA	410 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	410 U
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	410 U
FLUORANTHENE	140 J	130 J	67 J	NA	1000
FLUORENE	23 J	12 J	8.3 UJ	NA	54 J
HEXACHLOROBENZENE	NA	NA	NA	NA	410 U
HEXACHLOROBUTADIENE	NA	NA	NA	NA	410 U
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	410 U
HEXACHLOROETHANE	NA	NA	NA	NA	410 U
INDENO(1,2,3-CD)PYRENE	110 J	120 J	6.5 UJ	NA	280 J
ISOPHORONE	NA	NA	NA	NA	410 U
NAPHTHALENE	51 J	36 J	50 J	NA	410 U
NITROBENZENE	NA	NA	NA	NA	410 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	410 U
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	410 U
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	410 U
PENTACHLOROPHENOL	NA	NA	NA	NA	820 U
PHENANTHRENE	82 J	65 J	54 J	NA	550
PHENOL	NA	NA	NA	NA	410 U
PYRENE	100 J	140 J	49 J	NA	1200
PYRIDINE	NA	NA	NA	NA	410 U
TOTAL PAHS	894	1049	324	NA	6654

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	MRC-SW/SD-1	SD-1
SAMPLE ID	BOWLEYS_QUARTERS-SS	MIDDLE_RIVER_DOWNSTREAM-	MARSHY_POINT-SS	MRC-SED-1	SD-1-031705
SAMPLE DATE	20100821	20100820	20100821	20101014	20050317
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	UPGRADIENT STORMWATER	BACKGROUND
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	4.4 UJ	4.7 UJ	4.7 UJ	NA	41 U
AROCLOR-1221	5.6 UJ	6 UJ	6 UJ	NA	41 U
AROCLOR-1232	5 UJ	5.4 UJ	5.4 UJ	NA	41 U
AROCLOR-1242	4.8 UJ	5.1 UJ	5.1 UJ	NA	41 U
AROCLOR-1248	2.8 UJ	3 UJ	3 UJ	NA	41 U
AROCLOR-1254	4.2 UJ	4.5 UJ	4.5 UJ	NA	41 U
AROCLOR-1260	4.2 UJ	4.5 UJ	4.5 UJ	NA	41 U
TOTAL AROCLOR	0 U	0 U	0 U	NA	0 U
METALS (MG/KG)					
ANTIMONY	0.48 J	2.1 J	0.43 J	1.9	0.54 B
ARSENIC	13.5 J	14.1 J	11.2 J	2.9	2.6
BARIUM	NA	NA	NA	57.5	NA
BERYLLIUM	1.6 J	1.8 J	1.7 J	0.26	1.2
CADMIUM	0.95 J	2.5 J	0.84 J	0.12 J	0.47
CHROMIUM	39.3 J	119 J	36.3 J	122	90.9
COBALT	NA	NA	NA	4.8	NA
COPPER	110 J	224 J	67.1 J	255	12
HEXAVALENT CHROMIUM	NA	NA	NA	NA	0.49 U
IRON	NA	NA	NA	33700	NA
LEAD	104 J	173 J	67.1 J	5.8	151
MANGANESE	NA	NA	NA	518	NA
MERCURY	0.43 J	0.72 J	0.25 J	0.034 J	0.71
MOLYBDENUM	NA	NA	NA	4	NA
NICKEL	44.2 J	41.5 J	46.8 J	32.3	69.4
SELENIUM	2 J	2 J	2.1 J	0.26 J	0.48 U
SILVER	0.59 J	1.4 J	0.47 J	0.057 J	0.097 U
THALLIUM	0.24 J	0.25 J	0.27 J	0.023 B	0.29 U
VANADIUM	NA	NA	NA	13.4	NA
ZINC	327 J	372 J	248 J	53.4	80
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	81
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	35200 J	30800 J	34300 J	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-78	SD-2	SD-3	SD-4	SD-5
SAMPLE ID	SD-78-SS	SD-2-031805	SD-3-031705	SD-4-031705	SD-5-031805
SAMPLE DATE	20081117	20050318	20050317	20050317	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,1,2,2-TETRACHLOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,1,2-TRICHLOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,1-DICHLOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,1-DICHLOROETHENE	NA	12 U	5.9 U	6.9 U	10 U
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	12 U	5.9 U	6.9 U	10 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	12 U	5.9 U	6.9 U	10 U
1,2-DIBROMOETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,2-DICHLOROBENZENE	NA	12 U	5.9 U	6.9 U	10 U
1,2-DICHLOROETHANE	NA	12 U	5.9 U	6.9 U	10 U
1,2-DICHLOROPROPANE	NA	12 U	5.9 U	6.9 U	10 U
1,3-DICHLOROBENZENE	NA	12 U	5.9 U	6.9 U	10 U
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	12 U	5.9 U	6.9 U	10 U
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	24 U	12 U	14 U	20 U
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	24 U	12 U	14 U	20 U
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	24 U	12 U	14 U	20 U
ACETONE	NA	19 B	7.1 J	14 U	15 B
BENZENE	NA	12 U	5.9 U	6.9 U	10 U
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	12 U	5.9 U	6.9 U	10 U
BROMOFORM	NA	12 U	5.9 U	6.9 U	10 U
BROMOMETHANE	NA	24 U	12 U	14 U	20 U
CARBON DISULFIDE	NA	12 U	5.9 U	6.9 U	10 U
CARBON TETRACHLORIDE	NA	12 U	5.9 U	6.9 U	10 U
CHLOROBENZENE	NA	12 U	5.9 U	6.9 U	10 U
CHLORODIBROMOMETHANE	NA	12 U	5.9 U	6.9 U	10 U
CHLOROETHANE	NA	24 U	12 U	14 U	20 U
CHLOROFORM	NA	12 U	5.9 U	6.9 U	10 U
CHLOROMETHANE	NA	24 U	12 U	14 U	20 U
CIS-1,2-DICHLOROETHENE	NA	12 U	5.9 U	6.9 U	10 U
CIS-1,3-DICHLOROPROPENE	NA	12 U	5.9 U	6.9 U	10 U
CYCLOHEXANE	NA	12 U	5.9 U	6.9 U	10 U
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	12 U	5.9 U	6.9 U	10 U
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	12 U	5.9 U	6.9 U	10 U

LOCATION	SD-78	SD-2	SD-3	SD-4	SD-5
SAMPLE ID	SD-78-SS	SD-2-031805	SD-3-031705	SD-4-031705	SD-5-031805
SAMPLE DATE	20081117	20050318	20050317	20050317	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	12 U	5.9 U	6.9 U	10 U
M+P-XYLENES	NA	12 U	5.9 U	6.9 U	10 U
METHYL ACETATE	NA	12 U	5.9 U	6.9 U	10 U
METHYL CYCLOHEXANE	NA	12 U	5.9 U	6.9 U	10 U
METHYL TERT-BUTYL ETHER	NA	12 U	5.9 U	6.9 U	10 U
METHYLENE CHLORIDE	NA	24 U	12 U	14 U	20 U
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	12 U	5.9 U	6.9 U	10 U
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	12 U	5.9 U	6.9 U	10 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	12 U	5.9 U	6.9 U	10 U
TOLUENE	NA	12 U	5.9 U	6.9 U	10 U
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	12 U	5.9 U	6.9 U	10 U
TRANS-1,3-DICHLOROPROPENE	NA	12 U	5.9 U	6.9 U	10 U
TRICHLOROETHENE	NA	12 U	5.9 U	6.9 U	10 U
TRICHLOROFLUOROMETHANE	NA	12 U	5.9 U	6.9 U	10 U
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	24 U	12 U	14 U	20 U
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	800 U	390 U	460 U	680 U
1,2-DICHLOROBENZENE	NA	800 U	390 U	460 U	680 U
1,2-DIPHENYLHYDRAZINE	NA	800 U	390 U	460 U	680 U
1,3-DICHLOROBENZENE	NA	800 U	390 U	460 U	680 U
1,4-DICHLOROBENZENE	NA	800 U	390 U	460 U	680 U
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1700 U	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	800 U	390 U	460 U	680 U
2,4,5-TRICHLOROPHENOL	NA	800 U	390 U	460 U	680 U
2,4,6-TRICHLOROPHENOL	NA	800 U	390 U	460 U	680 U
2,4-DICHLOROPHENOL	NA	800 U	390 U	460 U	680 U
2,4-DIMETHYLPHENOL	NA	800 U	390 U	460 U	680 U
2,4-DINITROPHENOL	NA	1600 U	790 U	920 U	1400 U
2,4-DINITROTOLUENE	NA	800 U	390 U	460 U	680 U
2,6-DINITROTOLUENE	NA	800 U	390 U	460 U	680 U
2-CHLORONAPHTHALENE	NA	800 U	390 U	460 U	680 U
2-CHLOROPHENOL	NA	800 U	390 U	460 U	680 U
2-METHYLNAPHTHALENE	1700 U	800 U	390 U	34 J	680 U
2-METHYLPHENOL	NA	800 U	390 U	460 U	680 U
2-NITROANILINE	NA	800 U	390 U	460 U	680 U
2-NITROPHENOL	NA	800 U	390 U	460 U	680 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	1600 U	790 U	920 U	1400 U
3-NITROANILINE	NA	800 U	390 U	460 U	680 U
4,6-DINITRO-2-METHYLPHENOL	NA	1600 U	790 U	920 U	1400 U
4-BROMOPHENYL PHENYL ETHER	NA	800 U	390 U	460 U	680 U
4-CHLORO-3-METHYLPHENOL	NA	800 U	390 U	460 U	680 U
4-CHLOROANILINE	NA	800 U	390 U	460 U	680 U

LOCATION	SD-78	SD-2	SD-3	SD-4	SD-5
SAMPLE ID	SD-78-SS	SD-2-031805	SD-3-031705	SD-4-031705	SD-5-031805
SAMPLE DATE	20081117	20050318	20050317	20050317	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	800 U	390 U	460 U	680 U
4-METHYLPHENOL	NA	800 U	390 U	460 U	680 U
4-NITROANILINE	NA	800 U	390 U	460 U	680 U
4-NITROPHENOL	NA	1600 U	790 U	920 U	1400 U
ACENAPHTHENE	1700 U	800 U	390 U	460 U	680 U
ACENAPHTHYLENE	1700 U	800 U	390 U	55 J	680 U
ANILINE	NA	800 U	390 U	460 U	680 U
ANTHRACENE	490 J	800 U	100 J	200 J	290 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	1973	616	736	1043	1678
BAP EQUIVALENT-POSITIVE RESULTS	188	172	541	813	1338
BENZIDINE	NA	800 U	390 U	460 U	680 U
BENZO(A)ANTHRACENE	1700 U	140 J	410	750	1200
BENZO(A)PYRENE	1700 U	140 J	420	630	1000
BENZO(B)FLUORANTHENE	1200 J	180 J	530	710	1500
BENZO(G,H,I)PERYLENE	1700 U	800 U	300 J	390 J	670 J
BENZO(K)FLUORANTHENE	1100 J	800 U	170 J	270 J	550 J
BENZOIC ACID	NA	1600 U	790 U	920 U	1400 U
BENZYL ALCOHOL	NA	800 U	390 U	460 U	680 U
BIS(2-CHLOROETHOXY)METHANE	NA	800 U	390 U	460 U	680 U
BIS(2-CHLOROETHYL)ETHER	NA	800 U	390 U	460 U	680 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	290 J	370 J	400 J	1500 J
BUTYL BENZYL PHTHALATE	NA	800 U	390 U	460 U	680 U
CARBAZOLE	NA	800 U	390 U	460 U	190 J
CHRYSENE	1600 J	190 J	450	830	1300
DIBENZO(A,H)ANTHRACENE	1700 U	800 U	390 U	460 U	680 U
DIBENZOFURAN	NA	800 U	390 U	460 U	680 U
DIETHYL PHTHALATE	NA	800 U	390 U	460 U	680 U
DIMETHYL PHTHALATE	NA	800 U	390 U	460 U	680 U
DI-N-BUTYL PHTHALATE	NA	800 U	390 U	460 U	680 U
DI-N-OCTYL PHTHALATE	NA	800 U	390 U	460 U	680 U
FLUORANTHENE	3200	310 J	750	1400	2300
FLUORENE	210 J	800 U	390 U	130 J	680 U
HEXACHLOROBENZENE	NA	800 U	390 U	460 U	680 U
HEXACHLOROBUTADIENE	NA	800 U	390 U	460 U	680 U
HEXACHLOROCYCLOPENTADIENE	NA	800 U	390 U	460 U	680 U
HEXACHLOROETHANE	NA	800 U	390 U	460 U	680 U
INDENO(1,2,3-CD)PYRENE	550 J	800 U	250 J	330 J	610 J
ISOPHORONE	NA	800 U	390 U	460 U	680 U
NAPHTHALENE	1700 U	800 U	390 U	460 U	680 U
NITROBENZENE	NA	800 U	390 U	460 U	680 U
N-NITROSODIMETHYLAMINE	NA	800 U	390 U	460 U	680 U
N-NITROSO-DI-N-PROPYLAMINE	NA	800 U	390 U	460 U	680 U
N-NITROSODIPHENYLAMINE	NA	800 U	390 U	460 U	680 U
PENTACHLOROPHENOL	NA	1600 U	790 U	920 U	1400 U
PHENANTHRENE	2800	100 J	450	1400	1300
PHENOL	NA	800 U	390 U	460 U	680 U
PYRENE	4200 K	270 J	880	1800	2200
PYRIDINE	NA	800 U	390 U	460 U	680 U
TOTAL PAHS	15350	1330	4710	8929	12920

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-78	SD-2	SD-3	SD-4	SD-5
SAMPLE ID	SD-78-SS	SD-2-031805	SD-3-031705	SD-4-031705	SD-5-031805
SAMPLE DATE	20081117	20050318	20050317	20050317	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	21 U	80 U	39 U	46 U	68 U
AROCLOR-1221	21 U	80 U	39 U	46 U	68 U
AROCLOR-1232	21 U	80 U	39 U	46 U	68 U
AROCLOR-1242	21 U	80 U	39 U	46 U	68 U
AROCLOR-1248	21 U	80 U	39 U	46 U	68 U
AROCLOR-1254	21 U	80 U	39 U	46 U	68 U
AROCLOR-1260	21 U	160	53	46 U	420 J
TOTAL AROCLOR	0 U	160	53	0 U	420
METALS (MG/KG)					
ANTIMONY	0.12 U	1.1 B	0.94 B	4.6	1.9 B
ARSENIC	2.1	5.7 K	2.1	3.3	4.6
BARIUM	14.8 J	NA	NA	NA	NA
BERYLLIUM	0.79 J	1.1 J	1	0.77	1 J
CADMIUM	0.072 B	7.9 K	0.42	20.5	20.9 K
CHROMIUM	13.3 J	138	103	113	203
COBALT	6.3	NA	NA	NA	NA
COPPER	7 J	113	14.9	25	61.2
HEXAVALENT CHROMIUM	NA	0.87 U	0.44 U	0.53 U	0.72 U
IRON	NA	NA	NA	NA	NA
LEAD	5.2 J	101	90.2	140	107
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.046	0.34	0.016 U	0.027	0.1
MOLYBDENUM	0.69	NA	NA	NA	NA
NICKEL	9	23.2	51.5	17.2	30
SELENIUM	0.8	1.9	1.6 K	1 U	0.87
SILVER	0.11 B	1.3	0.092 U	0.21 U	0.77
THALLIUM	0.21 U	0.56 U	0.28 U	0.62 UL	0.42 U
VANADIUM	14.2 J	NA	NA	NA	NA
ZINC	30.8	230	54.7	276	331
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	80	42	85	72	49
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-6	SD-7	SD-8	SD-9	SD-10
SAMPLE ID	SD-6-031805	SD-7-031805	SD-8-031805	SD-9-031805	SD-10-031805
SAMPLE DATE	20050318	20050318	20050318	20050318	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	12 U	10 U	10 U	16 U	14 U
1,1,2,2-TETRACHLOROETHANE	12 U	10 U	10 U	16 U	14 U
1,1,2-TRICHLOROETHANE	12 U	10 U	10 U	16 U	14 U
1,1,2-TRICHLOROTRIFLUOROETHANE	12 U	10 U	10 U	16 U	14 U
1,1-DICHLOROETHANE	12 U	10 U	10 U	16 U	14 U
1,1-DICHLOROETHENE	12 U	10 U	10 U	16 U	14 U
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	12 U	10 U	10 U	16 U	14 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	12 U	10 U	10 U	16 U	14 U
1,2-DIBROMOETHANE	12 U	10 U	10 U	16 U	14 U
1,2-DICHLOROBENZENE	12 U	10 U	10 U	16 U	14 U
1,2-DICHLOROETHANE	12 U	10 U	10 U	16 U	14 U
1,2-DICHLOROPROPANE	12 U	10 U	10 U	16 U	14 U
1,3-DICHLOROBENZENE	12 U	10 U	10 U	16 U	14 U
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	12 U	10 U	10 U	16 U	14 U
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	24 U	21 U	20 U	32 U	29 U
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	24 U	21 U	20 U	32 U	29 U
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	24 U	21 U	20 U	32 U	29 U
ACETONE	24 U	91 B	96 B	160 B	28 B
BENZENE	12 U	10 U	10 U	16 U	14 U
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	12 U	10 U	10 U	16 U	14 U
BROMOFORM	12 U	10 U	10 U	16 U	14 U
BROMOMETHANE	24 U	21 U	20 U	32 U	29 U
CARBON DISULFIDE	12 U	10 U	10 U	9.1 J	14 U
CARBON TETRACHLORIDE	12 U	10 U	10 U	16 U	14 U
CHLOROBENZENE	12 U	10 U	10 U	16 U	14 U
CHLORODIBROMOMETHANE	12 U	10 U	10 U	16 U	14 U
CHLOROETHANE	24 U	21 U	20 U	32 U	29 U
CHLOROFORM	12 U	10 U	10 U	16 U	14 U
CHLOROMETHANE	24 U	21 U	20 U	32 U	29 U
CIS-1,2-DICHLOROETHENE	12 U	10 U	10 U	16 U	14 U
CIS-1,3-DICHLOROPROPENE	12 U	10 U	10 U	16 U	14 U
CYCLOHEXANE	12 U	10 U	10 U	16 U	14 U
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	12 U	10 U	10 U	16 U	14 U
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	12 U	10 U	10 U	16 U	14 U

LOCATION	SD-6	SD-7	SD-8	SD-9	SD-10
SAMPLE ID	SD-6-031805	SD-7-031805	SD-8-031805	SD-9-031805	SD-10-031805
SAMPLE DATE	20050318	20050318	20050318	20050318	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	12 U	10 U	10 U	16 U	14 U
M+P-XYLENES	12 U	10 U	10 U	16 U	14 U
METHYL ACETATE	12 U	10 U	10 U	16 U	14 U
METHYL CYCLOHEXANE	12 U	10 U	10 U	16 U	14 U
METHYL TERT-BUTYL ETHER	12 U	10 U	10 U	16 U	14 U
METHYLENE CHLORIDE	24 U	21 U	20 U	32 U	29 U
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	12 U	10 U	10 U	16 U	14 U
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	12 U	10 U	10 U	16 U	14 U
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	12 U	10 U	10 U	16 U	14 U
TOLUENE	12 U	10 U	10 U	16 U	14 U
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	12 U	10 U	10 U	16 U	14 U
TRANS-1,3-DICHLOROPROPENE	12 U	10 U	10 U	16 U	14 U
TRICHLOROETHENE	12 U	10 U	10 U	16 U	14 U
TRICHLOROFLUOROMETHANE	12 U	10 U	10 U	16 U	14 U
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	24 U	21 U	20 U	32 U	29 U
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	790 U	680 U	670 U	1100 U	960 U
1,2-DICHLOROBENZENE	790 U	680 U	670 U	1100 U	960 U
1,2-DIPHENYLHYDRAZINE	790 U	680 U	670 U	1100 U	960 U
1,3-DICHLOROBENZENE	790 U	680 U	670 U	1100 U	960 U
1,4-DICHLOROBENZENE	790 U	680 U	670 U	1100 U	960 U
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	790 U	680 U	670 U	1100 U	960 U
2,4,5-TRICHLOROPHENOL	790 U	680 U	670 U	1100 U	960 U
2,4,6-TRICHLOROPHENOL	790 U	680 U	670 U	1100 U	960 U
2,4-DICHLOROPHENOL	790 U	680 U	670 U	1100 U	960 U
2,4-DIMETHYLPHENOL	790 U	680 U	670 U	1100 U	960 U
2,4-DINITROPHENOL	1600 U	1400 U	1300 U	2100 U	1900 U
2,4-DINITROTOLUENE	790 U	680 U	670 U	1100 U	960 U
2,6-DINITROTOLUENE	790 U	680 U	670 U	1100 U	960 U
2-CHLORONAPHTHALENE	790 U	680 U	670 U	1100 U	960 U
2-CHLOROPHENOL	790 U	680 U	670 U	1100 U	960 U
2-METHYLNAPHTHALENE	790 U	680 U	670 U	1100 U	960 U
2-METHYLPHENOL	790 U	680 U	670 U	1100 U	960 U
2-NITROANILINE	790 U	680 U	670 U	1100 U	960 U
2-NITROPHENOL	790 U	680 U	670 U	1100 U	960 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	1600 U	1400 U	1300 U	2100 U	1900 U
3-NITROANILINE	790 U	680 U	670 U	1100 U	960 U
4,6-DINITRO-2-METHYLPHENOL	1600 U	1400 U	1300 U	2100 U	1900 U
4-BROMOPHENYL PHENYL ETHER	790 U	680 U	670 U	1100 U	960 U
4-CHLORO-3-METHYLPHENOL	790 U	680 U	670 U	1100 U	960 U
4-CHLOROANILINE	790 U	680 U	670 U	1100 U	960 U

LOCATION	SD-6	SD-7	SD-8	SD-9	SD-10
SAMPLE ID	SD-6-031805	SD-7-031805	SD-8-031805	SD-9-031805	SD-10-031805
SAMPLE DATE	20050318	20050318	20050318	20050318	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	790 U	680 U	670 U	1100 U	960 U
4-METHYLPHENOL	790 U	680 U	670 U	1100 U	960 U
4-NITROANILINE	790 U	680 U	670 U	1100 U	960 U
4-NITROPHENOL	1600 U	1400 U	1300 U	2100 U	1900 U
ACENAPHTHENE	790 U	680 U	670 U	1100 U	190 J
ACENAPHTHYLENE	790 U	680 U	63 J	1100 U	960 U
ANILINE	790 U	680 U	670 U	1100 U	960 U
ANTHRACENE	790 U	680 U	120 J	180 J	500 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	970	537	1005	1270	1919
BAP EQUIVALENT-POSITIVE RESULTS	575	194	670	1270	1439
BENZIDINE	790 U	680 U	670 U	1100 U	960 U
BENZO(A)ANTHRACENE	440 J	140 J	580 J	790 J	1300
BENZO(A)PYRENE	450 J	150 J	500 J	810 J	1100
BENZO(B)FLUORANTHENE	490 J	200 J	800	1600	1400
BENZO(G,H,I)PERYLENE	370 J	110 J	310 J	670 J	740 J
BENZO(K)FLUORANTHENE	270 J	680 U	290 J	400 J	490 J
BENZOIC ACID	1600 U	1400 U	1300 U	2100 U	1900 U
BENZYL ALCOHOL	790 U	680 U	670 U	1100 U	960 U
BIS(2-CHLOROETHOXY)METHANE	790 U	680 U	670 U	1100 U	960 U
BIS(2-CHLOROETHYL)ETHER	790 U	680 U	670 U	1100 U	960 U
BIS(2-ETHYLHEXYL)PHTHALATE	1200 J	430 J	180 J	310 J	280 J
BUTYL BENZYL PHTHALATE	790 U	680 U	670 U	1100 U	960 U
CARBAZOLE	790 U	680 U	670 U	1100 U	250 J
CHRYSENE	410 J	140 J	710	1100	1300
DIBENZO(A,H)ANTHRACENE	790 U	680 U	670 U	160 J	960 U
DIBENZOFURAN	790 U	680 U	670 U	1100 U	960 U
DIETHYL PHTHALATE	790 U	680 U	670 U	1100 U	960 U
DIMETHYL PHTHALATE	790 U	680 U	670 U	1100 U	960 U
DI-N-BUTYL PHTHALATE	790 U	680 U	670 U	1100 U	960 U
DI-N-OCTYL PHTHALATE	790 U	680 U	670 U	1100 U	960 U
FLUORANTHENE	740 J	250 J	1500	2300	2700
FLUORENE	790 U	680 U	670 U	1100 U	250 J
HEXACHLOROBENZENE	790 U	680 U	670 U	1100 U	960 U
HEXACHLOROBUTADIENE	790 U	680 U	670 U	1100 U	960 U
HEXACHLOROCYCLOPENTADIENE	790 U	680 U	670 U	1100 U	960 U
HEXACHLOROETHANE	790 U	680 U	670 U	1100 U	960 U
INDENO(1,2,3-CD)PYRENE	290 J	95 J	280 J	560 J	630 J
ISOPHORONE	790 U	680 U	670 U	1100 U	960 U
NAPHTHALENE	790 U	680 U	670 U	1100 U	960 U
NITROBENZENE	790 U	680 U	670 U	1100 U	960 U
N-NITROSODIMETHYLAMINE	790 U	680 U	670 U	1100 U	960 U
N-NITROSO-DI-N-PROPYLAMINE	790 U	680 U	670 U	1100 U	960 U
N-NITROSODIPHENYLAMINE	790 U	680 U	670 U	1100 U	960 U
PENTACHLOROPHENOL	1600 U	1400 U	1300 U	2100 U	1900 U
PHENANTHRENE	330 J	130 J	410 J	810 J	2300
PHENOL	790 U	680 U	670 U	1100 U	960 U
PYRENE	870	270 J	1100	1700	2700
PYRIDINE	790 U	680 U	670 U	1100 U	960 U
TOTAL PAHS	4660	1485	6663	11080	15600

LOCATION	SD-6	SD-7	SD-8	SD-9	SD-10
SAMPLE ID	SD-6-031805	SD-7-031805	SD-8-031805	SD-9-031805	SD-10-031805
SAMPLE DATE	20050318	20050318	20050318	20050318	20050318
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1221	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1232	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1242	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1248	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1254	79 U	68 U	67 U	11000 U	190 U
AROCLOR-1260	540 J	110	370	54000	1300
TOTAL AROCLOR	540	110	370	54000	1300
METALS (MG/KG)					
ANTIMONY	1.7 B	0.47 B	1.1 B	2.1 B	1.9 B
ARSENIC	4.8 K	4.3 K	5.9	11.6	9.4
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.3 J	1.1 J	1.2 J	1.7 J	2.1 J
CADMIUM	34.8 K	5.6 K	5 K	6.1 K	4.9 K
CHROMIUM	391	76.8	89.1	103	87.1
COBALT	NA	NA	NA	NA	NA
COPPER	84.8	41.2	82.6	159	119
HEXAVALENT CHROMIUM	0.87 U	1.2	0.74 U	1.3 U	1.2 U
IRON	NA	NA	NA	NA	NA
LEAD	145	64.1	67.8	103	88.9
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.32	0.084	0.17	0.3	0.27
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	27.3	12.3	19.6	39	33
SELENIUM	1	0.9	0.85	2.1	2.1
SILVER	2.6	0.46	0.79	1.2	1.4
THALLIUM	0.51 U	0.46 U	0.46 B	0.69 U	0.67 U
VANADIUM	NA	NA	NA	NA	NA
ZINC	425	138	184	401	339
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	44	49	50	32	35
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-11	SD-12	SD-13	SD-14	SD-15
SAMPLE ID	SD-11-031805	SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE	20050318	20050318	20051020	20051020	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	20 UJ	6 U	19 UJ
1,1,1-TRICHLOROETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,1,2,2-TETRACHLOROETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,1,2-TRICHLOROETHANE	8.9 U	17 U	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,1-DICHLOROETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,1-DICHLOROETHENE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,1-DICHLOROPROPENE	NA	NA	20 UJ	6 U	19 UJ
1,2,3-TRICHLOROBENZENE	NA	NA	20 UJ	6 U	19 UJ
1,2,3-TRICHLOROPROPANE	NA	NA	20 UJ	6 U	19 UJ
1,2,3-TRIMETHYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
1,2,4-TRICHLOROBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
1,2-DIBROMO-3-CHLOROPROPANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,2-DIBROMOETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,2-DICHLOROBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,2-DICHLOROETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,2-DICHLOROPROPANE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,3-DICHLOROBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
1,3-DICHLOROPROPANE	NA	NA	20 UJ	6 U	19 UJ
1,4-DICHLOROBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
2,2-DICHLOROPROPANE	NA	NA	20 UJ	6 U	19 UJ
2-BUTANONE	18 U	33 U	23 J	32 UR	95 UR
2-CHLOROETHYL VINYL ETHER	NA	NA	20 UJ	6 U	19 UJ
2-CHLOROTOLUENE	NA	NA	20 UJ	6 U	19 UJ
2-HEXANONE	18 U	33 U	98 UJ	32 U	95 UJ
4-CHLOROTOLUENE	NA	NA	20 UJ	6 U	19 UJ
4-ISOPROPYLTOLUENE	NA	NA	20 UJ	6 U	19 UJ
4-METHYL-2-PENTANONE	18 U	33 U	98 UJ	32 U	95 UJ
ACETONE	18 U	110 B	130 B	32 UR	95 B
BENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
BROMOBENZENE	NA	NA	20 UJ	6 U	19 UJ
BROMOCHLOROMETHANE	NA	NA	20 UJ	6 U	19 UJ
BROMODICHLOROMETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
BROMOFORM	8.9 U	17 U	20 UJ	6 U	19 UJ
BROMOMETHANE	18 U	33 U	39 UJ	13 U	38 UJ
CARBON DISULFIDE	8.9 U	17 U	20 UJ	6 U	19 UJ
CARBON TETRACHLORIDE	8.9 U	17 U	20 UJ	6 U	19 UJ
CHLOROBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
CHLORODIBROMOMETHANE	8.9 U	17 U	20 UJ	6 U	19 UJ
CHLOROETHANE	18 U	33 U	39 UJ	13 U	38 UJ
CHLOROFORM	8.9 U	17 U	20 UJ	6 U	19 UJ
CHLOROMETHANE	18 U	33 U	39 UJ	13 U	38 UJ
CIS-1,2-DICHLOROETHENE	8.9 U	17 U	20 UJ	6 U	19 UJ
CIS-1,3-DICHLOROPROPENE	8.9 U	17 U	20 UJ	6 U	19 UJ
CYCLOHEXANE	8.9 U	17 U	NA	NA	NA
DIBROMOMETHANE	NA	NA	20 UJ	6 U	19 UJ
DICHLORODIFLUOROMETHANE	8.9 U	17 U	39 UJ	13 U	38 UJ
DIISOPROPYL ETHER	NA	NA	20 UJ	6 U	19 UJ
ETHYL TERT-BUTYL ETHER	NA	NA	20 UJ	6 U	19 UJ
ETHYLBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ

LOCATION	SD-11	SD-12	SD-13	SD-14	SD-15
SAMPLE ID	SD-11-031805	SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE	20050318	20050318	20051020	20051020	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	20 UJ	6 U	19 UJ
ISOPROPYLBENZENE	8.9 U	17 U	20 UJ	6 U	19 UJ
M+P-XYLENES	8.9 U	17 U	39 UJ	13 U	38 UJ
METHYL ACETATE	8.9 U	17 U	NA	NA	NA
METHYL CYCLOHEXANE	8.9 U	17 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	8.9 U	17 U	8 J	13 U	6 J
METHYLENE CHLORIDE	18 U	33 U	20 B	7 B	19 B
NAPHTHALENE	NA	NA	7 J	6 U	19 UJ
N-BUTYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
N-PROPYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
O-XYLENE	8.9 U	17 U	20 UJ	6 U	19 UJ
SEC-BUTYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
STYRENE	8.9 U	17 U	20 B	6 B	19 UJ
TERT-AMYL METHYL ETHER	NA	NA	20 UJ	6 U	19 UJ
TERT-BUTYLBENZENE	NA	NA	20 UJ	6 U	19 UJ
TERTIARY-BUTYL ALCOHOL	NA	NA	39 UR	13 UR	38 UR
TETRACHLOROETHENE	8.9 U	17 U	20 UJ	6 U	19 UJ
TOLUENE	8.9 U	17 U	20 UJ	6 U	4 J
TOTAL 1,2-DICHLOROETHENE	NA	NA	39 UJ	13 U	38 UJ
TOTAL XYLENES	NA	NA	58 UJ	19 U	57 UJ
TRANS-1,2-DICHLOROETHENE	8.9 U	17 U	20 UJ	6 U	19 UJ
TRANS-1,3-DICHLOROPROPENE	8.9 U	17 U	20 UJ	6 U	19 UJ
TRICHLOROETHENE	8.9 U	17 U	20 UJ	6 U	19 UJ
TRICHLOROFLUOROMETHANE	8.9 U	17 U	39 UJ	13 U	38 UJ
VINYL ACETATE	NA	NA	20 UJ	6 U	19 UJ
VINYL CHLORIDE	18 U	33 U	39 UJ	13 U	38 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
1,2-DICHLOROBENZENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
1,2-DIPHENYLHYDRAZINE	600 U	1100 U	NA	NA	NA
1,3-DICHLOROBENZENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
1,4-DICHLOROBENZENE	600 U	1100 U	230 J	430 U	1300 UJ
1,4-DIOXANE	NA	NA	1300 UJ	430 U	1300 UJ
1-METHYLNAPHTHALENE	NA	NA	1300 UJ	430 U	1300 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	600 U	1100 U	1300 UJ	430 U	1300 UJ
2,4,5-TRICHLOROPHENOL	600 U	1100 U	3200 UJ	1100 U	3300 UJ
2,4,6-TRICHLOROPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
2,4-DICHLOROPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
2,4-DIMETHYLPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
2,4-DINITROPHENOL	1200 U	2200 U	3200 UJ	1100 U	3300 UJ
2,4-DINITROTOLUENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
2,6-DINITROTOLUENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
2-CHLORONAPHTHALENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
2-CHLOROPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
2-METHYLNAPHTHALENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
2-METHYLPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
2-NITROANILINE	600 U	1100 U	3200 UJ	1100 U	3300 UJ
2-NITROPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
3&4-METHYLPHENOL	NA	NA	1300 UJ	430 U	1300 UJ
3,3'-DICHLOROBENZIDINE	1200 U	2200 U	1300 UJ	430 U	1300 UJ
3-NITROANILINE	600 U	1100 U	3200 UJ	1100 U	3300 UJ
4,6-DINITRO-2-METHYLPHENOL	1200 U	2200 U	3200 UJ	1100 U	3300 UJ
4-BROMOPHENYL PHENYL ETHER	600 U	1100 U	1300 UJ	430 U	1300 UJ
4-CHLORO-3-METHYLPHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
4-CHLOROANILINE	600 U	1100 U	1300 UJ	430 U	1300 UJ

LOCATION	SD-11	SD-12	SD-13	SD-14	SD-15
SAMPLE ID	SD-11-031805	SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE	20050318	20050318	20051020	20051020	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	600 U	1100 U	1300 UJ	430 U	1300 UJ
4-METHYLPHENOL	600 U	1100 U	NA	NA	NA
4-NITROANILINE	600 U	1100 U	3200 UJ	1100 U	3300 UJ
4-NITROPHENOL	1200 U	2200 U	3200 UJ	1100 U	3300 UJ
ACENAPHTHENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
ACENAPHTHYLENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
ANILINE	600 U	1100 U	1300 UJ	430 U	1300 UJ
ANTHRACENE	600 U	1100 U	310 J	200 J	1300 UJ
AZOBENZENE	NA	NA	1300 UJ	430 U	1300 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	600 U	1993	3941	1308	2223
BAP EQUIVALENT-POSITIVE RESULTS	600 U	1443	3291	1093	1573
BENZIDINE	600 U	1100 U	3200 UJ	1100 U	3300 UJ
BENZO(A)ANTHRACENE	600 U	1100 J	2000 J	1100	1000 J
BENZO(A)PYRENE	600 U	1100 J	2500 J	790	1200 J
BENZO(B)FLUORANTHENE	600 U	1600	3700 J	1400	1800 J
BENZO(G,H,I)PERYLENE	600 U	760 J	2000 J	360 J	730 J
BENZO(K)FLUORANTHENE	600 U	530 J	1800 J	560	750 J
BENZOIC ACID	1200 U	2200 U	3200 UJ	1100 U	3300 UJ
BENZYL ALCOHOL	600 U	1100 U	1300 UJ	430 UJ	1300 UJ
BIS(2-CHLOROETHOXY)METHANE	600 U	1100 U	1300 UJ	430 U	1300 UJ
BIS(2-CHLOROETHYL)ETHER	600 U	1100 U	1300 UJ	430 U	1300 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	78 J	430 J	1400 J	210 J	820 J
BUTYL BENZYL PHTHALATE	600 U	160 J	1300 UJ	430 U	1300 UJ
CARBAZOLE	600 U	1100 U	1300 UJ	130 J	1300 UJ
CHRYSENE	600 U	1200	3000 J	1200	1400 J
DIBENZO(A,H)ANTHRACENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
DIBENZOFURAN	600 U	1100 U	1300 UJ	430 U	1300 UJ
DIETHYL PHTHALATE	600 U	1100 U	1300 UJ	430 U	1300 UJ
DIMETHYL PHTHALATE	600 U	1100 U	1300 UJ	430 U	1300 UJ
DI-N-BUTYL PHTHALATE	600 U	1100 U	1300 UJ	430 U	1300 UJ
DI-N-OCTYL PHTHALATE	600 U	1100 U	1300 UJ	430 U	1300 UJ
FLUORANTHENE	600 U	2000	4200 J	2400	2000 J
FLUORENE	600 U	1100 U	1300 UJ	81 J	1300 UJ
HEXACHLOROBENZENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
HEXACHLOROBUTADIENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
HEXACHLOROCYCLOPENTADIENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
HEXACHLOROETHANE	600 U	1100 U	1300 UJ	430 U	1300 UJ
INDENO(1,2,3-CD)PYRENE	600 U	660 J	2000 J	460	840 J
ISOPHORONE	600 U	1100 U	1300 UJ	430 U	1300 UJ
NAPHTHALENE	600 U	1100 U	250 J	430 U	1300 UJ
NITROBENZENE	600 U	1100 U	1300 UJ	430 U	1300 UJ
N-NITROSODIMETHYLAMINE	600 U	1100 U	1300 UJ	430 U	1300 UJ
N-NITROSO-DI-N-PROPYLAMINE	600 U	1100 U	1300 UJ	430 U	1300 UJ
N-NITROSODIPHENYLAMINE	600 U	1100 U	1300 UJ	430 U	1300 UJ
PENTACHLOROPHENOL	1200 U	2200 U	3200 UJ	1100 U	3300 UJ
PHENANTHRENE	600 U	550 J	1500 J	830	940 J
PHENOL	600 U	1100 U	1300 UJ	430 U	1300 UJ
PYRENE	600 U	1900	6800 J	2400	3900 J
PYRIDINE	600 U	1100 U	1300 UJ	430 U	1300 UJ
TOTAL PAHS	0 U	11400	30060	11781	14560

LOCATION	SD-11	SD-12	SD-13	SD-14	SD-15
SAMPLE ID	SD-11-031805	SD-12-031805	SD-13-SS	SD-14-SS	SD-15-SS
SAMPLE DATE	20050318	20050318	20051020	20051020	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1221	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1232	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1242	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1248	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1254	300 U	220 U	66 UJ	22 U	68 UJ
AROCLOR-1260	1400	1800	1400 J	480	1300 J
TOTAL AROCLOR	1400	1800	1400	480	1300
METALS (MG/KG)					
ANTIMONY	1 B	2.1 B	1.09 UJ	0.96	1.8 J
ARSENIC	5.3	9.7	9 J	4	10.5 J
BARIUM	NA	NA	49.5 J	60.6	57.4 J
BERYLLIUM	1 J	2.2 J	2.2 J	0.46	2.2 J
CADMIUM	3.5 K	5.9 K	5.9 J	3.5	4.7 J
CHROMIUM	58.1	106	124 J	75	120 J
COBALT	NA	NA	18.8 J	4.4	17.8 J
COPPER	64.3	140	116 J	19.1	124 J
HEXAVALENT CHROMIUM	0.74	1.4 U	8.2 J	0.53 J	2 UJ
IRON	NA	NA	NA	NA	NA
LEAD	59.6	115	127 J	42.2	123 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.21	0.35	0.48 J	0.34 L	0.44 J
MOLYBDENUM	NA	NA	2 J	1.3	2.3 J
NICKEL	16.5	35.6	42.5 J	9.9	39.6 J
SELENIUM	1.4	2.9	0.95 UJ	0.37 UL	1.12 UJ
SILVER	2.9	2	2.3 J	14.9	1.8 J
THALLIUM	0.44 U	0.77 U	1.63 UJ	0.64 U	1.91 UJ
VANADIUM	NA	NA	55 J	14.9	57.8 J
ZINC	199	423	464 J	132	405 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	56	30	26	77	25
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-16	SD-17	SD-18	SD-19	SD-20
SAMPLE ID	SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS	SD-20-SS
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1,1-TRICHLOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1,2,2-TETRACHLOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1-DICHLOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1-DICHLOROETHENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,1-DICHLOROPROPENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2,3-TRICHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2,3-TRICHLOROPROPANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2,3-TRIMETHYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2,4-TRICHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 B
1,2,4-TRIMETHYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2-DIBROMO-3-CHLOROPROPANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2-DIBROMOETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2-DICHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2-DICHLOROETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,2-DICHLOROPROPANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,3-DICHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,3-DICHLOROPROPANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
1,4-DICHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	2 J
2,2-DICHLOROPROPANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
2-BUTANONE	100 UR	100 UR	110 UR	23 J	110 UR
2-CHLOROETHYL VINYL ETHER	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
2-CHLOROTOLUENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
2-HEXANONE	100 UJ	100 UJ	110 UJ	81 UJ	110 UJ
4-CHLOROTOLUENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
4-ISOPROPYLTOLUENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
4-METHYL-2-PENTANONE	100 UJ	100 UJ	110 UJ	81 UJ	110 UJ
ACETONE	100 B	100 B	110 B	81 B	230 B
BENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
BROMOBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
BROMOCHLOROMETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
BROMODICHLOROMETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
BROMOFORM	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
BROMOMETHANE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
CARBON DISULFIDE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CARBON TETRACHLORIDE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CHLOROBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CHLORODIBROMOMETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CHLOROETHANE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
CHLOROFORM	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CHLOROMETHANE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
CIS-1,2-DICHLOROETHENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CIS-1,3-DICHLOROPROPENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
DICHLORODIFLUOROMETHANE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
DIISOPROPYL ETHER	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
ETHYL TERT-BUTYL ETHER	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
ETHYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ

LOCATION	SD-16	SD-17	SD-18	SD-19	SD-20
SAMPLE ID	SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS	SD-20-SS
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
ISOPROPYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
M+P-XYLENES	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	9 J	8 J	9 J	32 UJ	6 J
METHYLENE CHLORIDE	20 B	21 B	22 B	16 B	22 UJ
NAPHTHALENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
N-BUTYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
N-PROPYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
O-XYLENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
SEC-BUTYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
STYRENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TERT-AMYL METHYL ETHER	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TERT-BUTYLBENZENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TERTIARY-BUTYL ALCOHOL	40 UR	41 UR	44 UR	32 UR	45 UR
TETRACHLOROETHENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TOLUENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TOTAL 1,2-DICHLOROETHENE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
TOTAL XYLENES	60 UJ	62 UJ	66 UJ	48 UJ	68 UJ
TRANS-1,2-DICHLOROETHENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TRANS-1,3-DICHLOROPROPENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TRICHLOROETHENE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
TRICHLOROFLUOROMETHANE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
VINYL ACETATE	20 UJ	21 UJ	22 UJ	16 UJ	22 UJ
VINYL CHLORIDE	40 UJ	41 UJ	44 UJ	32 UJ	45 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
1,2-DICHLOROBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
1,4-DICHLOROBENZENE	240 J	1300 UJ	1500 UJ	140 J	1500 UJ
1,4-DIOXANE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
1-METHYLNAPHTHALENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,4,5-TRICHLOROPHENOL	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
2,4,6-TRICHLOROPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,4-DICHLOROPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,4-DIMETHYLPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,4-DINITROPHENOL	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
2,4-DINITROTOLUENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2,6-DINITROTOLUENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2-CHLORONAPHTHALENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2-CHLOROPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2-METHYLNAPHTHALENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2-METHYLPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
2-NITROANILINE	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
2-NITROPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
3&4-METHYLPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
3,3'-DICHLOROBENZIDINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
3-NITROANILINE	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
4,6-DINITRO-2-METHYLPHENOL	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
4-BROMOPHENYL PHENYL ETHER	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
4-CHLORO-3-METHYLPHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
4-CHLOROANILINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ

LOCATION	SD-16	SD-17	SD-18	SD-19	SD-20
SAMPLE ID	SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS	SD-20-SS
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
4-NITROPHENOL	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
ACENAPHTHENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
ACENAPHTHYLENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
ANILINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
ANTHRACENE	1400 UJ	1300 UJ	1500 UJ	210 J	1500 UJ
AZOBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	1446	1532	1501	1794	1358
BAP EQUIVALENT-POSITIVE RESULTS	676	817	676	1244	533
BENZIDINE	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
BENZO(A)ANTHRACENE	490 J	510 J	380 J	770 J	360 J
BENZO(A)PYRENE	540 J	650 J	540 J	960 J	420 J
BENZO(B)FLUORANTHENE	810 J	1100 J	930 J	1400 J	740 J
BENZO(G,H,I)PERYLENE	1400 UJ	1300 UJ	1500 UJ	460 J	1500 UJ
BENZO(K)FLUORANTHENE	480 J	480 J	430 J	670 J	290 J
BENZOIC ACID	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
BENZYL ALCOHOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
BIS(2-CHLOROETHOXY)METHANE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
BIS(2-CHLOROETHYL)ETHER	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	520 J	330 J	550 J	960 J	1500 UJ
BUTYL BENZYL PHTHALATE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
CARBAZOLE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
CHRYSENE	720 J	770 J	600 J	960 J	490 J
DIBENZO(A,H)ANTHRACENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
DIBENZOFURAN	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
DIETHYL PHTHALATE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
DIMETHYL PHTHALATE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
DI-N-BUTYL PHTHALATE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
DI-N-OCTYL PHTHALATE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
FLUORANTHENE	940 J	1200 J	980 J	1500 J	920 J
FLUORENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
HEXACHLOROBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
HEXACHLOROBUTADIENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
HEXACHLOROCYCLOPENTADIENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
HEXACHLOROETHANE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
INDENO(1,2,3-CD)PYRENE	1400 UJ	1300 UJ	1500 UJ	590 J	1500 UJ
ISOPHORONE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
NAPHTHALENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
NITROBENZENE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
N-NITROSODIMETHYLAMINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
N-NITROSO-DI-N-PROPYLAMINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
N-NITROSODIPHENYLAMINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
PENTACHLOROPHENOL	3400 UJ	3300 UJ	3800 UJ	2700 UJ	3700 UJ
PHENANTHRENE	440 J	580 J	370 J	770 J	350 J
PHENOL	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
PYRENE	1500 J	1600 J	1200 J	2200 J	820 J
PYRIDINE	1400 UJ	1300 UJ	1500 UJ	1100 UJ	1500 UJ
TOTAL PAHS	5920	6890	5430	10490	4390

LOCATION	SD-16	SD-17	SD-18	SD-19	SD-20
SAMPLE ID	SD-16-SS	SD-17-SS	SD-18-SS	SD-19-SS	SD-20-SS
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1221	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1232	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1242	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1248	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1254	71 UJ	69 UJ	78 UJ	57 UJ	77 UJ
AROCLOR-1260	1400 J	1100 J	780 J	2800 J	1100 J
TOTAL AROCLOR	1400	1100	780	2800	1100
METALS (MG/KG)					
ANTIMONY	1.33 UJ	1.5 J	1.7 J	1.07 UJ	1.4 J
ARSENIC	9.6 J	11.9 J	11.3 J	8.2 J	10.2 J
BARIUM	45.2 J	52.8 J	51.9 J	45.8 J	52 J
BERYLLIUM	2.2 J	2.5 J	2.4 J	2.2 J	2.4 J
CADMIUM	5.1 J	4.6 J	4.6 J	7.2 J	5.4 J
CHROMIUM	127 J	125 J	132 J	135 J	140 J
COBALT	17.9 J	19.3 J	19.6 J	19.3 J	19.6 J
COPPER	116 J	127 J	131 J	97.3 J	126 J
HEXAVALENT CHROMIUM	2.1 UJ	2 UJ	2.3 UJ	1.6 UJ	2.2 UJ
IRON	NA	NA	NA	NA	NA
LEAD	109 J	114 J	115 J	125 J	115 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.4 J	0.39 J	0.4 J	0.43 J	0.46 J
MOLYBDENUM	1.2 J	1.6 J	1.2 J	1.3 J	1.3 J
NICKEL	39.3 J	42.4 J	40.9 J	42.4 J	41 J
SELENIUM	1.16 UJ	2.3 J	1.24 UJ	0.93 UJ	1.13 UJ
SILVER	1.9 J	1.7 J	1.5 J	2.3 J	1.7 J
THALLIUM	2.1 J	2.23 UJ	2.11 UJ	1.59 UJ	1.94 UJ
VANADIUM	52.2 J	61.4 J	57.4 J	56.3 J	55.6 J
ZINC	373 J	384 J	372 J	427 J	386 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	24	25	22	30	22
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	47000 J	NA	42000 J	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-21	SD-22	SD-23	SD-24	SD-25
SAMPLE ID	SD-21-SS	SD-22-SS	SD-23-SS	SD-24-SS	SD-25-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1,1-TRICHLOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1,2,2-TETRACHLOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1-DICHLOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1-DICHLOROETHENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,1-DICHLOROPROPENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2,3-TRICHLOROBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2,3-TRICHLOROPROPANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2,3-TRIMETHYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2,4-TRICHLOROBENZENE	20 B	22 B	22 B	7 U	12 UJ
1,2,4-TRIMETHYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2-DIBROMO-3-CHLOROPROPANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2-DIBROMOETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2-DICHLOROBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2-DICHLOROETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,2-DICHLOROPROPANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,3-DICHLOROBENZENE	20 UJ	2 J	22 UJ	7 U	12 UJ
1,3-DICHLOROPROPANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
1,4-DICHLOROBENZENE	1 J	3 J	1 J	7 U	12 UJ
2,2-DICHLOROPROPANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
2-BUTANONE	99 UR	110 UR	110 UR	36 UR	58 UR
2-CHLOROETHYL VINYL ETHER	20 UJ	22 UJ	22 UJ	7 U	12 UJ
2-CHLOROTOLUENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
2-HEXANONE	99 UJ	110 UJ	110 UJ	36 U	58 UJ
4-CHLOROTOLUENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
4-ISOPROPYLTOLUENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
4-METHYL-2-PENTANONE	99 UJ	110 UJ	110 UJ	36 U	58 UJ
ACETONE	200 B	240 B	140 B	13 B	47 B
BENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
BROMOBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
BROMOCHLOROMETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
BROMODICHLOROMETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
BROMOFORM	20 UJ	22 UJ	22 UJ	7 U	12 UJ
BROMOMETHANE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
CARBON DISULFIDE	20 UJ	22 UJ	22 UJ	7 U	12 UR
CARBON TETRACHLORIDE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
CHLOROBENZENE	20 UJ	3 J	22 UJ	7 U	12 UJ
CHLORODIBROMOMETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
CHLOROETHANE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
CHLOROFORM	20 UJ	22 UJ	22 UJ	7 U	12 UJ
CHLOROMETHANE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
CIS-1,2-DICHLOROETHENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
CIS-1,3-DICHLOROPROPENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
DICHLORODIFLUOROMETHANE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
DIISOPROPYL ETHER	20 UJ	22 UJ	22 UJ	7 U	12 UJ
ETHYL TERT-BUTYL ETHER	20 UJ	22 UJ	22 UJ	7 U	12 UJ
ETHYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ

LOCATION	SD-21	SD-22	SD-23	SD-24	SD-25
SAMPLE ID	SD-21-SS	SD-22-SS	SD-23-SS	SD-24-SS	SD-25-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
ISOPROPYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
M+P-XYLENES	40 UJ	44 UJ	43 UJ	15 U	23 UJ
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	8 J	5 J	9 J	15 U	3 J
METHYLENE CHLORIDE	20 UJ	22 UJ	22 UJ	6 B	9 B
NAPHTHALENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
N-BUTYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
N-PROPYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
O-XYLENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
SEC-BUTYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
STYRENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TERT-AMYL METHYL ETHER	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TERT-BUTYLBENZENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TERTIARY-BUTYL ALCOHOL	40 UR	44 UR	43 UR	15 UR	23 UR
TETRACHLOROETHENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TOLUENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TOTAL 1,2-DICHLOROETHENE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
TOTAL XYLENES	59 UJ	65 UJ	65 UJ	22 U	35 UJ
TRANS-1,2-DICHLOROETHENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TRANS-1,3-DICHLOROPROPENE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
TRICHLOROETHENE	20 UJ	22 UJ	22 UJ	7 U	12 UR
TRICHLOROFLUOROMETHANE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
VINYL ACETATE	20 UJ	22 UJ	22 UJ	7 U	12 UJ
VINYL CHLORIDE	40 UJ	44 UJ	43 UJ	15 U	23 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
1,2-DICHLOROBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
1,4-DICHLOROBENZENE	1300 UJ	450 J	1400 UJ	480 U	96 J
1,4-DIOXANE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
1-METHYLNAPHTHALENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,2'-OXYBIS(1-CHLOROPROPANE)	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,4,5-TRICHLOROPHENOL	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
2,4,6-TRICHLOROPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,4-DICHLOROPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,4-DIMETHYLPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,4-DINITROPHENOL	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
2,4-DINITROTOLUENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2,6-DINITROTOLUENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2-CHLORONAPHTHALENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2-CHLOROPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2-METHYLNAPHTHALENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2-METHYLPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
2-NITROANILINE	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
2-NITROPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
3&4-METHYLPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
3,3'-DICHLOROBENZIDINE	1300 UJ	1400 UJ	1400 UJ	480 UJ	780 U
3-NITROANILINE	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
4,6-DINITRO-2-METHYLPHENOL	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
4-BROMOPHENYL PHENYL ETHER	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
4-CHLORO-3-METHYLPHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
4-CHLOROANILINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U

LOCATION	SD-21	SD-22	SD-23	SD-24	SD-25
SAMPLE ID	SD-21-SS	SD-22-SS	SD-23-SS	SD-24-SS	SD-25-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
4-NITROPHENOL	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
ACENAPHTHENE	1300 UJ	1400 UJ	1400 UJ	480 U	160 J
ACENAPHTHYLENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
ANILINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
ANTHRACENE	1300 UJ	1400 UJ	1400 UJ	480 U	150 J
AZOBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
BAP EQUIVALENT-1/2 NON-DETECTS	1354	1496	1371	711	886
BAP EQUIVALENT-POSITIVE RESULTS	639	726	601	471	492
BENZIDINE	3200 UJ	3600 UJ	3600 UJ	1200 UJ	1900 U
BENZO(A)ANTHRACENE	350 J	400 J	350 J	370 J	330 J
BENZO(A)PYRENE	520 J	580 J	480 J	350 J	370 J
BENZO(B)FLUORANTHENE	800 J	1000 J	830 J	570 J	570 J
BENZO(G,H,I)PERYLENE	1300 UJ	1400 UJ	1400 UJ	230 J	780 UJ
BENZO(K)FLUORANTHENE	350 J	520 J	280 J	210 J	780 UJ
BENZOIC ACID	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
BENZYL ALCOHOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 UJ
BIS(2-CHLOROETHOXY)METHANE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
BIS(2-CHLOROETHYL)ETHER	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
BIS(2-ETHYLHEXYL)PHTHALATE	360 J	440 J	360 J	450 J	300 J
BUTYL BENZYL PHTHALATE	1300 UJ	1400 UJ	1400 UJ	120 J	780 U
CARBAZOLE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
CHRYSENE	570 J	690 J	530 J	480 J	490 J
DIBENZO(A,H)ANTHRACENE	1300 UJ	1400 UJ	1400 UJ	480 UJ	780 UJ
DIBENZOFURAN	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
DIETHYL PHTHALATE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
DIMETHYL PHTHALATE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
DI-N-BUTYL PHTHALATE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
DI-N-OCTYL PHTHALATE	1300 UJ	1400 UJ	1400 UJ	480 UJ	780 UJ
FLUORANTHENE	990 J	1000 J	860 J	440 J	500 J
FLUORENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
HEXACHLOROBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
HEXACHLOROBUTADIENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
HEXACHLOROCYCLOPENTADIENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 UR
HEXACHLOROETHANE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
INDENO(1,2,3-CD)PYRENE	1300 UJ	1400 UJ	1400 UJ	240 J	320 J
ISOPHORONE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
NAPHTHALENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
NITROBENZENE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
N-NITROSODIMETHYLAMINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
N-NITROSO-DI-N-PROPYLAMINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
N-NITROSODIPHENYLAMINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
PENTACHLOROPHENOL	3200 UJ	3600 UJ	3600 UJ	1200 U	1900 U
PHENANTHRENE	350 J	460 J	300 J	240 J	240 J
PHENOL	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
PYRENE	950 J	1300 J	1100 J	990 J	860
PYRIDINE	1300 UJ	1400 UJ	1400 UJ	480 U	780 U
TOTAL PAHS	4880	5950	4730	4120	3990

LOCATION	SD-21	SD-22	SD-23	SD-24	SD-25
SAMPLE ID	SD-21-SS	SD-22-SS	SD-23-SS	SD-24-SS	SD-25-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1221	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1232	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1242	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1248	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1254	67 UJ	74 UJ	74 UJ	25 U	40 U
AROCLOR-1260	560 J	2000 J	750 J	190 J	1300 J
TOTAL AROCLOR	560	2000	750	190	1300
METALS (MG/KG)					
ANTIMONY	1.35 UJ	1.35 UJ	1.25 UJ	0.43 UL	0.71 UL
ARSENIC	9.4 J	11.2 J	11.1 J	3.8	5.1
BARIUM	38.2 J	61.1 J	52 J	17.1	21.5
BERYLLIUM	1.9 J	2.5 J	2.3 J	0.84	0.98
CADMIUM	3.3 J	5.2 J	5.3 J	1.6	4.3
CHROMIUM	98.4 J	156 J	154 J	33.4 K	63.7 K
COBALT	15.2 J	22.2 J	19.9 J	9.8	9.8
COPPER	104 J	151 J	127 J	27.2 J	61.3 J
HEXAVALENT CHROMIUM	2 UJ	2.2 UJ	2.2 UJ	0.74 UL	1.1 UL
IRON	NA	NA	NA	NA	NA
LEAD	86 J	127 J	119 J	29.4	49.6
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.33 J	0.4 J	0.4 J	0.1 K	0.23 K
MOLYBDENUM	1 J	1.3 J	1.4 J	0.56	0.34 U
NICKEL	31.5 J	46.1 J	41.3 J	15.6	17.1
SELENIUM	1.2 J	1.18 UJ	1.09 UJ	0.38 U	0.62 B
SILVER	0.97 J	1.8 J	1.9 J	0.11 UL	0.74 L
THALLIUM	2.01 UJ	2.01 UJ	1.87 UJ	0.64 U	1.05 U
VANADIUM	44 J	61.5 J	55.9 J	20.8	24.2
ZINC	281 J	404 J	362 J	134	180
METALS (UG/KG)					
DIBUTYLTIN	NA	5.5 J	NA	NA	NA
MONOBUTYLTIN	NA	6.8 UJ	NA	NA	NA
TETRABUTYLTIN	NA	6.8 UJ	NA	NA	NA
TRIBUTYLTIN	NA	6 UJ	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	25	23	23	68	42
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	55000 J	NA	28000 K
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-26	SD-27	SD-28	SD-29	SD-30
SAMPLE ID	SD-26-SS	SD-27-SS	SD-28-SS	SD-29-SS	SD-30-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,1,1-TRICHLOROETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,1,2,2-TETRACHLOROETHANE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,1-DICHLOROETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,1-DICHLOROETHENE	23 UJ	14 U	17 UL	15 U	19 UJ
1,1-DICHLOROPROPENE	23 UJ	14 U	17 UL	15 U	19 UJ
1,2,3-TRICHLOROBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2,3-TRICHLOROPROPANE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2,3-TRIMETHYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2,4-TRICHLOROBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2,4-TRIMETHYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2-DIBROMO-3-CHLOROPROPANE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2-DIBROMOETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,2-DICHLOROBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,2-DICHLOROETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,2-DICHLOROPROPANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,3-DICHLOROBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
1,3-DICHLOROPROPANE	23 UJ	14 U	17 UL	15 U	19 UJ
1,4-DICHLOROBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
2,2-DICHLOROPROPANE	23 UJ	14 U	17 UL	15 U	19 UJ
2-BUTANONE	110 UR	71 UR	85 UR	17 J	93 UJ
2-CHLOROETHYL VINYL ETHER	23 UJ	14 U	17 UL	15 U	19 UJ
2-CHLOROTOLUENE	23 UJ	14 U	17 UL	15 UL	19 UJ
2-HEXANONE	110 UJ	71 U	85 UL	74 U	93 UJ
4-CHLOROTOLUENE	23 UJ	14 U	17 UL	15 UL	19 UJ
4-ISOPROPYLTOLUENE	23 UJ	14 U	17 UL	15 UL	19 UJ
4-METHYL-2-PENTANONE	110 UJ	71 U	85 UL	74 U	93 UJ
ACETONE	65 B	80 B	85 B	88 B	140 B
BENZENE	23 UJ	14 U	17 UL	15 U	19 UJ
BROMOBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
BROMOCHLOROMETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
BROMODICHLOROMETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
BROMOFORM	23 UJ	14 U	17 UL	15 U	19 UJ
BROMOMETHANE	46 UJ	28 U	34 UL	30 U	37 UJ
CARBON DISULFIDE	23 UJ	14 U	17 UL	12 J	19 UJ
CARBON TETRACHLORIDE	23 UJ	14 U	17 UL	15 U	19 UJ
CHLOROBENZENE	23 UJ	14 U	17 UL	15 U	19 UJ
CHLORODIBROMOMETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
CHLOROETHANE	46 UJ	28 U	34 UL	30 U	37 UJ
CHLOROFORM	23 UJ	14 U	17 UL	15 U	19 UJ
CHLOROMETHANE	46 UJ	28 U	34 UL	30 U	37 UJ
CIS-1,2-DICHLOROETHENE	23 UJ	14 U	17 UL	15 U	19 UJ
CIS-1,3-DICHLOROPROPENE	23 UJ	14 U	17 UL	15 U	19 UJ
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	23 UJ	14 U	17 UL	15 U	19 UJ
DICHLORODIFLUOROMETHANE	46 UJ	28 U	34 UL	30 U	37 UJ
DIISOPROPYL ETHER	23 UJ	14 U	17 UL	15 U	19 UJ
ETHYL TERT-BUTYL ETHER	23 UJ	14 U	17 UL	15 U	19 UJ
ETHYLBENZENE	23 UJ	14 U	17 UL	15 U	19 UJ

LOCATION	SD-26	SD-27	SD-28	SD-29	SD-30
SAMPLE ID	SD-26-SS	SD-27-SS	SD-28-SS	SD-29-SS	SD-30-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	23 UJ	14 U	17 UL	15 UL	19 UJ
ISOPROPYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
M+P-XYLENES	46 UJ	28 U	34 UL	30 U	37 UJ
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	8 J	28 U	3 J	5 J	3 J
METHYLENE CHLORIDE	23 B	10 B	12 B	10 B	19 UJ
NAPHTHALENE	23 UJ	14 U	17 UL	15 UL	19 UJ
N-BUTYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
N-PROPYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
O-XYLENE	23 UJ	14 U	17 UL	15 U	19 UJ
SEC-BUTYLBENZENE	23 UJ	14 U	17 UL	15 UL	19 UJ
STYRENE	23 UJ	14 U	17 UL	15 U	19 UJ
TERT-AMYL METHYL ETHER	23 UJ	14 U	17 UL	15 U	19 UJ
TERT-BUTYLBENZENE	23 UJ	14 U	17 UL	15 U	19 UJ
TERTIARY-BUTYL ALCOHOL	46 UR	28 UR	34 UR	30 UR	37 UR
TETRACHLOROETHENE	23 UJ	14 U	17 UL	15 U	19 UJ
TOLUENE	23 UJ	10 J	17 UL	15 U	19 UJ
TOTAL 1,2-DICHLOROETHENE	46 UJ	28 U	34 UL	30 U	37 UJ
TOTAL XYLENES	68 UJ	42 U	51 UL	45 U	56 UJ
TRANS-1,2-DICHLOROETHENE	23 UJ	14 U	17 UL	15 U	19 UJ
TRANS-1,3-DICHLOROPROPENE	23 UJ	14 U	17 UL	15 U	19 UJ
TRICHLOROETHENE	23 UJ	14 U	17 UL	15 U	19 UJ
TRICHLOROFLUOROMETHANE	46 UJ	28 U	34 UL	30 U	37 UJ
VINYL ACETATE	23 UJ	14 U	17 UL	15 U	19 UJ
VINYL CHLORIDE	46 UJ	28 U	34 UL	30 U	37 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
1,2-DICHLOROBENZENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	1500 UJ	420 J	1100 UJ	980 U	1300 UJ
1,4-DICHLOROBENZENE	160 J	850 J	1100 UJ	76 J	120 B
1,4-DIOXANE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
1-METHYLNAPHTHALENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,4,5-TRICHLOROPHENOL	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
2,4,6-TRICHLOROPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,4-DICHLOROPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,4-DIMETHYLPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,4-DINITROPHENOL	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
2,4-DINITROTOLUENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2,6-DINITROTOLUENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2-CHLORONAPHTHALENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2-CHLOROPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2-METHYLNAPHTHALENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2-METHYLPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
2-NITROANILINE	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
2-NITROPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
3&4-METHYLPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
3,3'-DICHLOROBENZIDINE	1500 UJ	940 U	1100 UJ	980 UJ	1300 UJ
3-NITROANILINE	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
4,6-DINITRO-2-METHYLPHENOL	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
4-BROMOPHENYL PHENYL ETHER	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
4-CHLORO-3-METHYLPHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
4-CHLOROANILINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ

LOCATION	SD-26	SD-27	SD-28	SD-29	SD-30
SAMPLE ID	SD-26-SS	SD-27-SS	SD-28-SS	SD-29-SS	SD-30-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
4-NITROPHENOL	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
ACENAPHTHENE	1500 UJ	250 J	790 J	980 U	260 B
ACENAPHTHYLENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
ANILINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
ANTHRACENE	1500 UJ	300 J	1700 J	980 U	1300 UJ
AZOBENZENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	1390	1776	6472	1121	1202
BAP EQUIVALENT-POSITIVE RESULTS	565	1306	6472	582	481
BENZIDINE	3700 UJ	2300 U	2800 UJ	2400 UJ	3300 UJ
BENZO(A)ANTHRACENE	330 J	980	5200 J	420 J	300 J
BENZO(A)PYRENE	450 J	990 J	4400 J	470 J	380 J
BENZO(B)FLUORANTHENE	780 J	1400 J	5800 J	660 J	700 J
BENZO(G,H,I)PERYLENE	1500 UJ	730 J	3100 J	980 UJ	1300 UJ
BENZO(K)FLUORANTHENE	310 J	240 J	2700 J	310 J	1300 UJ
BENZOIC ACID	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
BENZYL ALCOHOL	1500 UJ	940 UJ	1100 UJ	980 U	1300 UJ
BIS(2-CHLOROETHOXY)METHANE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
BIS(2-CHLOROETHYL)ETHER	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	1500 J	630 J	510 J	390 J	340 J
BUTYL BENZYL PHTHALATE	1500 UJ	940 U	1100 UJ	980 UJ	1300 UJ
CARBAZOLE	1500 UJ	180 J	990 J	980 U	1300 UJ
CHRYSENE	530 J	1400	5400 J	560 J	540 J
DIBENZO(A,H)ANTHRACENE	1500 UJ	940 UJ	600 J	980 UJ	1300 UJ
DIBENZOFURAN	1500 UJ	940 U	340 J	980 U	1300 UJ
DIETHYL PHTHALATE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
DIMETHYL PHTHALATE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
DI-N-BUTYL PHTHALATE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
DI-N-OCTYL PHTHALATE	1500 UJ	940 UJ	1100 UJ	980 UJ	1300 UJ
FLUORANTHENE	780 J	1500	9800 J	840 J	540 J
FLUORENE	1500 UJ	180 J	680 J	980 U	1300 UJ
HEXACHLOROBENZENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
HEXACHLOROBUTADIENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
HEXACHLOROCYCLOPENTADIENE	1500 UJ	940 UR	1100 UJ	980 U	1300 UJ
HEXACHLOROETHANE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
INDENO(1,2,3-CD)PYRENE	1500 UJ	740 J	3400 J	980 UJ	1300 UJ
ISOPHORONE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
NAPHTHALENE	1500 UJ	940 U	290 J	980 U	1300 UJ
NITROBENZENE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
N-NITROSODIMETHYLAMINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
N-NITROSO-DI-N-PROPYLAMINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
N-NITROSODIPHENYLAMINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
PENTACHLOROPHENOL	3700 UJ	2300 U	2800 UJ	2400 U	3300 UJ
PHENANTHRENE	360 J	850 J	6800 J	360 J	1300 UJ
PHENOL	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
PYRENE	1200 J	2500	13000 J	1200 J	1000 J
PYRIDINE	1500 UJ	940 U	1100 UJ	980 U	1300 UJ
TOTAL PAHS	4740	12060	63660	4820	3460

LOCATION	SD-26	SD-27	SD-28	SD-29	SD-30
SAMPLE ID	SD-26-SS	SD-27-SS	SD-28-SS	SD-29-SS	SD-30-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1221	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1232	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1242	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1248	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1254	76 UJ	2400 UJ	59 UJ	51 U	68 UJ
AROCLOR-1260	1500 J	20000 J	790 J	2500	1400 J
TOTAL AROCLOR	1500	20000	790	2500	1400
METALS (MG/KG)					
ANTIMONY	1.5 J	1.2 L	1.23 UJ	1.09 UL	1.24 UJ
ARSENIC	11 J	7.4	8.4 J	8.3	10.1 J
BARIUM	59.2 J	61.5	66.8 J	63.3	55.8 J
BERYLLIUM	2.1 J	2.3	2.2 J	2.3	1.9 J
CADMIUM	5.6 J	22.7	39.4 J	10.3	3.9 J
CHROMIUM	170 J	454 K	680 J	253 K	140 J
COBALT	21 J	22.6	20.9 J	22.8	18.6 J
COPPER	141 J	98.8 J	112 J	93.5 J	136 J
HEXAVALENT CHROMIUM	2.2 UJ	1.4 UL	1.7 UJ	1.5 UL	2 UJ
IRON	NA	NA	NA	NA	NA
LEAD	121 J	186	235 J	198	109 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.52 J	0.68 K	0.98 J	0.84 K	3.5 J
MOLYBDENUM	1 J	1	1.9 J	1.4	0.97 J
NICKEL	43.2 J	52.8	62.8 J	52.5	37.3 J
SELENIUM	1.4 B	1.2 B	1.2 B	1.4 B	1.9 B
SILVER	1.6 J	8.9	28.6 J	3.1 L	1.6 J
THALLIUM	2.21 UJ	1.8 B	1.83 UJ	1.63 U	1.85 UJ
VANADIUM	54.9 J	64.9	120 J	69.7	53.3 J
ZINC	379 J	456	636 J	414	338 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	4.5 UJ	9.9	NA
MONOBUTYLTIN	NA	NA	5.9 UJ	5.3 U	NA
TETRABUTYLTIN	NA	NA	5.9 UJ	5.3 U	NA
TRIBUTYLTIN	NA	NA	5.2 UJ	4.7 U	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	22	35	29	34	25
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	47000 K	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-31	SD-32	SD-33	SD-34	SD-35
SAMPLE ID	SD-31-SS	SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1,1-TRICHLOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1,2,2-TETRACHLOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1-DICHLOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1-DICHLOROETHENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,1-DICHLOROPROPENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2,3-TRICHLOROBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2,3-TRICHLOROPROPANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2,3-TRIMETHYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2,4-TRICHLOROBENZENE	8 B	24 UJ	20 UJ	13 UJ	19 UJ
1,2,4-TRIMETHYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2-DIBROMO-3-CHLOROPROPANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2-DIBROMOETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2-DICHLOROBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2-DICHLOROETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,2-DICHLOROPROPANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,3-DICHLOROBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,3-DICHLOROPROPANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
1,4-DICHLOROBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
2,2-DICHLOROPROPANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
2-BUTANONE	66 U	120 UJ	100 UR	64 UJ	96 UR
2-CHLOROETHYL VINYL ETHER	13 U	24 UJ	20 UJ	13 UJ	19 UJ
2-CHLOROTOLUENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
2-HEXANONE	66 U	120 UJ	100 UJ	64 UJ	96 UJ
4-CHLOROTOLUENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
4-ISOPROPYLTOLUENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
4-METHYL-2-PENTANONE	66 U	120 UJ	100 UJ	64 UJ	96 UJ
ACETONE	61 B	110 B	36 B	77 B	40 B
BENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
BROMOBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
BROMOCHLOROMETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
BROMODICHLOROMETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
BROMOFORM	13 U	24 UJ	20 UJ	13 UJ	19 UJ
BROMOMETHANE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
CARBON DISULFIDE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CARBON TETRACHLORIDE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CHLOROBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CHLORODIBROMOMETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CHLOROETHANE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
CHLOROFORM	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CHLOROMETHANE	26 U	49 UJ	41 UJ	25 UJ	13 J
CIS-1,2-DICHLOROETHENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CIS-1,3-DICHLOROPROPENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
DICHLORODIFLUOROMETHANE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
DIISOPROPYL ETHER	13 U	24 UJ	20 UJ	13 UJ	19 UJ
ETHYL TERT-BUTYL ETHER	13 U	24 UJ	20 UJ	13 UJ	19 UJ
ETHYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ

LOCATION	SD-31	SD-32	SD-33	SD-34	SD-35
SAMPLE ID	SD-31-SS	SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
ISOPROPYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
M+P-XYLENES	26 U	49 UJ	41 UJ	25 UJ	38 UJ
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	3 J	9 J	6 J	3 J	6 J
METHYLENE CHLORIDE	13 U	24 UJ	14 B	13 UJ	11 B
NAPHTHALENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
N-BUTYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
N-PROPYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
O-XYLENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
SEC-BUTYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
STYRENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TERT-AMYL METHYL ETHER	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TERT-BUTYLBENZENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TERTIARY-BUTYL ALCOHOL	26 UR	49 UR	41 UR	25 UR	38 UR
TETRACHLOROETHENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TOLUENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TOTAL 1,2-DICHLOROETHENE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
TOTAL XYLENES	39 U	74 UJ	61 UJ	38 UJ	58 UJ
TRANS-1,2-DICHLOROETHENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TRANS-1,3-DICHLOROPROPENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TRICHLOROETHENE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
TRICHLOROFLUOROMETHANE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
VINYL ACETATE	13 U	24 UJ	20 UJ	13 UJ	19 UJ
VINYL CHLORIDE	26 U	49 UJ	41 UJ	25 UJ	38 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
1,2-DICHLOROBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
1,4-DICHLOROBENZENE	860 U	1600 UJ	1300 UJ	74 B	110 B
1,4-DIOXANE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
1-METHYLNAPHTHALENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,4,5-TRICHLOROPHENOL	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
2,4,6-TRICHLOROPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,4-DICHLOROPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,4-DIMETHYLPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,4-DINITROPHENOL	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
2,4-DINITROTOLUENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2,6-DINITROTOLUENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2-CHLORONAPHTHALENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2-CHLOROPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2-METHYLNAPHTHALENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2-METHYLPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
2-NITROANILINE	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
2-NITROPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
3&4-METHYLPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
3,3'-DICHLOROBENZIDINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
3-NITROANILINE	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
4,6-DINITRO-2-METHYLPHENOL	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
4-BROMOPHENYL PHENYL ETHER	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
4-CHLORO-3-METHYLPHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
4-CHLOROANILINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ

LOCATION	SD-31	SD-32	SD-33	SD-34	SD-35
SAMPLE ID	SD-31-SS	SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
4-NITROPHENOL	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
ACENAPHTHENE	860 U	1600 UJ	1300 UJ	170 B	1200 UJ
ACENAPHTHYLENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
ANILINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
ANTHRACENE	860 U	1600 UJ	1300 UJ	170 J	1200 UJ
AZOBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	860 U	1249	1466	895	927
BAP EQUIVALENT-POSITIVE RESULTS	860 U	280	29	428	200
BENZIDINE	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
BENZO(A)ANTHRACENE	860 U	1600 UJ	1300 UJ	260 J	1200 UJ
BENZO(A)PYRENE	860 U	240 J	1300 UJ	350 J	170 J
BENZO(B)FLUORANTHENE	860 U	400 J	290 J	520 J	300 J
BENZO(G,H,I)PERYLENE	860 U	1600 UJ	1300 UJ	840 UJ	1200 UJ
BENZO(K)FLUORANTHENE	860 U	1600 UJ	1300 UJ	840 UJ	1200 UJ
BENZOIC ACID	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
BENZYL ALCOHOL	860 UJ	1600 UJ	1300 UJ	840 UJ	1200 UJ
BIS(2-CHLOROETHOXY)METHANE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
BIS(2-CHLOROETHYL)ETHER	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	860 U	2900 J	800 J	1900	1600 J
BUTYL BENZYL PHTHALATE	860 U	1600 UJ	1300 UJ	190 J	1200 UJ
CARBAZOLE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
CHRYSENE	860 U	1600 UJ	1300 UJ	410 J	1200 UJ
DIBENZO(A,H)ANTHRACENE	860 U	1600 UJ	1300 UJ	840 UJ	1200 UJ
DIBENZOFURAN	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
DIETHYL PHTHALATE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
DIMETHYL PHTHALATE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
DI-N-BUTYL PHTHALATE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
DI-N-OCTYL PHTHALATE	860 U	1600 UJ	1300 UJ	840 UJ	1200 UJ
FLUORANTHENE	860 U	470 J	340 J	430 J	310 J
FLUORENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
HEXACHLOROBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
HEXACHLOROBUTADIENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
HEXACHLOROCYCLOPENTADIENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
HEXACHLOROETHANE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
INDENO(1,2,3-CD)PYRENE	860 U	1600 UJ	1300 UJ	840 UJ	1200 UJ
ISOPHORONE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
NAPHTHALENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
NITROBENZENE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
N-NITROSODIMETHYLAMINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
N-NITROSO-DI-N-PROPYLAMINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
N-NITROSODIPHENYLAMINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
PENTACHLOROPHENOL	2200 U	4100 UJ	3300 UJ	2100 U	3100 UJ
PHENANTHRENE	860 U	1600 UJ	1300 UJ	220 J	1200 UJ
PHENOL	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
PYRENE	860 U	610 J	400 J	830 J	440 J
PYRIDINE	860 U	1600 UJ	1300 UJ	840 U	1200 UJ
TOTAL PAHS	0 U	1720	1030	3190	1220

LOCATION	SD-31	SD-32	SD-33	SD-34	SD-35
SAMPLE ID	SD-31-SS	SD-32-SS	SD-33-SS	SD-34-SS	SD-35-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1221	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1232	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1242	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1248	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1254	44 U	85 UJ	69 UJ	43 U	64 UJ
AROCLOR-1260	170	620 J	720 J	290	370 J
TOTAL AROCLOR	170	620	720	290	370
METALS (MG/KG)					
ANTIMONY	0.74 UL	1.73 UJ	1.39 UJ	0.72 UL	1.17 UJ
ARSENIC	6.2	12.1 J	10.3 J	6.7	12 J
BARIUM	37.3	72.1 J	57.7 J	36.2	64.1 J
BERYLLIUM	1.9	1.9 J	1.8 J	1.2	1.9 J
CADMIUM	0.37	3 J	3.9 J	3.7	4.2 J
CHROMIUM	46 K	152 J	154 J	105 K	172 J
COBALT	16.1	19.8 J	18.3 J	13.5	20.7 J
COPPER	24.3 J	152 J	141 J	94.5 J	154 J
HEXAVALENT CHROMIUM	1.3 UL	2.5 UJ	2 UJ	1.3 UL	1.9 UJ
IRON	NA	NA	NA	NA	NA
LEAD	34.4	117 J	114 J	78.4	127 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.19 K	0.52 J	0.49 J	0.34 K	0.51 J
MOLYBDENUM	1.2	1.5 J	1.5 J	0.89	1.2 J
NICKEL	25	41.5 J	38 J	23.9	41.6 J
SELENIUM	0.65 U	1.51 UJ	1.21 UJ	0.63 UL	1.02 UJ
SILVER	0.19 UL	1.1 J	1.2 J	0.94 L	1.6 J
THALLIUM	1.1 U	4 B	2.07 UJ	1.08 UL	1.75 UJ
VANADIUM	38.2	62.9 J	55.9 J	35	62.1 J
ZINC	105	350 J	339 J	225	360 J
METALS (UG/KG)					
DIBUTYLTIN	3.3 U	NA	NA	NA	NA
MONOBUTYLTIN	4.4 U	NA	NA	NA	NA
TETRABUTYLTIN	4.4 U	NA	NA	NA	NA
TRIBUTYLTIN	3.8 U	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	38	20	24	39	27
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	51000 J	NA	47000 J
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-36	SD-37	SD-38	SD-39	SD-40
SAMPLE ID	SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS	SD-40-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1,1-TRICHLOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1,2,2-TETRACHLOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1-DICHLOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1-DICHLOROETHENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,1-DICHLOROPROPENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2,3-TRICHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2,3-TRICHLOROPROPANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2,3-TRIMETHYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2,4-TRICHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2,4-TRIMETHYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2-DIBROMO-3-CHLOROPROPANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2-DIBROMOETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2-DICHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2-DICHLOROETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,2-DICHLOROPROPANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,3-DICHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,3-DICHLOROPROPANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
1,4-DICHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
2,2-DICHLOROPROPANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
2-BUTANONE	87 UR	100 UR	120 UR	84 UR	90 UR
2-CHLOROETHYL VINYL ETHER	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
2-CHLOROTOLUENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
2-HEXANONE	87 UJ	100 UJ	120 UJ	84 UJ	90 UJ
4-CHLOROTOLUENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
4-ISOPROPYLTOLUENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
4-METHYL-2-PENTANONE	87 UJ	100 UJ	120 UJ	84 UJ	90 UJ
ACETONE	79 J	130 J	120 UR	84 UR	150 J
BENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
BROMOBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
BROMOCHLOROMETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
BROMODICHLOROMETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
BROMOFORM	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
BROMOMETHANE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
CARBON DISULFIDE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CARBON TETRACHLORIDE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CHLOROBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CHLORODIBROMOMETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CHLOROETHANE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
CHLOROFORM	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CHLOROMETHANE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
CIS-1,2-DICHLOROETHENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CIS-1,3-DICHLOROPROPENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
DICHLORODIFLUOROMETHANE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
DIISOPROPYL ETHER	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
ETHYL TERT-BUTYL ETHER	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
ETHYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ

LOCATION	SD-36	SD-37	SD-38	SD-39	SD-40
SAMPLE ID	SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS	SD-40-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
ISOPROPYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
M+P-XYLENES	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	5 J	5 J	7 J	34 UJ	36 UJ
METHYLENE CHLORIDE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
NAPHTHALENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
N-BUTYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
N-PROPYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
O-XYLENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
SEC-BUTYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
STYRENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TERT-AMYL METHYL ETHER	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TERT-BUTYLBENZENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TERTIARY-BUTYL ALCOHOL	35 UR	42 UR	48 UR	34 UR	36 UR
TETRACHLOROETHENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TOLUENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TOTAL 1,2-DICHLOROETHENE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
TOTAL XYLENES	52 UJ	63 UJ	72 UJ	50 UJ	54 UJ
TRANS-1,2-DICHLOROETHENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TRANS-1,3-DICHLOROPROPENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TRICHLOROETHENE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
TRICHLOROFLUOROMETHANE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
VINYL ACETATE	17 UJ	21 UJ	24 UJ	17 UJ	18 UJ
VINYL CHLORIDE	35 UJ	42 UJ	48 UJ	34 UJ	36 UJ
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
1,2-DICHLOROBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
1,4-DICHLOROBENZENE	100 B	130 B	1600 UJ	1100 UJ	120 B
1,4-DIOXANE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
1-METHYLNAPHTHALENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,4,5-TRICHLOROPHENOL	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
2,4,6-TRICHLOROPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,4-DICHLOROPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,4-DIMETHYLPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,4-DINITROPHENOL	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
2,4-DINITROTOLUENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2,6-DINITROTOLUENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2-CHLORONAPHTHALENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2-CHLOROPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2-METHYLNAPHTHALENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2-METHYLPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
2-NITROANILINE	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
2-NITROPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
3&4-METHYLPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
3,3'-DICHLOROBENZIDINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
3-NITROANILINE	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
4,6-DINITRO-2-METHYLPHENOL	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
4-BROMOPHENYL PHENYL ETHER	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
4-CHLORO-3-METHYLPHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
4-CHLOROANILINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ

LOCATION	SD-36	SD-37	SD-38	SD-39	SD-40
SAMPLE ID	SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS	SD-40-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
4-NITROPHENOL	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
ACENAPHTHENE	240 B	280 B	310 B	1100 UJ	240 B
ACENAPHTHYLENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
ANILINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
ANTHRACENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
AZOBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	962	1277	1262	900	1138
BAP EQUIVALENT-POSITIVE RESULTS	236	500	294	234	472
BENZIDINE	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
BENZO(A)ANTHRACENE	1200 UJ	310 J	1600 UJ	1100 UJ	350 J
BENZO(A)PYRENE	200 J	410 J	250 J	200 J	380 J
BENZO(B)FLUORANTHENE	360 J	590 J	440 J	340 J	560 J
BENZO(G,H,I)PERYLENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BENZO(K)FLUORANTHENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BENZOIC ACID	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
BENZYL ALCOHOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BIS(2-CHLOROETHOXY)METHANE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BIS(2-CHLOROETHYL)ETHER	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
BIS(2-ETHYLHEXYL)PHTHALATE	1200 J	1500 J	1400 J	870 J	1200 J
BUTYL BENZYL PHTHALATE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
CARBAZOLE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
CHRYSENE	280 J	490 J	340 J	260 J	530 J
DIBENZO(A,H)ANTHRACENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
DIBENZOFURAN	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
DIETHYL PHTHALATE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
DIMETHYL PHTHALATE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
DI-N-BUTYL PHTHALATE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
DI-N-OCTYL PHTHALATE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
FLUORANTHENE	360 J	530 J	430 J	330 J	540 J
FLUORENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
HEXACHLOROBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
HEXACHLOROBUTADIENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
HEXACHLOROCYCLOPENTADIENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
HEXACHLOROETHANE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
INDENO(1,2,3-CD)PYRENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
ISOPHORONE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
NAPHTHALENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
NITROBENZENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
N-NITROSODIMETHYLAMINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
N-NITROSO-DI-N-PROPYLAMINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
N-NITROSODIPHENYLAMINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
PENTACHLOROPHENOL	3100 UJ	3500 UJ	4000 UJ	2700 UJ	3000 UJ
PHENANTHRENE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
PHENOL	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
PYRENE	550 J	980 J	640 J	430 J	950 J
PYRIDINE	1200 UJ	1400 UJ	1600 UJ	1100 UJ	1200 UJ
TOTAL PAHS	1750	3310	2100	1560	3310

LOCATION	SD-36	SD-37	SD-38	SD-39	SD-40
SAMPLE ID	SD-36-SS	SD-37-SS	SD-38-SS	SD-39-SS	SD-40-SS
SAMPLE DATE	20051021	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1221	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1232	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1242	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1248	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1254	64 UJ	72 UJ	82 UJ	57 UJ	61 UJ
AROCLOR-1260	430 J	240 J	210 J	190 J	360 J
TOTAL AROCLOR	430	240	210	190	360
METALS (MG/KG)					
ANTIMONY	1.25 UJ	1.41 UJ	1.26 UJ	0.86 UJ	1.21 UJ
ARSENIC	9.6 J	8.5 J	9.7 J	7.4 J	8.6 J
BARIUM	56.3 J	42.8 J	55.4 J	32.6 J	71.6 J
BERYLLIUM	1.8 J	1.5 J	1.9 J	1.2 J	2.6 J
CADMIUM	4.7 J	4.3 J	5.5 J	5.3 J	24 J
CHROMIUM	152 J	113 J	158 J	127 J	361 J
COBALT	18.9 J	15 J	18 J	13.1 J	26.6 J
COPPER	138 J	114 J	146 J	118 J	111 J
HEXAVALENT CHROMIUM	1.8 UJ	13 J	2.4 UJ	1.7 UJ	1.8 UJ
IRON	NA	NA	NA	NA	NA
LEAD	115 J	86.8 J	118 J	105 J	216 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.34 J	0.26 J	0.36 J	0.38 J	0.52 J
MOLYBDENUM	1 J	1.2 J	1.9 J	1.2 J	2.3 J
NICKEL	39.7 J	31.7 J	37.9 J	26.6 J	53.8 J
SELENIUM	1.6 J	1.23 UJ	1.1 UJ	0.75 UJ	1.05 UJ
SILVER	2.1 B	1.7 B	1.9 B	1.8 B	3.4 B
THALLIUM	1.87 UJ	2.11 UJ	1.9 B	1.28 UJ	1.8 UJ
VANADIUM	48.2 J	38.1 J	48.1 J	30.2 J	61.7 J
ZINC	327 J	270 J	333 J	260 J	548 J
METALS (UG/KG)					
DIBUTYLTIN	NA	5.6 UJ	NA	NA	11 J
MONOBUTYLTIN	NA	7.4 UJ	NA	NA	5.7 UJ
TETRABUTYLTIN	NA	7.4 UJ	NA	NA	5.7 UJ
TRIBUTYLTIN	NA	6.5 UJ	NA	NA	5 UJ
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	27	24	21	30	28
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	47000 J	46000 J
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-41	SD-42	SD-43	SD-44	SD-45
SAMPLE ID	SD-41-SS	SD-42-SS	SD-43-SS	SD-44-SS	SD-45-SS
SAMPLE DATE	20051021	20051021	20081117	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	19 UJ	13 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	19 UJ	13 U	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	19 UJ	13 UJ	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	19 UJ	13 U	NA	NA	NA
1,1-DICHLOROETHANE	19 UJ	13 U	NA	NA	NA
1,1-DICHLOROETHENE	19 UJ	13 U	NA	NA	NA
1,1-DICHLOROPROPENE	19 UJ	13 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	19 UJ	13 UJ	NA	NA	NA
1,2,3-TRICHLOROPROPANE	19 UJ	13 UJ	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	19 UJ	13 UJ	NA	NA	NA
1,2,4-TRICHLOROBENZENE	19 UJ	13 UJ	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	19 UJ	13 UJ	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	19 UJ	13 UJ	NA	NA	NA
1,2-DIBROMOETHANE	19 UJ	13 U	NA	NA	NA
1,2-DICHLOROBENZENE	19 UJ	13 UJ	NA	NA	NA
1,2-DICHLOROETHANE	19 UJ	13 U	NA	NA	NA
1,2-DICHLOROPROPANE	19 UJ	13 U	NA	NA	NA
1,3-DICHLOROBENZENE	19 UJ	13 UJ	NA	NA	NA
1,3-DICHLOROPROPANE	19 UJ	13 U	NA	NA	NA
1,4-DICHLOROBENZENE	19 UJ	13 UJ	NA	NA	NA
2,2-DICHLOROPROPANE	19 UJ	13 U	NA	NA	NA
2-BUTANONE	94 UR	63 UR	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	19 UJ	13 U	NA	NA	NA
2-CHLOROTOLUENE	19 UJ	13 U	NA	NA	NA
2-HEXANONE	94 UJ	63 U	NA	NA	NA
4-CHLOROTOLUENE	19 UJ	13 UJ	NA	NA	NA
4-ISOPROPYLTOLUENE	19 UJ	13 UJ	NA	NA	NA
4-METHYL-2-PENTANONE	94 UJ	63 U	NA	NA	NA
ACETONE	65 J	59 J	NA	NA	NA
BENZENE	19 UJ	13 U	NA	NA	NA
BROMOBENZENE	19 UJ	13 UJ	NA	NA	NA
BROMOCHLOROMETHANE	19 UJ	13 U	NA	NA	NA
BROMODICHLOROMETHANE	19 UJ	13 U	NA	NA	NA
BROMOFORM	19 UJ	13 U	NA	NA	NA
BROMOMETHANE	38 UJ	25 U	NA	NA	NA
CARBON DISULFIDE	19 UJ	13 U	NA	NA	NA
CARBON TETRACHLORIDE	19 UJ	13 U	NA	NA	NA
CHLOROBENZENE	19 UJ	13 U	NA	NA	NA
CHLORODIBROMOMETHANE	19 UJ	13 U	NA	NA	NA
CHLOROETHANE	38 UJ	25 U	NA	NA	NA
CHLOROFORM	19 UJ	13 U	NA	NA	NA
CHLOROMETHANE	38 UJ	25 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	19 UJ	13 U	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	19 UJ	13 U	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	19 UJ	13 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	38 UJ	25 U	NA	NA	NA
DIISOPROPYL ETHER	19 UJ	13 U	NA	NA	NA
ETHYL TERT-BUTYL ETHER	19 UJ	13 U	NA	NA	NA
ETHYLBENZENE	19 UJ	13 U	NA	NA	NA

LOCATION	SD-41	SD-42	SD-43	SD-44	SD-45
SAMPLE ID	SD-41-SS	SD-42-SS	SD-43-SS	SD-44-SS	SD-45-SS
SAMPLE DATE	20051021	20051021	20081117	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	19 UJ	13 UJ	NA	NA	NA
ISOPROPYLBENZENE	19 UJ	13 UJ	NA	NA	NA
M+P-XYLENES	38 UJ	25 U	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	5 J	4 J	NA	NA	NA
METHYLENE CHLORIDE	19 UJ	13 U	NA	NA	NA
NAPHTHALENE	19 UJ	13 UJ	NA	NA	NA
N-BUTYLBENZENE	19 UJ	13 UJ	NA	NA	NA
N-PROPYLBENZENE	19 UJ	13 UJ	NA	NA	NA
O-XYLENE	19 UJ	13 U	NA	NA	NA
SEC-BUTYLBENZENE	19 UJ	13 UJ	NA	NA	NA
STYRENE	19 UJ	13 U	NA	NA	NA
TERT-AMYL METHYL ETHER	19 UJ	13 U	NA	NA	NA
TERT-BUTYLBENZENE	19 UJ	13 U	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	38 UR	25 UR	NA	NA	NA
TETRACHLOROETHENE	19 UJ	13 U	NA	NA	NA
TOLUENE	19 UJ	3 J	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	38 UJ	25 U	NA	NA	NA
TOTAL XYLENES	56 UJ	38 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	19 UJ	13 U	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	19 UJ	13 U	NA	NA	NA
TRICHLOROETHENE	19 UJ	13 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	38 UJ	25 U	NA	NA	NA
VINYL ACETATE	19 UJ	13 U	NA	NA	NA
VINYL CHLORIDE	38 UJ	25 U	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	380 U	39 J	590 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	380 U	420 U	590 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-41	SD-42	SD-43	SD-44	SD-45
SAMPLE ID	SD-41-SS	SD-42-SS	SD-43-SS	SD-44-SS	SD-45-SS
SAMPLE DATE	20051021	20051021	20081117	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	380 U	73 J	590 U
ACENAPHTHYLENE	NA	NA	380 U	420 U	590 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	180 J	300 J	100 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	NA	NA	1337	1258	1302
BAP EQUIVALENT-POSITIVE RESULTS	NA	NA	1147	1048	1007
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	1100	950	770
BENZO(A)PYRENE	NA	NA	880	850	790
BENZO(B)FLUORANTHENE	NA	NA	950	580	830
BENZO(G,H,I)PERYLENE	NA	NA	550	450	560 J
BENZO(K)FLUORANTHENE	NA	NA	710	620	890
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	1200	1000	930
DIBENZO(A,H)ANTHRACENE	NA	NA	380 U	420 U	590 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	1400	1100	1100
FLUORENE	NA	NA	38 J	120 J	590 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	540	380 J	470 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	380 U	420 U	590 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	670	1200	500 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	NA	NA	1800	2500	1900
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	NA	NA	10018	10123	8840

LOCATION	SD-41	SD-42	SD-43	SD-44	SD-45
SAMPLE ID	SD-41-SS	SD-42-SS	SD-43-SS	SD-44-SS	SD-45-SS
SAMPLE DATE	20051021	20051021	20081117	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	NA	NA	24 U	21 U	30 U
AROCLOR-1221	NA	NA	24 U	21 U	30 U
AROCLOR-1232	NA	NA	24 U	21 U	30 U
AROCLOR-1242	NA	NA	24 U	21 U	30 U
AROCLOR-1248	NA	NA	24 U	21 U	30 U
AROCLOR-1254	NA	NA	400 J	21 U	30 U
AROCLOR-1260	NA	NA	24 U	21 U	270
TOTAL AROCLOR	NA	NA	400	0 U	270
METALS (MG/KG)					
ANTIMONY	0.89 UJ	0.88 U	2.7	0.7	2.3
ARSENIC	6 J	4.2	6.1	4.8	4.8
BARIUM	41.7 J	44	91.9 J	103	29.4
BERYLLIUM	1.6 J	1.5	0.74 J	1.3	0.87
CADMIUM	10.6 J	32.9	296	12.7	22.5
CHROMIUM	173 J	354	699 J	42.4	224
COBALT	14.5 J	17	8.6	9.8	13
COPPER	105 J	101	66.9 J	14.4	72.2
HEXAVALENT CHROMIUM	1.9 UJ	1.2 U	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	108 J	162	178 J	43.5	102
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.35 J	0.29	0.39	0.022	0.18
MOLYBDENUM	1.3 J	1.6	0.59	0.05 U	2.1
NICKEL	29.8 J	33.8	16.1	15.5	20.9
SELENIUM	1 J	0.77 U	0.92	0.51	0.92
SILVER	1.6 B	2.7	0.22 B	0.18	1.2
THALLIUM	1.33 UJ	1.31 U	0.24 U	0.22 U	0.51
VANADIUM	33.6 J	33.2	27.6 J	30.7	28.8
ZINC	313 J	475	287	116	382
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	26	40	70	79	56
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	23000
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-46	SD-47	SD-48	SD-48	SD-48
SAMPLE ID	SD-46-SS	SD-47-SS	SD-48-SS	SD-48-SS-AVG	SD-48-SS-D
SAMPLE DATE	20081115	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-46	SD-47	SD-48	SD-48	SD-48
SAMPLE ID	SD-46-SS	SD-47-SS	SD-48-SS	SD-48-SS-AVG	SD-48-SS-D
SAMPLE DATE	20081115	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	690 U	580 U	490 U	495 U	500 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	690 U	580 U	490 U	495 U	500 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-46	SD-47	SD-48	SD-48	SD-48
SAMPLE ID	SD-46-SS	SD-47-SS	SD-48-SS	SD-48-SS-AVG	SD-48-SS-D
SAMPLE DATE	20081115	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	690 U	580 U	490 U	495 U	500 U
ACENAPHTHYLENE	690 U	580 U	490 U	495 U	500 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	690 U	110 J	490 U	495 U	500 U
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	787	659	490 U	495 U	500 U
BAP EQUIVALENT-POSITIVE RESULTS	62.8	50.4	490 U	495 U	500 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	690 U	580 U	490 U	495 U	500 U
BENZO(A)PYRENE	690 U	580 U	490 U	495 U	500 U
BENZO(B)FLUORANTHENE	380 J	310 J	490 U	495 U	500 U
BENZO(G,H,I)PERYLENE	230 J	580 U	490 U	495 U	500 U
BENZO(K)FLUORANTHENE	340 J	300 J	490 U	495 U	500 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	420 J	390 J	490 U	495 U	500 U
DIBENZO(A,H)ANTHRACENE	690 U	580 U	490 U	495 U	500 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	660 J	710	490 U	495 U	500 U
FLUORENE	690 U	580 U	490 U	495 U	500 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	210 J	160 J	490 U	495 U	500 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	690 U	580 U	490 U	495 U	500 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	280 J	400 J	490 U	495 U	500 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	750	770	490 U	495 U	500 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	3270	3150	0 U	0 U	0 U

LOCATION	SD-46	SD-47	SD-48	SD-48	SD-48
SAMPLE ID	SD-46-SS	SD-47-SS	SD-48-SS	SD-48-SS-AVG	SD-48-SS-D
SAMPLE DATE	20081115	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	35 U	29 U	25 U	25 U	25 U
AROCLOR-1221	35 U	29 U	25 U	25 U	25 U
AROCLOR-1232	35 U	29 U	25 U	25 U	25 U
AROCLOR-1242	35 U	29 U	25 U	25 U	25 U
AROCLOR-1248	35 U	29 U	25 U	25 U	25 U
AROCLOR-1254	35 U	29 U	25 U	25 U	25 U
AROCLOR-1260	160	80	25 U	25 U	25 U
TOTAL AROCLOR	160	80	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.71 L	0.47 L	0.15 UL	0.15 UL	0.15 UL
ARSENIC	6.1	4.1	2.4	2.3	2.2
BARIUM	43.5	27.4	10.6	11.25	11.9
BERYLLIUM	1.3	1.4	1.6	1.55	1.5
CADMIUM	51.7	13.9	0.24	0.18	0.12
CHROMIUM	592	235	11.3	11.1	10.9
COBALT	16	9.7	4.8	4.8	4.8
COPPER	97.2	40.4	7.1	6.7	6.3
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	249	203	4	3.95	3.9
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.39	0.21	0.013 B	0.0107 B	0.0084 U
MOLYBDENUM	1.6	1.2	1.6	1.65	1.7
NICKEL	34.5	17.1	7.5	7.5	7.5
SELENIUM	0.92	1.5	0.49 U	0.495 U	0.5 U
SILVER	2.3	0.81	0.093 U	0.094 U	0.095 U
THALLIUM	0.34 U	0.29 U	0.25 U	0.255 U	0.26 U
VANADIUM	41	22	17.5	15.45	13.4
ZINC	524	296	30.6	26.5	22.4
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	48	57	68	67.5	67
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	7400	7400	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-49	SD-50	SD-51	SD-53	SD-53
SAMPLE ID	SD-49-SS	SD-50-SS	SD-51-SS	SD-53-SS	SD-53-SS-AVG
SAMPLE DATE	20081115	20081114	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-49	SD-50	SD-51	SD-53	SD-53
SAMPLE ID	SD-49-SS	SD-50-SS	SD-51-SS	SD-53-SS	SD-53-SS-AVG
SAMPLE DATE	20081115	20081114	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	540 U	1500 UJ	1300 UJ	780 U	780 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	540 U	1500 UJ	1300 UJ	780 U	780 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-49	SD-50	SD-51	SD-53	SD-53
SAMPLE ID	SD-49-SS	SD-50-SS	SD-51-SS	SD-53-SS	SD-53-SS-AVG
SAMPLE DATE	20081115	20081114	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	540 U	1500 UJ	1300 UJ	780 U	780 U
ACENAPHTHYLENE	540 U	1500 UJ	1300 UJ	780 U	780 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	540 U	1500 UJ	1300 UJ	780 U	780 U
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	540 U	1689	1300 U	780 U	780 U
BAP EQUIVALENT-POSITIVE RESULTS	540 U	39.2	1300 U	780 U	780 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	540 U	1500 UJ	1300 UJ	780 U	780 U
BENZO(A)PYRENE	540 U	1500 UJ	1300 UJ	780 U	780 U
BENZO(B)FLUORANTHENE	540 U	360 J	1300 UJ	780 U	780 U
BENZO(G,H,I)PERYLENE	540 U	1500 UJ	1300 UJ	780 U	780 U
BENZO(K)FLUORANTHENE	540 U	280 J	1300 UJ	780 U	780 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	540 U	380 J	1300 UJ	780 U	780 U
DIBENZO(A,H)ANTHRACENE	540 U	1500 UJ	1300 UJ	780 U	780 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	540 U	500 J	1300 UJ	780 U	780 U
FLUORENE	540 U	1500 UJ	1300 UJ	780 U	780 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	540 U	1500 UJ	1300 UJ	780 U	780 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	540 U	1500 UJ	1300 UJ	780 U	780 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	540 U	1500 UJ	1300 UJ	780 U	780 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	540 U	630 J	1300 UJ	780 U	780 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	2150	0 U	0 U	0 U

LOCATION	SD-49	SD-50	SD-51	SD-53	SD-53
SAMPLE ID	SD-49-SS	SD-50-SS	SD-51-SS	SD-53-SS	SD-53-SS-AVG
SAMPLE DATE	20081115	20081114	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	33 U	370 UJ	65 UJ	39 U	39 U
AROCLOR-1221	33 U	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1232	33 U	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1242	33 U	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1248	33 U	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1254	33 U	7400 UJ	65 UJ	39 U	39 U
AROCLOR-1260	33 U	2300 J	65 UJ	39 U	39 U
TOTAL AROCLOR	0 U	2300	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.21 U	0.44 UJ	0.39 UJ	0.24 UL	0.235 UL
ARSENIC	2.4	12.2 J	11.6 J	6.1	6.4
BARIUM	90.9 J	57.6 J	55.9 J	31.8	30.9
BERYLLIUM	1.4 J	2.2 J	2.1 J	1.9	1.95
CADMIUM	0.42	5.7 J	7.8 J	0.31	0.17225
CHROMIUM	16.1 J	161 J	192 J	36.3	35.35
COBALT	9.3	20.4 J	21.5 J	12.3	12.35
COPPER	26.9 J	152 J	131 J	21.6	21.35
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	60 J	130 J	136 J	17.6	16.8
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.035 B	0.45 J	0.53 J	0.061	0.1155
MOLYBDENUM	0.082 U	1.3 J	1.6 J	0.96	0.7175
NICKEL	17.7	41.8 J	39.5 J	20.4	21.05
SELENIUM	0.67 U	1.6 J	2.2 J	1.7	1.04
SILVER	0.17 B	2.1 J	2.6 J	0.15 U	0.15 U
THALLIUM	0.35 U	0.75 UJ	0.66 UJ	0.41 U	0.405 U
VANADIUM	15 J	62.1 J	60.8 J	36.4	37.05
ZINC	116	375 J	374 J	70.6	68.45
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	50	NA	26	42	42
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-53	SD-54	SD-55	SD-56	SD-57
SAMPLE ID	SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS	SD-57-SS
SAMPLE DATE	20081114	20081114	20081113	20081113	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-53	SD-54	SD-55	SD-56	SD-57
SAMPLE ID	SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS	SD-57-SS
SAMPLE DATE	20081114	20081114	20081113	20081113	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	780 U	1600 UJ	1400 UJ	940 U	830 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	780 U	1600 UJ	1400 UJ	940 U	830 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-53	SD-54	SD-55	SD-56	SD-57
SAMPLE ID	SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS	SD-57-SS
SAMPLE DATE	20081114	20081114	20081113	20081113	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	780 U	1600 UJ	1400 UJ	940 U	830 U
ACENAPHTHYLENE	780 U	1600 UJ	1400 UJ	940 U	830 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	780 U	1600 UJ	1400 UJ	82 J	830 U
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	780 U	1813	1561	1075	830 U
BAP EQUIVALENT-POSITIVE RESULTS	780 U	52.8	19.9	87.6	830 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	780 U	1600 UJ	1400 UJ	940 U	830 U
BENZO(A)PYRENE	780 U	1600 UJ	1400 UJ	940 U	830 U
BENZO(B)FLUORANTHENE	780 U	480 J	180 J	530 J	830 U
BENZO(G,H,I)PERYLENE	780 U	1600 UJ	1400 UJ	300 J	830 U
BENZO(K)FLUORANTHENE	780 U	440 J	190 J	410 J	830 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	780 U	420 J	1400 UJ	460 J	830 U
DIBENZO(A,H)ANTHRACENE	780 U	1600 UJ	1400 UJ	940 U	830 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	780 U	590 J	270 J	700 J	830 U
FLUORENE	780 U	1600 UJ	1400 UJ	940 U	830 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	780 U	1600 UJ	1400 UJ	300 J	830 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	780 U	1600 UJ	1400 UJ	940 U	830 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	780 U	300 J	1400 UJ	240 J	830 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	780 U	1100 J	470 J	910 J	830 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	3330	1110	3932	0 U

LOCATION	SD-53	SD-54	SD-55	SD-56	SD-57
SAMPLE ID	SD-53-SS-D	SD-54-SS	SD-55-SS	SD-56-SS	SD-57-SS
SAMPLE DATE	20081114	20081114	20081113	20081113	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	39 U	79 UJ	71 UJ	47 U	41 U
AROCLOR-1221	39 U	79 UJ	71 UJ	47 U	410 UJ
AROCLOR-1232	39 U	79 UJ	71 UJ	47 U	410 UJ
AROCLOR-1242	39 U	79 UJ	71 UJ	47 U	410 UJ
AROCLOR-1248	39 U	79 UJ	71 UJ	47 U	410 UJ
AROCLOR-1254	39 U	79 UJ	71 UJ	47 U	410 UJ
AROCLOR-1260	39 U	79 UJ	180 J	36 J	41 U
TOTAL AROCLOR	0 U	0 U	180	36	0 U
METALS (MG/KG)					
ANTIMONY	0.23 UL	0.63 J	0.45 UJ	0.28 UL	0.25 UJ
ARSENIC	6.7	12.1 J	12.9 J	8.7	7.4
BARIUM	30	61.8 J	62.4 J	36.9	34.2
BERYLLIUM	2	2.1 J	2.3 J	1.5	2.1
CADMIUM	0.069 B	3.7 J	5.1 J	3.7	0.015 U
CHROMIUM	34.4	138 J	166 J	91.1	37.7
COBALT	12.4	20.2 J	21.2 J	14.1	14.8
COPPER	21.1	164 J	169 J	100	20.4
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	16	119 J	133 J	79.6	15.4
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.17	0.43 J	0.45 J	0.24	0.036
MOLYBDENUM	0.95 B	1.1 J	1.4 J	0.94	0.87 B
NICKEL	21.7	39.5 J	42.4 J	27.2	24.3
SELENIUM	0.76 U	2.5 J	2.6 J	1.3	0.83 U
SILVER	0.15 U	1.9 J	2.2 J	1.2	0.16 U
THALLIUM	0.4 U	0.8 UJ	0.77 UJ	0.48 U	0.43 U
VANADIUM	37.7	61.1 J	67.6 J	44.5	42.2
ZINC	66.3	347 J	378 J	250	72.2
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	21	24	36	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	25000	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-SS	SD-59-SS	SD-60-SS	SD-61-SS	SD-62-SS
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-SS	SD-59-SS	SD-60-SS	SD-61-SS	SD-62-SS
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-SS	SD-59-SS	SD-60-SS	SD-61-SS	SD-62-SS
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
ACENAPHTHYLENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	1300 UJ	750 U	850 U	400 J	890 UJ
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	1453	840	982	2244	890 U
BAP EQUIVALENT-POSITIVE RESULTS	22.9	53.0	0.17	1544	890 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1300 UJ	750 U	850 U	1300 J	890 UJ
BENZO(A)PYRENE	1300 UJ	750 U	850 U	1200 J	890 UJ
BENZO(B)FLUORANTHENE	210 J	330 J	850 U	1300 J	890 UJ
BENZO(G,H,I)PERYLENE	1300 UJ	750 U	850 U	700 J	890 UJ
BENZO(K)FLUORANTHENE	160 J	260 J	850 U	1300 J	890 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	280 J	380 J	170 J	1500 J	890 UJ
DIBENZO(A,H)ANTHRACENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	300 J	480 J	200 J	2600 J	890 UJ
FLUORENE	1300 UJ	750 U	850 U	130 J	890 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1300 UJ	170 J	850 U	690 J	890 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1300 UJ	750 U	850 U	1400 UJ	890 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1300 UJ	240 J	850 U	1700 J	890 UJ
PHENOL	NA	NA	NA	NA	NA
PYRENE	340 J	680 J	330 J	3700 J	890 UJ
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	1290	2540	700	16520	0 U

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-SS	SD-59-SS	SD-60-SS	SD-61-SS	SD-62-SS
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1221	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1232	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1242	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1248	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1254	1300 UJ	230 U	53 U	68 UJ	56 UJ
AROCLOR-1260	6300 J	4200	53 U	370 J	56 UJ
TOTAL AROCLOR	6300	4200	0 U	370	0 U
METALS (MG/KG)					
ANTIMONY	0.37 UJ	0.27 U	1.7 J	0.9 J	0.92 J
ARSENIC	12.8 J	9	9.5	11.7 J	9.5 J
BARIUM	61.9 J	54.8 J	52.8 J	52.8 J	46.5 J
BERYLLIUM	2.3 J	2.1 J	1.9 J	2.1 J	1.9 J
CADMIUM	7.1 J	20.1	14.7	5.8 J	5.4 J
CHROMIUM	180 J	397 J	272 J	154 J	118 J
COBALT	23.5 J	19.8	19.2 J	19.4 J	17.1 J
COPPER	144 J	94.4 J	96.5 J	142 J	104 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	181 J	167 J	132	121 J	98.9 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.47 J	0.9	0.7	0.37 J	0.35 J
MOLYBDENUM	1.3 B	0.86	1.2	1.5 J	1.2 J
NICKEL	46.3 J	42.8	41.7 J	38.2 J	36.1 J
SELENIUM	1.5 J	2.4	2.1	2.3 J	1.9 J
SILVER	2.3 J	7.5	5.8	2.4 J	2.3 J
THALLIUM	0.64 UJ	0.46 U	0.56 U	0.74 UJ	0.58 UJ
VANADIUM	64.3 J	64.3 J	56.1 J	60.3 J	52.9 J
ZINC	441 J	433	404 J	361 J	325 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	36	31	24	30
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	22000	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-SS	SD-64-SS	SD-65-SS	SD-66-SS	SD-67-SS
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-SS	SD-64-SS	SD-65-SS	SD-66-SS	SD-67-SS
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-SS	SD-64-SS	SD-65-SS	SD-66-SS	SD-67-SS
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
ACENAPHTHYLENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	940 UJ	140 J	1300 UJ	1100 UJ	1400 UJ
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	1032	1648	1300 U	1100 U	1400 U
BAP EQUIVALENT-POSITIVE RESULTS	45.5	1181	1300 U	1100 U	1400 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
BENZO(A)PYRENE	940 UJ	1000	1300 UJ	1100 UJ	1400 UJ
BENZO(B)FLUORANTHENE	320 J	1100	1300 UJ	1100 UJ	1400 UJ
BENZO(G,H,I)PERYLENE	940 UJ	700 J	1300 UJ	1100 UJ	1400 UJ
BENZO(K)FLUORANTHENE	220 J	860	1300 UJ	1100 UJ	1400 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	260 J	960	1300 UJ	1100 UJ	1400 UJ
DIBENZO(A,H)ANTHRACENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	340 J	1200	1300 UJ	1100 UJ	1400 UJ
FLUORENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	110 J	610 J	1300 UJ	1100 UJ	1400 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	940 UJ	850 U	1300 UJ	1100 UJ	1400 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	940 UJ	500 J	1300 UJ	1100 UJ	1400 UJ
PHENOL	NA	NA	NA	NA	NA
PYRENE	620 J	2600 J	1300 UJ	1100 UJ	1400 UJ
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	1870	9670	0 U	0 U	0 U

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-SS	SD-64-SS	SD-65-SS	SD-66-SS	SD-67-SS
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1221	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1232	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1242	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1248	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1254	59 UJ	53 U	63 UJ	71 UJ	69 UJ
AROCLOR-1260	560 J	1600	130 J	71 UJ	120 J
TOTAL AROCLOR	560	1600	130	0 U	120
METALS (MG/KG)					
ANTIMONY	1.3 J	1.4 J	0.36 UJ	1.2 J	0.4 UJ
ARSENIC	10.5 J	10.4	12 J	12.3 J	11 J
BARIUM	52.3 J	54.6 J	52.3 J	58.6 J	58 J
BERYLLIUM	2.1 J	2.1 J	2.2 J	2.3 J	2.2 J
CADMIUM	6.3 J	9.5 J	4.6 J	7.4 J	6.7 J
CHROMIUM	134 J	194 J	120 J	137 J	149 J
COBALT	19.4 J	19.4 J	18.1 J	20.8 J	19.7 J
COPPER	134 J	95.6 J	130 J	140 J	118 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	117 J	175 J	110 J	125 J	123 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.41 J	0.51	0.36 J	0.44 J	0.42 J
MOLYBDENUM	1.5 J	1.5 J	1.5 B	2.2 J	1.6 B
NICKEL	40.3 J	45.7 J	37.3 J	44.2 J	41.5 J
SELENIUM	2.4 J	2.6 J	1.8 J	3.1 J	1.8 J
SILVER	2.6 J	4.1 J	2.1 J	2.5 J	3.5 J
THALLIUM	0.61 UJ	0.57 U	0.62 U	0.72 UJ	0.68 UJ
VANADIUM	60.3 J	68.8 J	60.4 J	65.1 J	61.3 J
ZINC	393 J	367 J	348 J	456 J	395 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	28	32	NA	23	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	24000 J
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-68	SD-69	SD-69	SD-69	SD-70
SAMPLE ID	SD-68-SS	SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE	20081112	20081111	20081111	20081111	20081111
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-68	SD-69	SD-69	SD-69	SD-70
SAMPLE ID	SD-68-SS	SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE	20081112	20081111	20081111	20081111	20081111
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-68	SD-69	SD-69	SD-69	SD-70
SAMPLE ID	SD-68-SS	SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE	20081112	20081111	20081111	20081111	20081111
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
ACENAPHTHYLENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	1271	450 U	450 U	450 U	6400 U
BAP EQUIVALENT-POSITIVE RESULTS	0.18	450 U	450 U	450 U	6400 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
BENZO(A)PYRENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
BENZO(B)FLUORANTHENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
BENZO(G,H,I)PERYLENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
BENZO(K)FLUORANTHENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	180 J	450 U	450 UJ	450 UJ	6400 UJ
DIBENZO(A,H)ANTHRACENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	190 J	450 U	450 UJ	450 UJ	820 J
FLUORENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1100 UJ	450 U	450 UJ	450 UJ	6400 UJ
PHENOL	NA	NA	NA	NA	NA
PYRENE	430 J	450 U	450 UJ	450 UJ	6400 UJ
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	800	0 U	0 U	0 U	820

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-68	SD-69	SD-69	SD-69	SD-70
SAMPLE ID	SD-68-SS	SD-69-SS	SD-69-SS-AVG	SD-69-SS-D	SD-70-SS
SAMPLE DATE	20081112	20081111	20081111	20081111	20081111
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1221	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1232	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1242	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1248	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1254	67 UJ	23 U	23 U	23 U	64 UJ
AROCLOR-1260	67 UJ	23 U	23 U	23 U	290 J
TOTAL AROCLOR	0 U	0 U	0 U	0 U	290
METALS (MG/KG)					
ANTIMONY	1.2 J	2.3 L	1.1825 JL	0.13 UJ	1.1 J
ARSENIC	11.4 J	6.6	6.55	6.5	12.2 J
BARIUM	59.6 J	16.5	17.55	18.6	56 J
BERYLLIUM	2.3 J	5.3	6.1	6.9	2.2 J
CADMIUM	6.2 J	0.07	0.03695	0.0078 U	5.7 J
CHROMIUM	135 J	18.1	17.4	16.7	129 J
COBALT	20.5 J	28.1	28.3	28.5	19.8 J
COPPER	129 J	19.8	16.95 J	14.1 J	138 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	122 J	57.2	32.5 J	7.8 J	122 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.41 J	0.013 B	0.00925	0.012	0.4 J
MOLYBDENUM	1.8 J	0.81	0.55	0.58 B	2 J
NICKEL	43.1 J	49.3	50.1 J	50.9 J	42.5 J
SELENIUM	2.8 J	0.42 UL	0.345 JL	0.48 J	1.2 UJ
SILVER	2.5 J	0.081 U	0.082 U	0.083 U	2.3 J
THALLIUM	0.69 UJ	0.22 U	0.225 U	0.23 U	0.63 UJ
VANADIUM	64.9 J	27.1 K	28.85 K	30.6	65.4 J
ZINC	433 J	148	158 J	168 J	401 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	25	74	74	NA	26
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-71	SD-72	SD-73	SD-74	SD-75
SAMPLE ID	SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS	SD-75-SS
SAMPLE DATE	20081111	20081112	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-71	SD-72	SD-73	SD-74	SD-75
SAMPLE ID	SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS	SD-75-SS
SAMPLE DATE	20081111	20081112	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1300 UJ	350 U	750 U	490 U	490 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1300 UJ	350 U	750 U	490 U	490 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-71	SD-72	SD-73	SD-74	SD-75
SAMPLE ID	SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS	SD-75-SS
SAMPLE DATE	20081111	20081112	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1300 UJ	350 U	750 U	490 U	130 J
ACENAPHTHYLENE	1300 UJ	350 U	750 U	490 U	490 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	1300 UJ	350 U	750 U	64 J	280 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	1300 U	350 U	830	562.9	2165
BAP EQUIVALENT-POSITIVE RESULTS	1300 U	350 U	42.1	48.4	1920
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1300 UJ	350 U	750 U	490 U	1400
BENZO(A)PYRENE	1300 UJ	350 U	750 U	490 U	1500
BENZO(B)FLUORANTHENE	1300 UJ	350 U	330 J	300 J	1800 J
BENZO(G,H,I)PERYLENE	1300 UJ	350 U	750 U	140 J	850
BENZO(K)FLUORANTHENE	1300 UJ	350 U	99 J	300 J	1600
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1300 UJ	350 U	220 J	360 J	1800
DIBENZO(A,H)ANTHRACENE	1300 UJ	350 U	750 U	490 U	490 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1300 UJ	350 U	400 J	620	2400
FLUORENE	1300 UJ	350 U	750 U	490 U	110 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1300 UJ	350 U	79 J	150 J	820
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1300 UJ	350 U	750 U	490 U	490 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1300 UJ	350 U	750 U	250 J	1500
PHENOL	NA	NA	NA	NA	NA
PYRENE	1300 UJ	350 UJ	390 J	660	3400 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	1518	2844	17590

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-71	SD-72	SD-73	SD-74	SD-75
SAMPLE ID	SD-71-SS	SD-72-SS	SD-73-SS	SD-74-SS	SD-75-SS
SAMPLE DATE	20081111	20081112	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1221	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1232	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1242	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1248	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1254	65 UJ	22 U	37 U	24 U	30 U
AROCLOR-1260	65 UJ	22 U	37 U	21 J	530 J
TOTAL AROCLOR	0 U	0 U	0 U	21	530
METALS (MG/KG)					
ANTIMONY	1.4 B	0.13 UL	0.22 UL	0.61 L	1.3 J
ARSENIC	10.3 J	4.7	6.4	5.4	5.5
BARIUM	53.1 J	17.2 J	22.4	64.8	38.9 J
BERYLLIUM	2 J	1 J	1.8	1.8	0.83 J
CADMIUM	3.6 J	0.0079 UL	0.3	2.7	2.6
CHROMIUM	102 J	25.4 J	57.2	67.6	65.2 J
COBALT	17.1 J	3 J	11.9	12.8	10 J
COPPER	129 J	21.2 J	22.6	67.1	84.2 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	99.1 J	7.2 J	13.5	58.4	79.9
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.33 J	0.024 B	0.038 B	0.3	0.25
MOLYBDENUM	1.2 B	0.64 J	2.2	0.74	1.9
NICKEL	35.2 J	9.4 J	35.3	23.1	23.4 J
SELENIUM	1.4 J	0.64 J	0.72 UL	0.46 UL	2
SILVER	1.5 J	0.084 UL	0.14 U	4.3	1.9
THALLIUM	0.65 UJ	0.23 U	0.38 U	0.24 U	0.31 U
VANADIUM	55.3 J	46.1 J	42 K	34.2 K	29.7 J
ZINC	342 J	26 J	71.8	90.3	224 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	77	44	68	55
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	1600	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-76	SD-77	SD-79	SD-80	SD-81
SAMPLE ID	SD-76-SS	SD-77-SS	SD-79-SS	SD-80-SS	SD-81-SS
SAMPLE DATE	20081111	20081110	20081114	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-76	SD-77	SD-79	SD-80	SD-81
SAMPLE ID	SD-76-SS	SD-77-SS	SD-79-SS	SD-80-SS	SD-81-SS
SAMPLE DATE	20081111	20081110	20081114	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	5200 U	3200 U	790 U	920 U	460 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	5200 U	3200 U	790 U	920 U	460 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-76	SD-77	SD-79	SD-80	SD-81
SAMPLE ID	SD-76-SS	SD-77-SS	SD-79-SS	SD-80-SS	SD-81-SS
SAMPLE DATE	20081111	20081110	20081114	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	5200 U	3200 U	790 U	920 U	460 U
ACENAPHTHYLENE	5200 U	3200 U	790 U	920 U	460 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	5200 U	500 J	790 U	920 U	460 U
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	5664	4021	790 U	920 U	530
BAP EQUIVALENT-POSITIVE RESULTS	204	661	790 U	920 U	0.73
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	5200 U	3200 U	790 U	920 U	460 U
BENZO(A)PYRENE	5200 U	3200 U	790 U	920 U	460 U
BENZO(B)FLUORANTHENE	1300 J	4800 J	790 U	920 U	460 U
BENZO(G,H,I)PERYLENE	580 J	1600 J	790 U	920 U	460 U
BENZO(K)FLUORANTHENE	1500 J	1700 J	790 U	920 U	65 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1700 J	4200	790 U	920 U	84 J
DIBENZO(A,H)ANTHRACENE	5200 U	3200 U	790 U	920 U	460 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	2700 J	6800	790 U	920 U	100 J
FLUORENE	5200 U	3200 U	790 U	920 U	460 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	570 J	1600 J	790 U	920 U	460 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	5200 U	3200 U	790 U	920 U	460 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	5200 U	2800 J	790 U	920 U	460 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	3100 J	7100	790 U	920 U	150 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	11450	31100	0 U	0 U	399

LOCATION	SD-76	SD-77	SD-79	SD-80	SD-81
SAMPLE ID	SD-76-SS	SD-77-SS	SD-79-SS	SD-80-SS	SD-81-SS
SAMPLE DATE	20081111	20081110	20081114	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	52 U	32 U	39 U	46 U	23 U
AROCLOR-1221	52 U	32 U	39 U	46 U	230 UJ
AROCLOR-1232	52 U	32 U	39 U	46 U	230 UJ
AROCLOR-1242	52 U	32 U	39 U	46 U	230 UJ
AROCLOR-1248	52 U	32 U	39 U	46 U	230 UJ
AROCLOR-1254	52 U	32 U	39 U	46 U	230 UJ
AROCLOR-1260	83	170 J	39 U	46 U	52
TOTAL AROCLOR	83	170	0 U	0 U	52
METALS (MG/KG)					
ANTIMONY	1.2 L	0.94 L	0.32 B	0.27 UJ	0.15 B
ARSENIC	10.8	5	6.5	8.7	1.5
BARIUM	48.4	112	37.8	43.2	6.2
BERYLLIUM	1.6	1	1.2	1.7	0.19
CADMIUM	3.5	14.7	1.8	0.016 U	1.1
CHROMIUM	65.6	145	43.6	36.2	19.9
COBALT	16.2	7.6	12.7	14.9	3.2
COPPER	105	101	30.6	20	19.9
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	97.5	191	28.2	16.9	23.7
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.24	0.64	0.096	0.038	0.067
MOLYBDENUM	1.4	1.6	0.73 B	0.63 B	0.23 B
NICKEL	32.8	32.5	21.6	24.1	4.8
SELENIUM	1 UL	1.5 K	0.79 U	1.4	0.46 U
SILVER	1	15.7	0.15 U	0.17 U	0.2 B
THALLIUM	0.53 U	0.63 U	0.41 U	0.47 U	0.24 U
VANADIUM	50.4 K	53.5 K	35.9	47.5	6.5
ZINC	360	275	94.2	72.6	52.2
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	32	52	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-SS	SD-83-SS	SD-84-SS	SD-85-SS	SD-86-SS
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-SS	SD-83-SS	SD-84-SS	SD-85-SS	SD-86-SS
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	930 U	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	930 U	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-SS	SD-83-SS	SD-84-SS	SD-85-SS	SD-86-SS
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	930 U	11 U	540	22 J	84 J
ACENAPHTHYLENE	930 U	13 U	790	140	120 J
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	930 U	46 J	2300	170	350
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	930 U	466	6326	875	2702
BAP EQUIVALENT-POSITIVE RESULTS	930 U	466	6325	875	2702
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	930 U	160	5000	390	1600
BENZO(A)PYRENE	930 U	160	4400	450	1500
BENZO(B)FLUORANTHENE	930 U	290	4700	540	2600
BENZO(G,H,I)PERYLENE	930 U	310	2900	550	1700
BENZO(K)FLUORANTHENE	930 U	23 U	22 U	190	41 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	930 U	180	5400	520	1700
DIBENZO(A,H)ANTHRACENE	930 U	230	720	280	630
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	160 J	290	10000	570	2700
FLUORENE	930 U	15 U	1400	43 J	100 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	930 U	310	2300	500	1500
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	930 U	9.8 U	200	29 J	52 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	930 U	140	12000	290	1500
PHENOL	NA	NA	NA	NA	NA
PYRENE	930 U	290	11000	770	3300
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	160	2406	63650	5454	19436

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-SS	SD-83-SS	SD-84-SS	SD-85-SS	SD-86-SS
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	47 U	1.7 U	1.6 U	1.7 U	3 U
AROCLOR-1221	840 UJ	2.2 U	2.1 U	2.1 U	3.9 U
AROCLOR-1232	840 UJ	2 U	1.9 U	1.9 U	3.5 U
AROCLOR-1242	840 UJ	1.9 U	1.8 U	1.8 U	3.3 U
AROCLOR-1248	840 UJ	1.1 U	1 U	1.1 U	1.9 U
AROCLOR-1254	840 UJ	1.6 U	1.5 U	1.6 U	2.9 U
AROCLOR-1260	200	35	83	35	290 J
TOTAL AROCLOR	200	35	83	35	290
METALS (MG/KG)					
ANTIMONY	0.29 UJ	0.2 B	2320 L	1.1 L	1.9 J
ARSENIC	9.1	1.8 L	11 L	3.4 L	6
BARIUM	32.1	NA	NA	NA	NA
BERYLLIUM	1	0.59	1.2 L	0.77	1.4 J
CADMIUM	6.4	0.39 L	29.5 L	8.5 L	41.2
CHROMIUM	129	12.1	76.6	55.3	296 K
COBALT	13.6	NA	NA	NA	NA
COPPER	135	23.2 L	37 L	16.9 L	97.1
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	98.1	67.6	31500	53.1	202
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.35	0.035	0.19	0.081	0.27
MOLYBDENUM	0.9 B	NA	NA	NA	NA
NICKEL	26.1	11.6 L	13.4 L	16.6 L	35.5
SELENIUM	0.94 U	0.39 L	0.83 L	0.47 L	1.3
SILVER	1.3 B	0.069	2.2 L	0.16	2.7 J
THALLIUM	0.49 U	0.049 J	0.12	0.059 J	0.17
VANADIUM	32.9	NA	NA	NA	NA
ZINC	246	81.5 L	163 L	127 L	595
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	6710	7230 L	9890	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	1.5	NA
CADMIUM	NA	NA	NA	0.085 J	NA
CHROMIUM	NA	NA	NA	0.61 J	NA
COPPER	NA	NA	NA	0.12	NA
LEAD	NA	NA	NA	0.16 J	NA
NICKEL	NA	NA	NA	0.096 J	NA
SILVER	NA	NA	NA	0.00072	NA
ZINC	NA	NA	NA	1.2 J	NA

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-91
SAMPLE ID	SD-87-SS	SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-91
SAMPLE ID	SD-87-SS	SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-91
SAMPLE ID	SD-87-SS	SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	85 J	120	38 J	62 J	2.3 U
ACENAPHTHYLENE	120 J	210	110 J	120 J	2.7 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	300	320	160 J	190 J	2.3 U
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	2392	1630	572	1737	3.4
BAP EQUIVALENT-POSITIVE RESULTS	2391	1630	565	1737	0.56
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1200	890	390 J	810 J	5.6 J
BENZO(A)PYRENE	1300	920	400 J	1100 J	2.4 U
BENZO(B)FLUORANTHENE	2100	1700	760 J	2000 J	3.7 U
BENZO(G,H,I)PERYLENE	1400	880	550 J	1100 J	2.4 U
BENZO(K)FLUORANTHENE	45 U	22 U	23 UJ	12 UJ	4.8 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1400	1100	460 J	1200 J	2.8 U
DIBENZO(A,H)ANTHRACENE	630	370	13 UJ	270 J	2.6 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1700	1800	750 J	2500 J	8 J
FLUORENE	67 J	100 J	62 J	82 J	3.1 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1300	800	500 J	850 J	2.4 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	62 J	140	95 J	88 J	2 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	830	630	270 J	650 J	3.8 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	2000	1500	670 J	1600 J	6.2 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	14494	11480	5215	12622	19.8

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-91
SAMPLE ID	SD-87-SS	SD-88-SS	SD-89-SS	SD-90-SS	SD-91-SS
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	3.3 U	3.9 U	4.3 UJ	4.6 UJ	1.8 U
AROCLOR-1221	4.2 U	5 U	5.5 UJ	5.8 UJ	2.3 U
AROCLOR-1232	3.8 U	4.5 U	5 UJ	5.2 UJ	2 U
AROCLOR-1242	3.6 U	4.3 U	4.7 UJ	5 UJ	1.9 U
AROCLOR-1248	2.1 U	2.5 U	2.7 UJ	2.9 UJ	1.1 U
AROCLOR-1254	3.1 U	3.7 U	4.1 UJ	4.4 UJ	1.7 U
AROCLOR-1260	380	6600	1800 J	690 J	1.7 U
TOTAL AROCLOR	380	6600	1800	690	0 U
METALS (MG/KG)					
ANTIMONY	1 L	0.75 J	0.9 J	1.4 J	0.2 J
ARSENIC	6.2	7.8 L	9.8 J	8.9 J	3.6
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.3	1.8 L	2.1 J	1.8 J	2.4
CADMIUM	32.9	19.3 J	11.9 J	5.2 J	0.18
CHROMIUM	277	336 L	251 J	110 J	21
COBALT	NA	NA	NA	NA	NA
COPPER	108	94.2 L	118 J	116 J	21.7
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	142 K	170	147 J	111 J	6.6 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.3	1.1	0.76 J	0.43 J	0.0078 U
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	32.8	40.3 L	42.9 J	36.4 J	15
SELENIUM	1.2	1.9 L	2 J	1.8 J	0.76
SILVER	1.4	7.2 L	5.6 J	2.8 J	0.029 J
THALLIUM	0.2	0.29 K	0.32 J	0.24 J	0.084 J
VANADIUM	NA	NA	NA	NA	NA
ZINC	524	404 L	415 J	382 J	40.2
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	58100	31600	28600	28000 J	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	18.4	3.3	11.9	22.6 J	NA
CADMIUM	0.25	0.15	0.087	0.034 J	NA
CHROMIUM	1.6	2.5	1.7	0.71 J	NA
COPPER	0.011 B	0.53	0.68	0.086 J	NA
LEAD	0.52	0.63	0.5	0.36 J	NA
NICKEL	0.14	0.19	0.16	0.17 J	NA
SILVER	0.00036 U	0.011	0.0093	0.0005 UJ	NA
ZINC	6.8	4.1	4	3.9 J	NA

LOCATION	SD-92	SD-93	SD-94	SD-95	SD-96
SAMPLE ID	SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS	SD-96-SS
SAMPLE DATE	20100817	20100817	20100817	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-92	SD-93	SD-94	SD-95	SD-96
SAMPLE ID	SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS	SD-96-SS
SAMPLE DATE	20100817	20100817	20100817	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-92	SD-93	SD-94	SD-95	SD-96
SAMPLE ID	SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS	SD-96-SS
SAMPLE DATE	20100817	20100817	20100817	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1.2 U	3.9 J	4.5 U	26 J	38 J
ACENAPHTHYLENE	1.4 U	8.7 J	5.3 U	33 J	110 J
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	2.6 J	15 J	4.6 U	73 J	170 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	15.7	136	37.2	552	722
BAP EQUIVALENT-POSITIVE RESULTS	15.0	136	34.6	552	715
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	8.7 J	55	16 J	250 J	380 J
BENZO(A)PYRENE	9.4 J	60	22 J	290 J	500 J
BENZO(B)FLUORANTHENE	14	130	27 J	560 J	1100 J
BENZO(G,H,I)PERYLENE	29	78	67	340 J	730 J
BENZO(K)FLUORANTHENE	2.5 U	3.8 U	9.7 J	10 UJ	28 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	9.1 J	75	21 J	310 J	530 J
DIBENZO(A,H)ANTHRACENE	1.4 U	49	5.2 U	150 J	15 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	16	110	41 J	470 J	870 J
FLUORENE	2.2 J	5.3 J	6.1 U	29 J	63 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	33	80	82	310 J	660 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	2.8 J	5.1 J	4 U	48 J	100 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	7.2 J	36	7.4 U	180 J	330 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	18	100	28 J	520 J	770 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	152	811	313.7	3589	6351

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-92	SD-93	SD-94	SD-95	SD-96
SAMPLE ID	SD-92-SS	SD-93-SS	SD-94-SS	SD-95-SS	SD-96-SS
SAMPLE DATE	20100817	20100817	20100817	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	2.3 U	1.8 U	3.5 U	4.7 UJ	5.1 UJ
AROCLOR-1221	3 U	2.3 U	4.4 U	6 UJ	6.6 UJ
AROCLOR-1232	2.7 U	2 U	4 U	5.4 UJ	5.9 UJ
AROCLOR-1242	2.5 U	1.9 U	3.8 U	5.1 UJ	5.6 UJ
AROCLOR-1248	1.5 U	1.1 U	2.2 U	3 UJ	3.3 UJ
AROCLOR-1254	2.2 U	1.7 U	3.3 U	4.5 UJ	4.9 UJ
AROCLOR-1260	2.2 U	73	44	720 J	1800 J
TOTAL AROCLOR	0 U	73	44	720	1800
METALS (MG/KG)					
ANTIMONY	0.13 B	0.27 L	0.11 J	0.57 J	0.55 J
ARSENIC	3.9	4.2	4.6	8.4 J	9.7 J
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.5	0.81	1.7	1.9 J	1.7 J
CADMIUM	0.21	1.1	0.88	7.7 J	5.2 J
CHROMIUM	15	17.9	30.9	165 J	120 J
COBALT	NA	NA	NA	NA	NA
COPPER	12.8	21.8	25.1	96.9 J	130 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	5.1 K	21.5 K	15.9 J	118 J	112 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.024 J	0.048	0.056	0.54 J	0.51 J
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	12.5	10.4	20.2	37.6 J	35.1 J
SELENIUM	0.68	0.42	1.2	1.7 J	1.9 J
SILVER	0.033 J	0.19	0.15	3.7 J	2 J
THALLIUM	0.066 J	0.053 J	0.16 J	0.25 J	0.24 J
VANADIUM	NA	NA	NA	NA	NA
ZINC	40.4	100	77.3	360 J	350 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-97	SD-98	SD-99	SD-100	SD-101
SAMPLE ID	SD-97-SS	SD-98-SS	SD-99-SS	SD-100-SS	SD-101-SS
SAMPLE DATE	20100817	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-97	SD-98	SD-99	SD-100	SD-101
SAMPLE ID	SD-97-SS	SD-98-SS	SD-99-SS	SD-100-SS	SD-101-SS
SAMPLE DATE	20100817	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-97	SD-98	SD-99	SD-100	SD-101
SAMPLE ID	SD-97-SS	SD-98-SS	SD-99-SS	SD-100-SS	SD-101-SS
SAMPLE DATE	20100817	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	6.9 UJ	38 J	8.3 U	10 J	18 J
ACENAPHTHYLENE	38 J	100 J	9.9 U	50	53 J
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	49 J	170	8.5 U	47	87 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	369	811	8.7 U	291	313
BAP EQUIVALENT-POSITIVE RESULTS	369	810	8.7 U	291	305
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	130 J	300	11 U	170	220 J
BENZO(A)PYRENE	170 J	400	8.7 U	160	200 J
BENZO(B)FLUORANTHENE	320 J	820	14 U	300	420 J
BENZO(G,H,I)PERYLENE	250 J	530	8.6 U	150	400 J
BENZO(K)FLUORANTHENE	14 UJ	22 U	18 U	5.1 U	28 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	190 J	430	10 U	160	220 J
DIBENZO(A,H)ANTHRACENE	130 J	250	9.6 U	70	15 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	370 J	660	9.3 U	250	340 J
FLUORENE	23 J	60 J	11 U	19 J	37 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	240 J	480	8.9 U	140	410 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	53 J	92 J	7.5 U	20 J	58 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	120 J	260	14 U	97	150 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	250 J	690	8.8 U	210	350 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	2333	5280	0 U	1853	2963

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-97	SD-98	SD-99	SD-100	SD-101
SAMPLE ID	SD-97-SS	SD-98-SS	SD-99-SS	SD-100-SS	SD-101-SS
SAMPLE DATE	20100817	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	5.3 UJ	4 U	3.2 U	1.9 U	5.1 UJ
AROCLOR-1221	6.8 UJ	5.2 U	4.1 U	2.4 U	6.5 UJ
AROCLOR-1232	6.1 UJ	4.7 U	3.7 U	2.2 U	5.9 UJ
AROCLOR-1242	5.8 UJ	4.4 U	3.5 U	2.1 U	5.6 UJ
AROCLOR-1248	3.4 UJ	2.6 U	2 U	1.2 U	3.2 UJ
AROCLOR-1254	5.1 UJ	3.9 U	3 U	1.8 U	4.9 UJ
AROCLOR-1260	620 J	2700 J	14 J	99	190 J
TOTAL AROCLOR	620	2700	14	99	190
METALS (MG/KG)					
ANTIMONY	0.71 J	0.8 J	0.099 B	0.15 J	0.61 J
ARSENIC	10.9 J	10.1 L	4.7	2.1 L	10 J
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	2.1 J	1.9 L	1.7	0.38 L	1.7 J
CADMIUM	6.7 J	7.7 J	0.61 L	3.6 J	4.6 J
CHROMIUM	171 J	167 L	29.6	42.7 L	133 J
COBALT	NA	NA	NA	NA	NA
COPPER	145 J	129 L	21 L	17.5 L	156 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	141 J	131	14.3	32.2	120 J
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.52 J	0.54	0.039 J	0.15	0.45 J
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	43 J	39.7 L	21.2 L	8.7 L	37.7 J
SELENIUM	2.1 J	1.8 L	0.99 L	0.48 L	1.8 J
SILVER	2.3 J	3.2 L	0.091 J	0.46 L	1.6 J
THALLIUM	0.27 J	0.28 K	0.19 K	0.08 K	0.24 J
VANADIUM	NA	NA	NA	NA	NA
ZINC	415 J	375 L	69.7	80.9 L	350 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	31300	NA	50300 J
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	0.41 U	NA	44.6 J
CADMIUM	NA	NA	0.0035	NA	0.033 J
CHROMIUM	NA	NA	0.064	NA	1 J
COPPER	NA	NA	0.12	NA	0.48 J
LEAD	NA	NA	0.037	NA	0.44 J
NICKEL	NA	NA	0.077	NA	0.2 J
SILVER	NA	NA	0.00035 U	NA	0.0011 J
ZINC	NA	NA	0.43	NA	3.7 J

LOCATION	SD-102	SD-103	SD-104	SD-104	SD-104
SAMPLE ID	SD-102-SS	SD-103-SS	SD-104-SS	SD-104-SS-AVG	SD-104-SS-D
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-102	SD-103	SD-104	SD-104	SD-104
SAMPLE ID	SD-102-SS	SD-103-SS	SD-104-SS	SD-104-SS-AVG	SD-104-SS-D
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

LOCATION	SD-102	SD-103	SD-104	SD-104	SD-104
SAMPLE ID	SD-102-SS	SD-103-SS	SD-104-SS	SD-104-SS-AVG	SD-104-SS-D
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	11 UJ	2.9 U	1.8 U	6.95 J	13 J
ACENAPHTHYLENE	14 UJ	3.5 U	15 J	15.5 J	16 J
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	29 J	5.6 J	26	31.5 J	37 J
AZOBENZENE	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	163	39.9	123	170	217
BAP EQUIVALENT-POSITIVE RESULTS	157	38.2	123	170	217
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	85 J	25 J	60	69	78
BENZO(A)PYRENE	99 J	24 J	56	69	82
BENZO(B)FLUORANTHENE	200 J	41	130	120	110
BENZO(G,H,I)PERYLENE	240 J	66	71 J	110.5 J	150 J
BENZO(K)FLUORANTHENE	24 UJ	16 J	3.8 U	6.9 U	10 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	120 J	26 J	71	85.5	100
DIBENZO(A,H)ANTHRACENE	13 UJ	3.4 U	41 J	70.5 J	100 J
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	170 J	37	130	140	150
FLUORENE	16 UJ	4 U	21	28.5 J	36 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	290 J	74	72 J	116 J	160 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	10 UJ	2.6 U	42	56.5	71
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	66 J	9.7 J	79	104.5	130
PHENOL	NA	NA	NA	NA	NA
PYRENE	170 J	32	110	140	170
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	1469	356.3	924	1163.95	1403

LOCATION	SD-102	SD-103	SD-104	SD-104	SD-104
SAMPLE ID	SD-102-SS	SD-103-SS	SD-104-SS	SD-104-SS-AVG	SD-104-SS-D
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6
PCBS (UG/KG)					
AROCLOR-1016	4.4 UJ	2.3 U	3.5 U	3.6 U	3.7 U
AROCLOR-1221	5.7 UJ	2.9 U	4.5 U	4.6 U	4.7 U
AROCLOR-1232	5.1 UJ	2.6 U	4.1 U	4.15 U	4.2 U
AROCLOR-1242	4.8 UJ	2.5 U	3.9 U	3.95 U	4 U
AROCLOR-1248	2.8 UJ	1.4 U	2.2 U	2.25 U	2.3 U
AROCLOR-1254	4.2 UJ	2.2 U	3.4 U	3.45 U	3.5 U
AROCLOR-1260	200 J	2.2 U	30	25 J	20 J
TOTAL AROCLOR	200	0 U	30	25	20
METALS (MG/KG)					
ANTIMONY	0.83 J	0.22 J	0.5 J	0.545 J	0.59 J
ARSENIC	10.2 J	4.2	9	9.35	9.7
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.8 J	0.78 J	1.8 J	1.9 J	2 J
CADMIUM	4.6 J	0.47	8.8	7.95	7.1
CHROMIUM	136 J	22	236 K	233 K	230 K
COBALT	NA	NA	NA	NA	NA
COPPER	151 J	16.5	60.4	62.4	64.4
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA
LEAD	123 J	13.1	117	123.5	130
MANGANESE	NA	NA	NA	NA	NA
MERCURY	0.5 J	0.039	0.5	0.48	0.46
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	37.3 J	12.8	34.4	35.9	37.4
SELENIUM	1.8 J	0.64	1.9	2.05	2.2
SILVER	1.7 J	0.064 J	2 J	1.85 J	1.7 J
THALLIUM	0.26 J	0.12	0.24	0.25	0.26
VANADIUM	NA	NA	NA	NA	NA
ZINC	337 J	52.4	238	243	248
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

LOCATION	SD-105	SD-106
SAMPLE ID	SD-105-SS	SD-106-SS
SAMPLE DATE	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL
MATRIX	SD	SD
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	SS	SS
TOP DEPTH	0	0
BOTTOM DEPTH	6	6
VOLATILES (UG/KG)		
1,1,1,2-TETRACHLOROETHANE	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA
1,1-DICHLOROETHANE	NA	NA
1,1-DICHLOROETHENE	NA	NA
1,1-DICHLOROPROPENE	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA
1,2-DIBROMOETHANE	NA	NA
1,2-DICHLOROBENZENE	NA	NA
1,2-DICHLOROETHANE	NA	NA
1,2-DICHLOROPROPANE	NA	NA
1,3-DICHLOROBENZENE	NA	NA
1,3-DICHLOROPROPANE	NA	NA
1,4-DICHLOROBENZENE	NA	NA
2,2-DICHLOROPROPANE	NA	NA
2-BUTANONE	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA
2-CHLOROTOLUENE	NA	NA
2-HEXANONE	NA	NA
4-CHLOROTOLUENE	NA	NA
4-ISOPROPYLTOLUENE	NA	NA
4-METHYL-2-PENTANONE	NA	NA
ACETONE	NA	NA
BENZENE	NA	NA
BROMOBENZENE	NA	NA
BROMOCHLOROMETHANE	NA	NA
BROMODICHLOROMETHANE	NA	NA
BROMOFORM	NA	NA
BROMOMETHANE	NA	NA
CARBON DISULFIDE	NA	NA
CARBON TETRACHLORIDE	NA	NA
CHLOROBENZENE	NA	NA
CHLORODIBROMOMETHANE	NA	NA
CHLOROETHANE	NA	NA
CHLOROFORM	NA	NA
CHLOROMETHANE	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA
CYCLOHEXANE	NA	NA
DIBROMOMETHANE	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA
DIISOPROPYL ETHER	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA
ETHYLBENZENE	NA	NA

LOCATION	SD-105	SD-106
SAMPLE ID	SD-105-SS	SD-106-SS
SAMPLE DATE	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL
MATRIX	SD	SD
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	SS	SS
TOP DEPTH	0	0
BOTTOM DEPTH	6	6
HEXACHLOROBUTADIENE	NA	NA
ISOPROPYLBENZENE	NA	NA
M+P-XYLENES	NA	NA
METHYL ACETATE	NA	NA
METHYL CYCLOHEXANE	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA
METHYLENE CHLORIDE	NA	NA
NAPHTHALENE	NA	NA
N-BUTYLBENZENE	NA	NA
N-PROPYLBENZENE	NA	NA
O-XYLENE	NA	NA
SEC-BUTYLBENZENE	NA	NA
STYRENE	NA	NA
TERT-AMYL METHYL ETHER	NA	NA
TERT-BUTYLBENZENE	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA
TETRACHLOROETHENE	NA	NA
TOLUENE	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA
TOTAL XYLENES	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA
TRICHLOROETHENE	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA
VINYL ACETATE	NA	NA
VINYL CHLORIDE	NA	NA
SEMIVOLATILES (UG/KG)		
1,2,4-TRICHLOROBENZENE	NA	NA
1,2-DICHLOROBENZENE	NA	NA
1,2-DIPHENYLHYDRAZINE	NA	NA
1,3-DICHLOROBENZENE	NA	NA
1,4-DICHLOROBENZENE	NA	NA
1,4-DIOXANE	NA	NA
1-METHYLNAPHTHALENE	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA
2,4-DICHLOROPHENOL	NA	NA
2,4-DIMETHYLPHENOL	NA	NA
2,4-DINITROPHENOL	NA	NA
2,4-DINITROTOLUENE	NA	NA
2,6-DINITROTOLUENE	NA	NA
2-CHLORONAPHTHALENE	NA	NA
2-CHLOROPHENOL	NA	NA
2-METHYLNAPHTHALENE	NA	NA
2-METHYLPHENOL	NA	NA
2-NITROANILINE	NA	NA
2-NITROPHENOL	NA	NA
3&4-METHYLPHENOL	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA
3-NITROANILINE	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA
4-CHLOROANILINE	NA	NA

LOCATION	SD-105	SD-106
SAMPLE ID	SD-105-SS	SD-106-SS
SAMPLE DATE	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL
MATRIX	SD	SD
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	SS	SS
TOP DEPTH	0	0
BOTTOM DEPTH	6	6
4-CHLOROPHENYL PHENYL ETHER	NA	NA
4-METHYLPHENOL	NA	NA
4-NITROANILINE	NA	NA
4-NITROPHENOL	NA	NA
ACENAPHTHENE	16 J	9.5 U
ACENAPHTHYLENE	21 J	17 J
ANILINE	NA	NA
ANTHRACENE	51 J	29 J
AZOBENZENE	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	342	46.2
BAP EQUIVALENT-POSITIVE RESULTS	342	35.7
BENZIDINE	NA	NA
BENZO(A)ANTHRACENE	150 J	57 J
BENZO(A)PYRENE	170 J	9.9 U
BENZO(B)FLUORANTHENE	350 J	69 J
BENZO(G,H,I)PERYLENE	220 J	9.8 U
BENZO(K)FLUORANTHENE	9.2 UJ	20 U
BENZOIC ACID	NA	NA
BENZYL ALCOHOL	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA
CARBAZOLE	NA	NA
CHRYSENE	200 J	52 J
DIBENZO(A,H)ANTHRACENE	100 J	11 U
DIBENZOFURAN	NA	NA
DIETHYL PHTHALATE	NA	NA
DIMETHYL PHTHALATE	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA
FLUORANTHENE	230 J	110
FLUORENE	27 J	13 U
HEXACHLOROBENZENE	NA	NA
HEXACHLOROBUTADIENE	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA
HEXACHLOROETHANE	NA	NA
INDENO(1,2,3-CD)PYRENE	220 J	230
ISOPHORONE	NA	NA
NAPHTHALENE	42 J	59 J
NITROBENZENE	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA
PENTACHLOROPHENOL	NA	NA
PHENANTHRENE	120 J	110
PHENOL	NA	NA
PYRENE	350 J	90 J
PYRIDINE	NA	NA
TOTAL PAHS	2267	823

Table C-1
Summary of Analytical Results for Surface Sediment, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-105	SD-106
SAMPLE ID	SD-105-SS	SD-106-SS
SAMPLE DATE	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL
MATRIX	SD	SD
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	SS	SS
TOP DEPTH	0	0
BOTTOM DEPTH	6	6
PCBS (UG/KG)		
AROCLOR-1016	4.2 UJ	3.6 U
AROCLOR-1221	5.4 UJ	4.6 U
AROCLOR-1232	4.8 UJ	4.2 U
AROCLOR-1242	4.6 UJ	4 U
AROCLOR-1248	2.7 UJ	2.3 U
AROCLOR-1254	4 UJ	3.5 U
AROCLOR-1260	170 J	3.5 U
TOTAL AROCLOR	170	0 U
METALS (MG/KG)		
ANTIMONY	0.64 J	0.28 J
ARSENIC	37.2 J	9.3 L
BARIUM	NA	NA
BERYLLIUM	1.7 J	1.9 L
CADMIUM	3 J	0.83 J
CHROMIUM	150 J	44.6 L
COBALT	NA	NA
COPPER	183 J	41.1 L
HEXAVALENT CHROMIUM	NA	NA
IRON	NA	NA
LEAD	114 J	52.8
MANGANESE	NA	NA
MERCURY	0.41 J	0.17
MOLYBDENUM	NA	NA
NICKEL	37.4 J	31.1 L
SELENIUM	1.8 J	1.7 L
SILVER	1.3 J	0.22 L
THALLIUM	0.23 J	0.29 K
VANADIUM	NA	NA
ZINC	334 J	122 L
METALS (UG/KG)		
DIBUTYLTIN	NA	NA
MONOBUTYLTIN	NA	NA
TETRABUTYLTIN	NA	NA
TRIBUTYLTIN	NA	NA
MISCELLANEOUS PARAMETERS (%)		
PERCENT SOLIDS	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)		
TOTAL ORGANIC CARBON	NA	NA
AVS/SEM (UMOLES/G)		
ACID VOLATILE SULFIDE	NA	NA
CADMIUM	NA	NA
CHROMIUM	NA	NA
COPPER	NA	NA
LEAD	NA	NA
NICKEL	NA	NA
SILVER	NA	NA
ZINC	NA	NA

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
R = Rejected
SD = Sediment
SS = Surface sediment
U = Non-detected

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-78	SD-13
SAMPLE ID	BOWLEYS_QUARTERS-01	MIDDLE_RIVER_DOWNSTREAM-01	MARSHY_POINT-01	SD-78-01	SD-13-01
SAMPLE DATE	20100821	20100820	20100821	20081117	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	BACKGROUND	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	10	12
BOTTOM DEPTH	12	12	12	14	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	15 UL
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	15 UL
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	15 UL
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	15 UL
1,1-DICHLOROETHANE	NA	NA	NA	NA	15 UL
1,1-DICHLOROETHENE	NA	NA	NA	NA	15 UL
1,1-DICHLOROPROPENE	NA	NA	NA	NA	15 UL
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	15 UL
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	15 UL
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	15 UL
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	15 UL
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	15 UL
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	15 UL
1,2-DIBROMOETHANE	NA	NA	NA	NA	15 UL
1,2-DICHLOROBENZENE	NA	NA	NA	NA	15 UL
1,2-DICHLOROETHANE	NA	NA	NA	NA	15 UL
1,2-DICHLOROPROPANE	NA	NA	NA	NA	15 UL
1,3-DICHLOROBENZENE	NA	NA	NA	NA	15 UL
1,3-DICHLOROPROPANE	NA	NA	NA	NA	15 UL
1,4-DICHLOROBENZENE	NA	NA	NA	NA	15 UL
2,2-DICHLOROPROPANE	NA	NA	NA	NA	15 UL
2-BUTANONE	NA	NA	NA	NA	76 UR
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	15 UL
2-CHLOROTOLUENE	NA	NA	NA	NA	15 UL
2-HEXANONE	NA	NA	NA	NA	76 UL
4-CHLOROTOLUENE	NA	NA	NA	NA	15 UL
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	15 UL
4-METHYL-2-PENTANONE	NA	NA	NA	NA	76 UL
ACETONE	NA	NA	NA	NA	76 B
BENZENE	NA	NA	NA	NA	15 UL
BROMOBENZENE	NA	NA	NA	NA	15 UL
BROMOCHLOROMETHANE	NA	NA	NA	NA	15 UL
BROMODICHLOROMETHANE	NA	NA	NA	NA	15 UL
BROMOFORM	NA	NA	NA	NA	15 UL
BROMOMETHANE	NA	NA	NA	NA	30 UL
CARBON DISULFIDE	NA	NA	NA	NA	15 UL
CARBON TETRACHLORIDE	NA	NA	NA	NA	15 UL
CHLOROBENZENE	NA	NA	NA	NA	15 UL
CHLORODIBROMOMETHANE	NA	NA	NA	NA	15 UL
CHLOROETHANE	NA	NA	NA	NA	30 UL
CHLOROFORM	NA	NA	NA	NA	15 UL
CHLOROMETHANE	NA	NA	NA	NA	30 UL
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	15 UL
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	15 UL
DIBROMOMETHANE	NA	NA	NA	NA	15 UL
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	30 UL
DIISOPROPYL ETHER	NA	NA	NA	NA	15 UL
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	15 UL
ETHYLBENZENE	NA	NA	NA	NA	15 UL
HEXACHLOROBUTADIENE	NA	NA	NA	NA	15 UL
ISOPROPYLBENZENE	NA	NA	NA	NA	3 J
M+P-XYLENES	NA	NA	NA	NA	30 UL
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	30 UL
METHYLENE CHLORIDE	NA	NA	NA	NA	15 B

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-78	SD-13
SAMPLE ID	BOWLEYS_QUARTERS-01	MIDDLE_RIVER_DOWNSTREAM-01	MARSHY_POINT-01	SD-78-01	SD-13-01
SAMPLE DATE	20100821	20100820	20100821	20081117	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	BACKGROUND	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	10	12
BOTTOM DEPTH	12	12	12	14	12
NAPHTHALENE	NA	NA	NA	NA	15 UL
N-BUTYLBENZENE	NA	NA	NA	NA	15 UL
N-PROPYLBENZENE	NA	NA	NA	NA	15 UL
O-XYLENE	NA	NA	NA	NA	15 UL
SEC-BUTYLBENZENE	NA	NA	NA	NA	20 L
STYRENE	NA	NA	NA	NA	15 UL
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	15 UL
TERT-BUTYLBENZENE	NA	NA	NA	NA	15 UL
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	30 UR
TETRACHLOROETHENE	NA	NA	NA	NA	15 UL
TOLUENE	NA	NA	NA	NA	15 UL
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	30 UL
TOTAL XYLENES	NA	NA	NA	NA	46 UL
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	15 UL
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	15 UL
TRICHLOROETHENE	NA	NA	NA	NA	15 UL
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	30 UL
VINYL ACETATE	NA	NA	NA	NA	15 UL
VINYL CHLORIDE	NA	NA	NA	NA	30 UL
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	1000 U
1,2-DICHLOROBENZENE	NA	NA	NA	NA	260 J
1,3-DICHLOROBENZENE	NA	NA	NA	NA	1000 U
1,4-DICHLOROBENZENE	NA	NA	NA	NA	180 J
1,4-DIOXANE	NA	NA	NA	NA	1000 U
1-METHYLNAPHTHALENE	NA	NA	NA	1800 U	1000 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	1000 U
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	2500 U
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	1000 U
2,4-DICHLOROPHENOL	NA	NA	NA	NA	1000 U
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	1000 U
2,4-DINITROPHENOL	NA	NA	NA	NA	2500 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	1000 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	1000 U
2-CHLORONAPHTHALENE	NA	NA	NA	NA	1000 U
2-CHLOROPHENOL	NA	NA	NA	NA	1000 U
2-METHYLNAPHTHALENE	NA	NA	NA	1800 U	340 J
2-METHYLPHENOL	NA	NA	NA	NA	1000 U
2-NITROANILINE	NA	NA	NA	NA	2500 U
2-NITROPHENOL	NA	NA	NA	NA	1000 U
3&4-METHYLPHENOL	NA	NA	NA	NA	1000 U
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	1000 UJ
3-NITROANILINE	NA	NA	NA	NA	2500 U
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	2500 UJ
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	1000 UJ
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	1000 U
4-CHLOROANILINE	NA	NA	NA	NA	1000 U
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	1000 U
4-NITROANILINE	NA	NA	NA	NA	2500 U
4-NITROPHENOL	NA	NA	NA	NA	2500 U
ACENAPHTHENE	5.1 U	11 J	4.6 U	1800 U	750 J
ACENAPHTHYLENE	29 J	17 J	5.5 U	1800 U	1000 U
ANILINE	NA	NA	NA	NA	1000 U
ANTHRACENE	47 J	26 J	15 J	1800 U	1600 J
AZOBENZENE	NA	NA	NA	NA	1000 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-78	SD-13
SAMPLE ID	BOWLEYS_QUARTERS-01	MIDDLE_RIVER_DOWNSTREAM-01	MARSHY_POINT-01	SD-78-01	SD-13-01
SAMPLE DATE	20100821	20100820	20100821	20081117	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	BACKGROUND	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	10	12
BOTTOM DEPTH	12	12	12	14	12
BAP EQUIVALENT-1/2 NON-DETECTS	106	73.1	7.8	1978	10464
BAP EQUIVALENT-POSITIVE RESULTS	103	71.3	2.0	87.7	10464
BENZIDINE	NA	NA	NA	NA	2500 UJ
BENZO(A)ANTHRACENE	70	54	20 J	1800 U	7600 J
BENZO(A)PYRENE	74	47	4.8 U	1800 U	7300 J
BENZO(B)FLUORANTHENE	110	89	7.6 U	580 J	10000 J
BENZO(G,H,I)PERYLENE	110	92	4.8 U	1800 U	4800 J
BENZO(K)FLUORANTHENE	11 U	6.8 U	9.7 U	500 J	4500 J
BENZOIC ACID	NA	NA	NA	NA	2500 U
BENZYL ALCOHOL	NA	NA	NA	NA	1000 UJ
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	1000 U
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	1000 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	3400 J
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	830 J
CARBAZOLE	NA	NA	NA	NA	1000 J
CHRYSENE	63	56	21 J	710 J	9300 J
DIBENZO(A,H)ANTHRACENE	5.9 U	3.7 U	5.4 U	1800 U	790 J
DIBENZOFURAN	NA	NA	NA	NA	400 J
DIETHYL PHTHALATE	NA	NA	NA	NA	1000 U
DIMETHYL PHTHALATE	NA	NA	NA	NA	1000 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	1000 UJ
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	1000 UJ
FLUORANTHENE	200	92	61	1200 J	11000 J
FLUORENE	51 J	21 J	13 J	1800 U	570 J
HEXACHLOROBENZENE	NA	NA	NA	NA	1000 UJ
HEXACHLOROBUTADIENE	NA	NA	NA	NA	1000 U
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	1000 U
HEXACHLOROETHANE	NA	NA	NA	NA	1000 U
INDENO(1,2,3-CD)PYRENE	110	99	5 U	240 J	5600 J
ISOPHORONE	NA	NA	NA	NA	1000 U
NAPHTHALENE	110	48	42 J	1800 U	550 J
NITROBENZENE	NA	NA	NA	NA	1000 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	1000 U
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	1000 U
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	1000 UJ
PENTACHLOROPHENOL	NA	NA	NA	NA	2500 UJ
PHENANTHRENE	140	71	57	630 J	7900 J
PHENOL	NA	NA	NA	NA	1000 U
PYRENE	130	96	37 J	1200 J	24000 J
PYRIDINE	NA	NA	NA	NA	1000 U
TOTAL PAHS	1244	819	266	5060	96600

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-78	SD-13
SAMPLE ID	BOWLEYS_QUARTERS-01	MIDDLE_RIVER_DOWNSTREAM-01	MARSHY_POINT-01	SD-78-01	SD-13-01
SAMPLE DATE	20100821	20100820	20100821	20081117	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	BACKGROUND	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	10	12
BOTTOM DEPTH	12	12	12	14	12
PCBS (UG/KG)					
AROCLOR-1016	3.9 U	4.1 U	3.6 U	22 U	53 U
AROCLOR-1221	5 U	5.3 U	4.6 U	22 U	53 U
AROCLOR-1232	4.5 U	4.8 U	4.1 U	22 U	53 U
AROCLOR-1242	4.3 U	4.5 U	3.9 U	22 U	53 U
AROCLOR-1248	2.5 U	2.6 U	2.3 U	22 U	53 U
AROCLOR-1254	3.8 U	4 U	3.4 U	22 U	53 U
AROCLOR-1260	3.8 U	65	3.4 U	22 U	2500
TOTAL AROCLOR	0 U	65	0 U	0 U	2500
METALS (MG/KG)					
ANTIMONY	0.32	1.7 L	0.3	0.13 U	2
ARSENIC	9.2	11 L	10.5	2.1	6.9
BARIUM	NA	NA	NA	58.9 J	68.9
BERYLLIUM	1.7	1.9	2	1 J	1.8
CADMIUM	0.91	7.7 L	0.67	0.44	13.6
CHROMIUM	33.2	246	37.6	66.8 J	227
COBALT	NA	NA	NA	7.4	14.5
COPPER	54	122 L	39.9	15.7 J	107
HEXAVALENT CHROMIUM	NA	NA	NA	NA	1.5 UL
LEAD	75.1	201	45.2	95.5 J	242
MERCURY	0.29	1.1	0.26	0.035 B	0.73 L
MOLYBDENUM	NA	NA	NA	0.51	1.9
NICKEL	42.3	50.3 L	40.4	42.5	49.6
SELENIUM	2.5	2.3 L	2.4	0.63	0.79 UL
SILVER	0.24	2.7	0.17	2.5	16.2
THALLIUM	0.33	0.29	0.39	0.23 U	1.36 U
VANADIUM	NA	NA	NA	14.5 J	82.2
ZINC	209	417 L	167	86	423
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	75	32
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	41900	NA	8700	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-14	SD-16	SD-19	SD-27	SD-28
SAMPLE ID	SD-14-01	SD-16-01	SD-19-01	SD-27-01	SD-28-01
SAMPLE DATE	20051020	20051020	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,1,1-TRICHLOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,1,2,2-TETRACHLOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,1-DICHLOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,1-DICHLOROETHENE	54 U	16 U	15 U	14 UL	13 U
1,1-DICHLOROPROPENE	54 U	16 U	15 U	14 UL	13 U
1,2,3-TRICHLOROBENZENE	54 U	16 U	15 U	14 UL	13 U
1,2,3-TRICHLOROPROPANE	54 U	16 U	15 U	14 UL	13 U
1,2,3-TRIMETHYLBENZENE	54 U	16 U	15 U	14 UL	13 U
1,2,4-TRICHLOROBENZENE	54 U	16 U	15 U	14 UL	13 U
1,2,4-TRIMETHYLBENZENE	54 U	16 U	15 U	14 UL	13 U
1,2-DIBROMO-3-CHLOROPROPANE	54 U	16 U	15 U	14 UL	13 U
1,2-DIBROMOETHANE	54 U	16 U	15 U	14 UL	13 U
1,2-DICHLOROBENZENE	54 U	16 U	15 U	14 UL	0.9 B
1,2-DICHLOROETHANE	54 U	16 U	15 U	14 UL	13 U
1,2-DICHLOROPROPANE	54 U	16 U	15 U	14 UL	13 U
1,3-DICHLOROBENZENE	54 U	16 U	15 U	14 UL	13 U
1,3-DICHLOROPROPANE	54 U	16 U	15 U	14 UL	13 U
1,4-DICHLOROBENZENE	54 U	16 U	15 U	14 UL	13 U
2,2-DICHLOROPROPANE	54 U	16 U	15 U	14 UL	13 U
2-BUTANONE	270 UR	18 J	37 J	70 UR	27 J
2-CHLOROETHYL VINYL ETHER	54 U	16 U	15 U	14 UL	13 U
2-CHLOROTOLUENE	54 U	16 U	15 U	14 UL	13 U
2-HEXANONE	270 U	80 U	74 U	70 UL	65 U
4-CHLOROTOLUENE	54 U	16 U	15 U	14 UL	13 U
4-ISOPROPYLTOLUENE	54 U	16 U	15 U	14 UL	13 U
4-METHYL-2-PENTANONE	270 U	80 U	74 U	70 UL	65 U
ACETONE	270 B	100 B	220	50 B	130 B
BENZENE	54 U	16 U	15 U	14 UL	13 U
BROMOBENZENE	54 U	16 U	15 U	14 UL	13 U
BROMOCHLOROMETHANE	54 U	16 U	15 U	14 UL	13 U
BROMODICHLOROMETHANE	54 U	16 U	15 U	14 UL	13 U
BROMOFORM	54 U	16 U	15 U	14 UL	13 U
BROMOMETHANE	110 U	32 U	30 U	28 UL	26 U
CARBON DISULFIDE	19 J	7 J	6 J	14 UL	6 J
CARBON TETRACHLORIDE	54 U	16 U	15 U	14 UL	13 U
CHLOROBENZENE	54 U	16 U	15 U	14 UL	13 U
CHLORODIBROMOMETHANE	54 U	16 U	15 U	14 UL	13 U
CHLOROETHANE	110 U	32 U	30 U	28 UL	26 U
CHLOROFORM	54 U	16 U	15 U	14 UL	13 U
CHLOROMETHANE	110 U	32 U	30 U	28 UL	26 U
CIS-1,2-DICHLOROETHENE	54 U	16 U	15 U	14 UL	13 U
CIS-1,3-DICHLOROPROPENE	54 U	16 U	15 U	14 UL	13 U
DIBROMOMETHANE	54 U	16 U	15 U	14 UL	13 U
DICHLORODIFLUOROMETHANE	110 U	32 U	30 U	28 UL	26 U
DIISOPROPYL ETHER	54 U	16 U	15 U	14 UL	13 U
ETHYL TERT-BUTYL ETHER	54 U	16 U	15 U	14 UL	13 U
ETHYLBENZENE	54 U	16 U	15 U	14 UL	13 U
HEXACHLOROBUTADIENE	54 U	16 U	15 U	14 UL	13 U
ISOPROPYLBENZENE	54 U	16 U	10 J	14 UL	13 U
M+P-XYLENES	110 U	32 U	30 U	28 UL	26 U
METHYL TERT-BUTYL ETHER	110 U	4 J	30 U	28 UL	26 U
METHYLENE CHLORIDE	54 B	16 B	17 B	14 UL	9 B

LOCATION	SD-14	SD-16	SD-19	SD-27	SD-28
SAMPLE ID	SD-14-01	SD-16-01	SD-19-01	SD-27-01	SD-28-01
SAMPLE DATE	20051020	20051020	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	54 U	16 U	15 U	14 UL	13 U
N-BUTYLBENZENE	54 U	16 U	15 U	14 UL	13 U
N-PROPYLBENZENE	54 U	16 U	15 U	14 UL	13 U
O-XYLENE	54 U	16 U	15 U	14 UL	13 U
SEC-BUTYLBENZENE	54 U	16 U	33	14 UL	13 U
STYRENE	54 U	16 U	15 U	14 UL	13 U
TERT-AMYL METHYL ETHER	54 U	16 U	15 U	14 UL	13 U
TERT-BUTYLBENZENE	54 U	16 U	2 J	14 UL	13 U
TERTIARY-BUTYL ALCOHOL	110 UR	32 UR	30 UR	28 UR	26 UR
TETRACHLOROETHENE	54 U	16 U	15 U	14 UL	13 U
TOLUENE	54 U	16 U	15 U	14 UL	13 U
TOTAL 1,2-DICHLOROETHENE	110 U	32 U	30 U	28 UL	26 U
TOTAL XYLENES	160 U	48 U	45 U	42 UL	39 U
TRANS-1,2-DICHLOROETHENE	54 U	16 U	15 U	14 UL	13 U
TRANS-1,3-DICHLOROPROPENE	54 U	16 U	15 U	14 UL	13 U
TRICHLOROETHENE	54 U	16 U	15 U	14 UL	13 U
TRICHLOROFLUOROMETHANE	110 U	32 U	30 U	28 UL	26 U
VINYL ACETATE	54 U	16 U	15 U	14 UL	13 U
VINYL CHLORIDE	110 U	32 U	30 U	28 UL	26 U
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	710 U	1000 U	1000 U	940 U	850 U
1,2-DICHLOROBENZENE	710 U	1000 U	1000 U	940 U	850 U
1,3-DICHLOROBENZENE	710 U	1000 U	1000 U	940 U	850 U
1,4-DICHLOROBENZENE	710 U	1000 U	1000 U	940 U	100 J
1,4-DIOXANE	710 U	1000 U	1000 U	940 U	850 U
1-METHYLNAPHTHALENE	710 U	1000 U	1000 U	940 U	850 U
2,2'-OXYBIS(1-CHLOROPROPANE)	710 U	1000 U	1000 U	940 U	850 U
2,4,5-TRICHLOROPHENOL	1800 U	2600 U	2600 U	2300 U	2100 U
2,4,6-TRICHLOROPHENOL	710 U	1000 U	1000 U	940 U	850 U
2,4-DICHLOROPHENOL	710 U	1000 U	1000 U	940 U	850 U
2,4-DIMETHYLPHENOL	710 U	1000 U	1000 U	940 U	850 U
2,4-DINITROPHENOL	1800 U	2600 U	2600 U	2300 U	2100 U
2,4-DINITROTOLUENE	710 U	1000 U	1000 U	940 U	850 U
2,6-DINITROTOLUENE	710 U	1000 U	1000 U	940 U	850 U
2-CHLORONAPHTHALENE	710 U	1000 U	1000 U	940 U	850 U
2-CHLOROPHENOL	710 U	1000 U	1000 U	940 U	850 U
2-METHYLNAPHTHALENE	710 U	220 J	1000 U	940 U	850 U
2-METHYLPHENOL	710 U	1000 U	1000 U	940 U	850 U
2-NITROANILINE	1800 U	2600 U	2600 U	2300 U	2100 U
2-NITROPHENOL	710 U	1000 U	1000 U	940 U	850 U
3&4-METHYLPHENOL	710 U	1000 U	1000 U	940 U	850 U
3,3'-DICHLOROBENZIDINE	710 U	1000 UJ	1000 U	940 U	850 U
3-NITROANILINE	1800 U	2600 U	2600 U	2300 U	2100 U
4,6-DINITRO-2-METHYLPHENOL	1800 U	2600 UJ	2600 U	2300 U	2100 U
4-BROMOPHENYL PHENYL ETHER	710 U	1000 UJ	1000 U	940 U	850 U
4-CHLORO-3-METHYLPHENOL	710 U	1000 U	1000 U	940 U	850 U
4-CHLOROANILINE	710 U	1000 U	1000 U	940 U	850 U
4-CHLOROPHENYL PHENYL ETHER	710 U	1000 U	1000 U	940 U	850 U
4-NITROANILINE	1800 U	2600 U	2600 U	2300 U	2100 U
4-NITROPHENOL	1800 U	2600 U	2600 U	2300 U	2100 U
ACENAPHTHENE	710 U	480 J	190 J	940 U	710 J
ACENAPHTHYLENE	710 U	1000 U	1000 U	940 U	850 U
ANILINE	710 U	1000 U	1000 U	940 U	850 U
ANTHRACENE	710 U	820 J	640 J	940 U	1400
AZOBENZENE	710 U	1000 U	1000 U	940 U	850 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-14	SD-16	SD-19	SD-27	SD-28
SAMPLE ID	SD-14-01	SD-16-01	SD-19-01	SD-27-01	SD-28-01
SAMPLE DATE	20051020	20051020	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	710 U	4399	3536	1351	6280
BAP EQUIVALENT-POSITIVE RESULTS	710 U	3899	3536	881	6280
BENZIDINE	1800 U	2600 UJ	2600 U	2300 U	2100 U
BENZO(A)ANTHRACENE	710 U	2600 J	2300	580 J	5100
BENZO(A)PYRENE	710 U	3000 J	2300 J	670 J	4200
BENZO(B)FLUORANTHENE	710 U	4600 J	3100 J	890 J	5400
BENZO(G,H,I)PERYLENE	710 U	1800 J	1800 J	590 J	2300
BENZO(K)FLUORANTHENE	710 U	1600 J	1300 J	360 J	2500
BENZOIC ACID	1800 U	2600 U	2600 U	2300 U	2100 U
BENZYL ALCOHOL	710 UJ	1000 UJ	1000 U	940 U	850 U
BIS(2-CHLOROETHOXY)METHANE	710 U	1000 U	1000 U	940 U	850 U
BIS(2-CHLOROETHYL)ETHER	710 U	1000 U	1000 U	940 U	850 U
BIS(2-ETHYLHEXYL)PHTHALATE	710 U	1100 J	360 J	520 J	850 U
BUTYL BENZYL PHTHALATE	710 U	1000 UJ	1000 U	940 U	850 U
CARBAZOLE	710 U	310 J	310 J	940 U	760 J
CHRYSENE	710 U	2900 J	2800	750 J	5200
DIBENZO(A,H)ANTHRACENE	710 U	1000 UJ	480 J	940 U	700 J
DIBENZOFURAN	710 U	1000 U	1000 U	940 U	270 J
DIETHYL PHTHALATE	710 U	1000 U	1000 U	940 U	850 U
DIMETHYL PHTHALATE	710 U	1000 U	1000 U	940 U	850 U
DI-N-BUTYL PHTHALATE	710 U	1000 UJ	1000 U	940 U	850 U
DI-N-OCTYL PHTHALATE	710 U	1000 UJ	1000 UJ	940 U	850 U
FLUORANTHENE	710 U	3500 J	4400	1100	9300
FLUORENE	710 U	330 J	290 J	940 U	550 J
HEXACHLOROBENZENE	710 U	1000 UJ	1000 U	940 U	850 U
HEXACHLOROBUTADIENE	710 U	1000 U	1000 U	940 U	850 U
HEXACHLOROCYCLOPENTADIENE	710 U	1000 U	1000 U	940 U	850 U
HEXACHLOROETHANE	710 U	1000 U	1000 U	940 U	850 U
INDENO(1,2,3-CD)PYRENE	710 U	1600 J	2000 J	600 J	3000
ISOPHORONE	710 U	1000 U	1000 U	940 U	850 U
NAPHTHALENE	710 U	360 J	300 J	940 U	240 J
NITROBENZENE	710 U	1000 U	1000 U	940 U	850 U
N-NITROSODIMETHYLAMINE	710 U	1000 U	1000 U	940 U	850 U
N-NITROSO-DI-N-PROPYLAMINE	710 U	1000 U	1000 U	940 U	850 U
N-NITROSODIPHENYLAMINE	710 U	1000 UJ	1000 U	940 U	850 U
PENTACHLOROPHENOL	1800 U	2600 UJ	2600 U	2300 U	2100 U
PHENANTHRENE	710 U	3200 J	2800	580 J	4900
PHENOL	710 U	1000 U	1000 U	940 U	850 U
PYRENE	710 U	11000 J	6000	1600	10000
PYRIDINE	710 U	1000 U	1000 U	940 U	850 U
TOTAL PAHS	0 U	38010	30700	7720	55500

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-14	SD-16	SD-19	SD-27	SD-28
SAMPLE ID	SD-14-01	SD-16-01	SD-19-01	SD-27-01	SD-28-01
SAMPLE DATE	20051020	20051020	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	37 U	54 U	54 U	48 U	44 U
AROCLOR-1221	37 U	54 U	54 U	48 U	44 U
AROCLOR-1232	37 U	54 U	54 U	48 U	44 U
AROCLOR-1242	37 U	54 U	54 U	48 U	44 U
AROCLOR-1248	37 U	54 U	54 U	48 U	44 U
AROCLOR-1254	37 U	54 U	54 U	48 U	44 U
AROCLOR-1260	37 U	1400	330 J	670 J	610 J
TOTAL AROCLOR	0 U	1400	330	670	610
METALS (MG/KG)					
ANTIMONY	0.72 U	1.5	2	1.1 L	0.57 UL
ARSENIC	3.9	6.6	3	7.8	5
BARIUM	27.9	71.9	85.1	61.6	38.1
BERYLLIUM	1.9	2.2	1.8	2.2	1.4
CADMIUM	0.07	26.8	34.4	27.9	8.4
CHROMIUM	28	443	756	503 K	140 K
COBALT	11.3	17.8	13.2	22.1	11.7
COPPER	16	109	57.6	128 J	86.2 J
HEXAVALENT CHROMIUM	1 UL	1.6 UL	1.6 UL	1.4 UL	1.2 UL
LEAD	8.9	251	130	215	86.9
MERCURY	0.06 L	3.5 L	1 L	1.5 K	0.43 K
MOLYBDENUM	0.88	1.8	1	2.4	0.65
NICKEL	19.1	69.1	35.1	59.8	24.2
SELENIUM	0.63 UL	0.94 UL	0.9 UL	1.4 B	0.73 B
SILVER	0.49 L	27.3	11.5	15.6	0.74 L
THALLIUM	1.08 U	2.1	1.53 U	1.5 U	0.85 U
VANADIUM	27.8	110	49.2	98.8	32.5
ZINC	54	484	458	531	258
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	3.5 U
MONOBUTYLTIN	NA	NA	NA	NA	4.6 U
TETRABUTYLTIN	NA	NA	NA	NA	4.6 U
TRIBUTYLTIN	NA	NA	NA	NA	4.1 U
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	46	32	32	35	39
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	33000	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-29	SD-31	SD-40	SD-42	SD-43
SAMPLE ID	SD-29-01	SD-31-01	SD-40-01	SD-42-01	SD-43-01
SAMPLE DATE	20051021	20051021	20051021	20051021	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	10
BOTTOM DEPTH	12	12	12	12	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,1,1-TRICHLOROETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,1,2,2-TETRACHLOROETHANE	13 UJ	10 UJ	13 U	9 UJ	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,1-DICHLOROETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,1-DICHLOROETHENE	13 UJ	10 UJ	13 U	9 U	NA
1,1-DICHLOROPROPENE	13 UJ	10 UJ	13 U	9 U	NA
1,2,3-TRICHLOROBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2,3-TRICHLOROPROPANE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2,3-TRIMETHYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2,4-TRICHLOROBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2,4-TRIMETHYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2-DIBROMO-3-CHLOROPROPANE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2-DIBROMOETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,2-DICHLOROBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,2-DICHLOROETHANE	13 UJ	10 UJ	13 U	9 U	NA
1,2-DICHLOROPROPANE	13 UJ	10 UJ	13 U	9 U	NA
1,3-DICHLOROBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
1,3-DICHLOROPROPANE	13 UJ	10 UJ	13 U	9 U	NA
1,4-DICHLOROBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
2,2-DICHLOROPROPANE	13 UJ	10 UJ	13 U	9 U	NA
2-BUTANONE	64 UJ	52 UJ	66 UR	47 UR	NA
2-CHLOROETHYL VINYL ETHER	13 UJ	10 UJ	13 U	9 U	NA
2-CHLOROTOLUENE	13 UJ	10 UJ	13 U	9 UJ	NA
2-HEXANONE	64 UJ	52 UJ	66 U	47 U	NA
4-CHLOROTOLUENE	13 UJ	10 UJ	13 U	9 UJ	NA
4-ISOPROPYLTOLUENE	13 UJ	10 UJ	13 U	9 UJ	NA
4-METHYL-2-PENTANONE	64 UJ	52 UJ	66 U	47 U	NA
ACETONE	150 B	65 B	200 J	36 J	NA
BENZENE	13 UJ	10 UJ	13 U	9 U	NA
BROMOBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
BROMOCHLOROMETHANE	13 UJ	10 UJ	13 U	9 U	NA
BROMODICHLOROMETHANE	13 UJ	10 UJ	13 U	9 U	NA
BROMOFORM	13 UJ	10 UJ	13 U	9 U	NA
BROMOMETHANE	25 UJ	21 UJ	26 U	19 U	NA
CARBON DISULFIDE	13 UJ	5 J	13 U	5 J	NA
CARBON TETRACHLORIDE	13 UJ	10 UJ	13 U	9 U	NA
CHLOROBENZENE	13 UJ	10 UJ	13 U	9 U	NA
CHLORODIBROMOMETHANE	13 UJ	10 UJ	13 U	9 U	NA
CHLOROETHANE	25 UJ	21 UJ	26 U	19 U	NA
CHLOROFORM	13 UJ	10 UJ	13 U	9 U	NA
CHLOROMETHANE	25 UJ	21 UJ	26 U	19 U	NA
CIS-1,2-DICHLOROETHENE	13 UJ	10 UJ	13 U	9 U	NA
CIS-1,3-DICHLOROPROPENE	13 UJ	10 UJ	13 U	9 U	NA
DIBROMOMETHANE	13 UJ	10 UJ	13 U	9 U	NA
DICHLORODIFLUOROMETHANE	25 UJ	21 UJ	26 U	19 U	NA
DIISOPROPYL ETHER	13 UJ	10 UJ	13 U	9 U	NA
ETHYL TERT-BUTYL ETHER	13 UJ	10 UJ	13 U	9 U	NA
ETHYLBENZENE	13 UJ	10 UJ	13 U	9 U	NA
HEXACHLOROBUTADIENE	13 UJ	10 UJ	13 U	9 UJ	NA
ISOPROPYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
M+P-XYLENES	25 UJ	21 UJ	26 U	19 U	NA
METHYL TERT-BUTYL ETHER	25 UJ	21 UJ	26 U	3 J	NA
METHYLENE CHLORIDE	6 B	10 UJ	13 U	9 U	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-29	SD-31	SD-40	SD-42	SD-43
SAMPLE ID	SD-29-01	SD-31-01	SD-40-01	SD-42-01	SD-43-01
SAMPLE DATE	20051021	20051021	20051021	20051021	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	10
BOTTOM DEPTH	12	12	12	12	14
NAPHTHALENE	13 UJ	10 UJ	13 U	9 UJ	NA
N-BUTYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
N-PROPYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
O-XYLENE	13 UJ	10 UJ	13 U	9 U	NA
SEC-BUTYLBENZENE	13 UJ	10 UJ	13 U	9 UJ	NA
STYRENE	13 UJ	10 UL	13 U	9 U	NA
TERT-AMYL METHYL ETHER	13 UJ	10 UJ	13 U	9 U	NA
TERT-BUTYLBENZENE	13 UJ	10 UJ	13 U	9 U	NA
TERTIARY-BUTYL ALCOHOL	25 UR	21 UR	26 UR	19 UR	NA
TETRACHLOROETHENE	13 UJ	10 UJ	13 U	9 U	NA
TOLUENE	13 UJ	2 J	13 U	9 U	NA
TOTAL 1,2-DICHLOROETHENE	25 UJ	21 UJ	26 U	19 U	NA
TOTAL XYLENES	38 UJ	31 UJ	39 U	28 U	NA
TRANS-1,2-DICHLOROETHENE	13 UJ	10 UJ	13 U	9 U	NA
TRANS-1,3-DICHLOROPROPENE	13 UJ	10 UJ	13 U	9 U	NA
TRICHLOROETHENE	13 UJ	10 UJ	13 U	9 U	NA
TRICHLOROFLUOROMETHANE	25 UJ	21 UJ	26 U	19 U	NA
VINYL ACETATE	13 UJ	10 UJ	13 U	9 U	NA
VINYL CHLORIDE	25 UJ	21 UJ	26 U	19 U	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	900 U	740 U	860 U	NA	NA
1,2-DICHLOROBENZENE	900 U	740 U	860 U	NA	NA
1,3-DICHLOROBENZENE	900 U	740 U	860 U	NA	NA
1,4-DICHLOROBENZENE	900 U	740 U	100 B	NA	NA
1,4-DIOXANE	900 U	740 U	860 U	NA	NA
1-METHYLNAPHTHALENE	900 U	740 U	860 U	NA	410 U
2,2'-OXYBIS(1-CHLOROPROPANE)	900 U	740 U	860 U	NA	NA
2,4,5-TRICHLOROPHENOL	2200 U	1800 U	2100 U	NA	NA
2,4,6-TRICHLOROPHENOL	900 U	740 U	860 U	NA	NA
2,4-DICHLOROPHENOL	900 U	740 U	860 U	NA	NA
2,4-DIMETHYLPHENOL	900 U	740 U	860 U	NA	NA
2,4-DINITROPHENOL	2200 U	1800 U	2100 U	NA	NA
2,4-DINITROTOLUENE	900 U	740 U	860 U	NA	NA
2,6-DINITROTOLUENE	900 U	740 U	860 U	NA	NA
2-CHLORONAPHTHALENE	900 U	740 U	860 U	NA	NA
2-CHLOROPHENOL	900 U	740 U	860 U	NA	NA
2-METHYLNAPHTHALENE	900 U	740 U	860 U	NA	410 U
2-METHYLPHENOL	900 U	740 U	860 U	NA	NA
2-NITROANILINE	2200 U	1800 U	2100 U	NA	NA
2-NITROPHENOL	900 U	740 U	860 U	NA	NA
3&4-METHYLPHENOL	900 U	740 U	860 U	NA	NA
3,3'-DICHLOROBENZIDINE	900 U	740 U	860 U	NA	NA
3-NITROANILINE	2200 U	1800 U	2100 U	NA	NA
4,6-DINITRO-2-METHYLPHENOL	2200 U	1800 U	2100 U	NA	NA
4-BROMOPHENYL PHENYL ETHER	900 U	740 U	860 U	NA	NA
4-CHLORO-3-METHYLPHENOL	900 U	740 U	860 U	NA	NA
4-CHLOROANILINE	900 U	740 U	860 U	NA	NA
4-CHLOROPHENYL PHENYL ETHER	900 U	740 U	860 U	NA	NA
4-NITROANILINE	2200 U	1800 U	2100 U	NA	NA
4-NITROPHENOL	2200 U	1800 U	2100 U	NA	NA
ACENAPHTHENE	900 U	740 U	180 B	NA	410 U
ACENAPHTHYLENE	900 U	740 U	860 U	NA	410 U
ANILINE	900 U	740 U	860 U	NA	NA
ANTHRACENE	900 U	740 U	170 J	NA	410 U
AZOBENZENE	900 U	740 U	860 U	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-29	SD-31	SD-40	SD-42	SD-43
SAMPLE ID	SD-29-01	SD-31-01	SD-40-01	SD-42-01	SD-43-01
SAMPLE DATE	20051021	20051021	20051021	20051021	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	10
BOTTOM DEPTH	12	12	12	12	14
BAP EQUIVALENT-1/2 NON-DETECTS	1308	740 U	1076	NA	450
BAP EQUIVALENT-POSITIVE RESULTS	858	740 U	642	NA	19.5
BENZIDINE	2200 U	1800 U	2100 U	NA	NA
BENZO(A)ANTHRACENE	610 J	740 U	410 J	NA	410 U
BENZO(A)PYRENE	650 J	740 U	480 J	NA	410 U
BENZO(B)FLUORANTHENE	920 J	740 U	750 J	NA	120 J
BENZO(G,H,I)PERYLENE	410 J	740 U	440 J	NA	410 U
BENZO(K)FLUORANTHENE	490 J	740 U	860 U	NA	100 J
BENZOIC ACID	2200 U	1800 U	2100 U	NA	NA
BENZYL ALCOHOL	900 U	740 UJ	860 UJ	NA	NA
BIS(2-CHLOROETHOXY)METHANE	900 U	740 U	860 U	NA	NA
BIS(2-CHLOROETHYL)ETHER	900 U	740 U	860 U	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	340 J	740 U	760 J	NA	NA
BUTYL BENZYL PHTHALATE	900 U	740 U	860 U	NA	NA
CARBAZOLE	900 U	740 U	860 U	NA	NA
CHRYSENE	660 J	740 U	670 J	NA	150 J
DIBENZO(A,H)ANTHRACENE	900 UJ	740 U	860 U	NA	410 U
DIBENZOFURAN	900 U	740 U	860 U	NA	NA
DIETHYL PHTHALATE	900 U	740 U	860 U	NA	NA
DIMETHYL PHTHALATE	900 U	740 U	860 U	NA	NA
DI-N-BUTYL PHTHALATE	900 U	740 U	860 U	NA	NA
DI-N-OCTYL PHTHALATE	900 UJ	740 U	860 U	NA	NA
FLUORANTHENE	1200	740 U	670 J	NA	160 J
FLUORENE	900 U	740 U	860 U	NA	410 U
HEXACHLOROBENZENE	900 U	740 U	860 U	NA	NA
HEXACHLOROBUTADIENE	900 U	740 U	860 U	NA	NA
HEXACHLOROCYCLOPENTADIENE	900 U	740 U	860 U	NA	NA
HEXACHLOROETHANE	900 U	740 U	860 U	NA	NA
INDENO(1,2,3-CD)PYRENE	490 J	740 U	450 J	NA	63 J
ISOPHORONE	900 U	740 U	860 U	NA	NA
NAPHTHALENE	180 J	740 U	860 U	NA	410 U
NITROBENZENE	900 U	740 U	860 U	NA	NA
N-NITROSODIMETHYLAMINE	900 U	740 U	860 U	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	900 U	740 U	860 U	NA	NA
N-NITROSODIPHENYLAMINE	900 U	740 U	860 U	NA	NA
PENTACHLOROPHENOL	2200 U	1800 U	2100 U	NA	NA
PHENANTHRENE	550 J	740 U	300 J	NA	91 J
PHENOL	900 U	740 U	860 U	NA	NA
PYRENE	1400	740 U	1200	NA	240 J
PYRIDINE	900 U	740 U	860 U	NA	NA
TOTAL PAHS	7560	0 U	5540	NA	924

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-29	SD-31	SD-40	SD-42	SD-43
SAMPLE ID	SD-29-01	SD-31-01	SD-40-01	SD-42-01	SD-43-01
SAMPLE DATE	20051021	20051021	20051021	20051021	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	10
BOTTOM DEPTH	12	12	12	12	14
PCBS (UG/KG)					
AROCLOR-1016	47 U	38 U	44 U	NA	25 U
AROCLOR-1221	47 U	38 U	44 U	NA	25 U
AROCLOR-1232	47 U	38 U	44 U	NA	25 U
AROCLOR-1242	47 U	38 U	44 U	NA	25 U
AROCLOR-1248	47 U	38 U	44 U	NA	25 U
AROCLOR-1254	47 U	38 U	44 U	NA	25 U
AROCLOR-1260	210	38 U	400	NA	25 U
TOTAL AROCLOR	210	0 U	400	NA	0 U
METALS (MG/KG)					
ANTIMONY	1.2 L	1.64 UL	0.66 U	0.58 U	0.15 U
ARSENIC	3.9	12.6	5.4	1.46 U	6.6
BARIUM	63.5	76.6	52.4	54.2	75.8 J
BERYLLIUM	2.1	3.6	2.2	1.2	1.8 J
CADMIUM	40.5	0.28	31.2	157	6.2
CHROMIUM	817 K	75 K	475	1100	250 J
COBALT	17.3	29	20.9	12	16.1
COPPER	67.5 J	38.7 J	93.7	95.6	33.9 J
HEXAVALENT CHROMIUM	1.4 UL	1.1 UL	1.3 U	1.6	NA
LEAD	136	52.3	182	256	73.6 J
MERCURY	0.1 B	0.09 B	0.67	0.52	0.21
MOLYBDENUM	1.7	2.2	1.4	1.7	0.49
NICKEL	43.1	46.1	45.8	39.3	18.7
SELENIUM	1.3 B	1.44 U	0.61	0.51 U	1.4
SILVER	12.6	0.42 UL	5.4	7.5	0.15 B
THALLIUM	1.3 U	2.45 U	1 B	0.87 U	0.25 U
VANADIUM	57	72.9	50.7	42.3	36.2 J
ZINC	456	179	430	598	127
METALS (UG/KG)					
DIBUTYLTIN	NA	3 U	5	NA	NA
MONOBUTYLTIN	NA	3.9 U	4.2 U	NA	NA
TETRABUTYLTIN	NA	3.9 U	4.2 U	NA	NA
TRIBUTYLTIN	NA	3.4 U	3.7 U	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	36	45	38	53	65
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	46000	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-44	SD-45	SD-46	SD-46	SD-46
SAMPLE ID	SD-44-01	SD-45-01	SD-46-01	SD-46-01-AVG	SD-46-01-D
SAMPLE DATE	20081117	20081117	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-44	SD-45	SD-46	SD-46	SD-46
SAMPLE ID	SD-44-01	SD-45-01	SD-46-01	SD-46-01-AVG	SD-46-01-D
SAMPLE DATE	20081117	20081117	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	390 U	650 U	710 U	705 U	700 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	390 U	650 U	710 U	705 U	700 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	390 U	650 U	710 U	705 U	700 U
ACENAPHTHYLENE	390 U	650 U	710 U	705 U	700 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	390 U	650 U	89 J	94.5 J	100 J
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-44	SD-45	SD-46	SD-46	SD-46
SAMPLE ID	SD-44-01	SD-45-01	SD-46-01	SD-46-01-AVG	SD-46-01-D
SAMPLE DATE	20081117	20081117	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
BAP EQUIVALENT-1/2 NON-DETECTS	390 U	725	828	1050	1239
BAP EQUIVALENT-POSITIVE RESULTS	390 U	42.0	82.5	697	889
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	390 U	650 U	710 U	680 J	680 J
BENZO(A)PYRENE	390 U	650 U	710 U	532.5	710
BENZO(B)FLUORANTHENE	390 U	240 J	470 J	550 J	630 J
BENZO(G,H,I)PERYLENE	390 U	160 J	310 J	375 J	440 J
BENZO(K)FLUORANTHENE	390 U	270 J	480 J	580 J	680 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	390 U	340 J	650 J	735 J	820
DIBENZO(A,H)ANTHRACENE	390 U	650 U	710 U	705 U	700 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	390 U	440 J	960	1080	1200
FLUORENE	390 U	650 U	710 U	705 U	700 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	390 U	150 J	300 J	350 J	400 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	390 U	650 U	710 U	705 U	700 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	390 U	220 J	360 J	385 J	410 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	390 U	680	1300	1500	1700
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	2500	4919	6862	7770

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-44	SD-45	SD-46	SD-46	SD-46
SAMPLE ID	SD-44-01	SD-45-01	SD-46-01	SD-46-01-AVG	SD-46-01-D
SAMPLE DATE	20081117	20081117	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
PCBS (UG/KG)					
AROCLOR-1016	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1221	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1232	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1242	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1248	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1254	20 U	32 U	36 U	35.5 U	35 U
AROCLOR-1260	20 U	85	180	215	250
TOTAL AROCLOR	0 U	85	180	215	250
METALS (MG/KG)					
ANTIMONY	0.12 U	3.5	6.2 L	6.3 L	6.4 L
ARSENIC	2.6	7.8	10.1	10.05	10
BARIUM	16	61.8	80.2	80.75	81.3
BERYLLIUM	0.95	1.7	1.6	1.65	1.7
CADMIUM	0.089	120	306	303	300
CHROMIUM	14.5	1290	2460	2410	2360
COBALT	12.7	15.6	15.4	15.4	15.4
COPPER	8.1	82.1	167	168	169
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	5.8	151	407	410.5	414
MERCURY	0.015	0.44	0.73	0.745	0.76
MOLYBDENUM	0.25 B	1.5	1.3	1.4	1.5
NICKEL	9.8	30.7	70.4	69.8	69.2
SELENIUM	0.51	1.3	0.92	1.16	1.4
SILVER	0.086	8.2	8.9	10.1	11.3
THALLIUM	0.21 U	0.32 U	0.44	0.425	0.41
VANADIUM	23.5	46.3	71.5	74.2	76.9
ZINC	29.1	447	1150	1125	1100
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	85	51	47	47.5	48
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-47	SD-48	SD-49	SD-50	SD-50
SAMPLE ID	SD-47-01	SD-48-01	SD-49-01	SD-50-01	SD-50-01-AVG
SAMPLE DATE	20081115	20081115	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	8	8
BOTTOM DEPTH	14	14	14	16	16
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-47	SD-48	SD-49	SD-50	SD-50
SAMPLE ID	SD-47-01	SD-48-01	SD-49-01	SD-50-01	SD-50-01-AVG
SAMPLE DATE	20081115	20081115	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	8	8
BOTTOM DEPTH	14	14	14	16	16
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	710 U	430 U	560 U	1200 UJ	1200 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	710 U	430 U	560 U	1200 UJ	1200 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	710 U	430 U	560 U	1200 UJ	1200 UJ
ACENAPHTHYLENE	710 U	430 U	560 U	1200 UJ	1200 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	710 U	430 U	560 U	1200 UJ	1200 UJ
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-47	SD-48	SD-49	SD-50	SD-50
SAMPLE ID	SD-47-01	SD-48-01	SD-49-01	SD-50-01	SD-50-01-AVG
SAMPLE DATE	20081115	20081115	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	8	8
BOTTOM DEPTH	14	14	14	16	16
BAP EQUIVALENT-1/2 NON-DETECTS	710 U	430 U	560 U	1311	1328
BAP EQUIVALENT-POSITIVE RESULTS	710 U	430 U	560 U	50.5	67.9
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	710 U	430 U	560 U	1200 UJ	1200 UJ
BENZO(A)PYRENE	710 U	430 U	560 U	1200 UJ	1200 UJ
BENZO(B)FLUORANTHENE	710 U	430 U	560 U	320 J	425 J
BENZO(G,H,I)PERYLENE	710 U	430 U	560 U	1200 UJ	1200 UJ
BENZO(K)FLUORANTHENE	710 U	430 U	560 U	310 J	395 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	710 U	430 U	560 U	410 J	460 J
DIBENZO(A,H)ANTHRACENE	710 U	430 U	560 U	1200 UJ	1200 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	710 U	430 U	560 U	470 J	590 J
FLUORENE	710 U	430 U	560 U	1200 UJ	1200 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	710 U	430 U	560 U	150 J	210 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	710 U	430 U	560 U	1200 UJ	1200 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	710 U	430 U	560 U	1200 UJ	270 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	710 U	430 U	560 U	680 J	840 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	0 U	2340	3190

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-47	SD-48	SD-49	SD-50	SD-50
SAMPLE ID	SD-47-01	SD-48-01	SD-49-01	SD-50-01	SD-50-01-AVG
SAMPLE DATE	20081115	20081115	20081115	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	8	8
BOTTOM DEPTH	14	14	14	16	16
PCBS (UG/KG)					
AROCLOR-1016	36 U	22 U	35 U	300 UJ	295 UJ
AROCLOR-1221	36 U	22 U	35 U	3000 UJ	1645 UJ
AROCLOR-1232	36 U	22 U	35 U	3000 UJ	1645 UJ
AROCLOR-1242	36 U	22 U	35 U	3000 UJ	1645 UJ
AROCLOR-1248	36 U	22 U	35 U	3000 UJ	1645 UJ
AROCLOR-1254	36 U	22 U	35 U	3000 UJ	1645 UJ
AROCLOR-1260	36 U	22 U	35 U	2400 J	1900 J
TOTAL AROCLOR	0 U	0 U	0 U	2400	1900
METALS (MG/KG)					
ANTIMONY	0.21 UL	0.13 UL	0.21 U	0.36 UJ	0.385 BJ
ARSENIC	3.6	1.4	5.3	10.6 J	11.3 J
BARIUM	26.9	8.1	30.4 J	72.9 J	64.35 J
BERYLLIUM	1.5	1.1	1.6 J	2.1 J	2.15 J
CADMIUM	0.33	0.045	0.037 B	9.5 J	9.45 J
CHROMIUM	24.2	8.9	23.5 J	220 J	217.5 J
COBALT	9.2	2.2	13.6	21.1 J	21.65 J
COPPER	14.7	5.1	13.7 J	115 J	119.5 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	12.5	2.9	8 J	128 J	129 J
MERCURY	0.041 B	0.011 B	0.031 B	0.51 J	0.515 J
MOLYBDENUM	1.5	0.94	1.2	0.87 B	0.985 B
NICKEL	14.3	5.5	15.9	41.2 J	42.5 J
SELENIUM	1.1	0.42 U	1.1	1.7 J	1.5 J
SILVER	0.19	0.08 U	0.14 B	3.6 J	3.5 J
THALLIUM	0.37 U	0.22 U	0.35 U	0.62 UJ	0.62 UJ
VANADIUM	33.8	13	25.2 J	57.1 J	58.2 J
ZINC	36.2	10.8	59	357 J	369 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	47	77	47	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-53	SD-54	SD-55
SAMPLE ID	SD-50-01-D	SD-51-01	SD-53-01	SD-54-01	SD-55-01
SAMPLE DATE	20081114	20081115	20081114	20081114	20081113
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	8	10	10	10	10
BOTTOM DEPTH	16	14	14	14	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-53	SD-54	SD-55
SAMPLE ID	SD-50-01-D	SD-51-01	SD-53-01	SD-54-01	SD-55-01
SAMPLE DATE	20081114	20081115	20081114	20081114	20081113
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	8	10	10	10	10
BOTTOM DEPTH	16	14	14	14	14
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
ACENAPHTHYLENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-53	SD-54	SD-55
SAMPLE ID	SD-50-01-D	SD-51-01	SD-53-01	SD-54-01	SD-55-01
SAMPLE DATE	20081114	20081115	20081114	20081114	20081113
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	8	10	10	10	10
BOTTOM DEPTH	16	14	14	14	14
BAP EQUIVALENT-1/2 NON-DETECTS	1345	1100 U	910 U	1564	1228
BAP EQUIVALENT-POSITIVE RESULTS	85.3	1100 U	910 U	93.8	72.5
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
BENZO(A)PYRENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
BENZO(B)FLUORANTHENE	530 J	1100 U	910 U	580 J	430 J
BENZO(G,H,I)PERYLENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
BENZO(K)FLUORANTHENE	480 J	1100 U	910 U	520 J	410 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	510 J	1100 U	910 U	560 J	440 J
DIBENZO(A,H)ANTHRACENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	710 J	1100 U	910 U	680 J	580 J
FLUORENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	270 J	1100 U	910 U	300 J	250 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1200 UJ	1100 U	910 U	1400 UJ	1100 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	270 J	1100 U	910 U	330 J	270 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	1000 J	1100 U	910 U	1300 J	1100 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	3770	0 U	0 U	4270	3480

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-53	SD-54	SD-55
SAMPLE ID	SD-50-01-D	SD-51-01	SD-53-01	SD-54-01	SD-55-01
SAMPLE DATE	20081114	20081115	20081114	20081114	20081113
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	8	10	10	10	10
BOTTOM DEPTH	16	14	14	14	14
PCBS (UG/KG)					
AROCLOR-1016	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1221	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1232	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1242	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1248	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1254	290 UJ	53 U	45 U	69 UJ	55 U
AROCLOR-1260	1400 J	53 U	45 U	110 J	440
TOTAL AROCLOR	1400	0 U	0 U	110	440
METALS (MG/KG)					
ANTIMONY	0.41 B	0.33 UL	0.28 UL	0.41 UJ	0.33 UL
ARSENIC	12 J	8.9	7.1	11.3 J	9.5
BARIUM	55.8 J	47.3	39.5	63 J	52.2
BERYLLIUM	2.2 J	1.9	2.1	2.4 J	2.1
CADMIUM	9.4 J	15.7	0.12	7.7 J	7.8
CHROMIUM	215 J	314	37.6	181 J	180
COBALT	22.2 J	18.4	15.8	24 J	19.2
COPPER	124 J	86.1	19.8	134 J	92.6
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	130 J	137	14.6	137 J	111
MERCURY	0.52 J	0.68	0.056	0.49 J	0.42
MOLYBDENUM	1.1 B	1.5	0.92	1.5 J	1.3
NICKEL	43.8 J	38.4	25.4	46 J	38
SELENIUM	1.3 J	2.5	1.3	2.5 J	2
SILVER	3.4 J	5.4	0.18 U	2.7 J	3.5
THALLIUM	0.62 UJ	0.56 U	0.48 U	0.71 UJ	0.57 U
VANADIUM	59.3 J	54.1	42.7	65.4 J	55.7
ZINC	381 J	338	81	420 J	322
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	32	37	24	30
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-56	SD-57	SD-58	SD-59	SD-60
SAMPLE ID	SD-56-01	SD-57-01	SD-58-01	SD-59-01	SD-60-01
SAMPLE DATE	20081113	20081114	20081114	20081115	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-56	SD-57	SD-58	SD-59	SD-60
SAMPLE ID	SD-56-01	SD-57-01	SD-58-01	SD-59-01	SD-60-01
SAMPLE DATE	20081113	20081114	20081114	20081115	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	910 U	840 U	150 J	820 U	790 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	910 U	840 U	980 U	820 U	790 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	910 U	840 U	2400 J	820 U	790 U
ACENAPHTHYLENE	910 U	840 U	980 U	820 U	790 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	97 J	840 U	4400 J	820 U	790 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-56	SD-57	SD-58	SD-59	SD-60
SAMPLE ID	SD-56-01	SD-57-01	SD-58-01	SD-59-01	SD-60-01
SAMPLE DATE	20081113	20081114	20081114	20081115	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
BAP EQUIVALENT-1/2 NON-DETECTS	1049	840 U	12075	927.8	905
BAP EQUIVALENT-POSITIVE RESULTS	93.1	840 U	12075	66.8	35.6
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	910 U	840 U	12000	820 U	790 U
BENZO(A)PYRENE	910 U	840 U	9000	820 U	790 U
BENZO(B)FLUORANTHENE	580 J	840 U	9400	420 J	330 J
BENZO(G,H,I)PERYLENE	340 J	840 U	4600	820 U	790 U
BENZO(K)FLUORANTHENE	560 J	840 U	7300	330 J	230 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	530 J	840 U	12000	450 J	320 J
DIBENZO(A,H)ANTHRACENE	910 U	840 U	380 J	820 U	790 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	830 J	840 U	20000 J	540 J	390 J
FLUORENE	910 U	840 U	2000 J	820 U	790 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	290 J	840 U	4700	210 J	790 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	910 U	840 U	290 J	820 U	790 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	300 J	840 U	15000 J	250 J	240 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	1100	840 U	15000	900	660 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	4627	0 U	118470	3100	2170

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-56	SD-57	SD-58	SD-59	SD-60
SAMPLE ID	SD-56-01	SD-57-01	SD-58-01	SD-59-01	SD-60-01
SAMPLE DATE	20081113	20081114	20081114	20081115	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
PCBS (UG/KG)					
AROCLOR-1016	46 U	42 U	980 U	51 U	50 U
AROCLOR-1221	46 U	42 U	980 U	51 U	50 U
AROCLOR-1232	46 U	42 U	980 U	51 U	50 U
AROCLOR-1242	46 U	42 U	980 U	51 U	50 U
AROCLOR-1248	46 U	42 U	980 U	51 U	50 U
AROCLOR-1254	46 U	42 U	980 U	51 U	50 U
AROCLOR-1260	310	42 U	14000	1300	50 U
TOTAL AROCLOR	310	0 U	14000	1300	0 U
METALS (MG/KG)					
ANTIMONY	0.38 L	0.26 UJ	0.29 UJ	0.3 U	1.5 J
ARSENIC	8	8	10	10.6	12.1
BARIUM	41.2	30.8	236	57.6 J	59.8 J
BERYLLIUM	1.8	2.1	1.8	2.3 J	2.1 J
CADMIUM	9.7	0.015 U	17.2	11.8	17.7
CHROMIUM	193	33.1	1290	261 J	327 J
COBALT	17	13.7	16.8	21.5	21.3 J
COPPER	79.3	18.4	132	101 J	126 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	107	11.7	159	200 J	207
MERCURY	0.51	0.016	1.5	0.57	0.91
MOLYBDENUM	1.1	0.39 B	0.87 B	1.4	1.7
NICKEL	34.3	23.3	40	46.2	52.3 J
SELENIUM	1.7	1	0.96	2.2	2.3
SILVER	4.3	0.16 U	5.6	3.9	7.7
THALLIUM	0.47 U	0.44 U	0.49 U	0.51 U	0.51 U
VANADIUM	54.7	38.5	50.6	69.8 J	86 J
ZINC	308	68	1300	399	463 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	37	NA	NA	32	34
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	19000	23000	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-61	SD-62	SD-63	SD-64	SD-65
SAMPLE ID	SD-61-01	SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE	20081113	20081112	20081112	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

LOCATION	SD-61	SD-62	SD-63	SD-64	SD-65
SAMPLE ID	SD-61-01	SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE	20081113	20081112	20081112	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1000 U	790 U	800 U	630 U	1000 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1000 U	790 U	800 U	630 U	1000 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1000 U	790 U	800 U	630 U	1000 UJ
ACENAPHTHYLENE	1000 U	790 U	800 U	630 U	1000 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	160 J	790 U	210 J	110 J	1000 UJ
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-61	SD-62	SD-63	SD-64	SD-65
SAMPLE ID	SD-61-01	SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE	20081113	20081112	20081112	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
BAP EQUIVALENT-1/2 NON-DETECTS	1194	899	2010	1048	1000 U
BAP EQUIVALENT-POSITIVE RESULTS	144	30.2	1610	702	1000 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1000 U	790 U	1100	630 U	1000 UJ
BENZO(A)PYRENE	1000 U	790 U	1300	600 J	1000 UJ
BENZO(B)FLUORANTHENE	800 J	270 J	1100	630	1000 UJ
BENZO(G,H,I)PERYLENE	630 J	790 U	820	380 J	1000 UJ
BENZO(K)FLUORANTHENE	800 J	290 J	1300	620 J	1000 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	880 J	260 J	1400	640	1000 UJ
DIBENZO(A,H)ANTHRACENE	1000 U	790 U	800 U	630 U	1000 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1200	290 J	1700	950	270 J
FLUORENE	1000 U	790 U	100 J	630 U	1000 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	550 J	790 U	760 J	320 J	1000 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1000 U	790 U	800 U	630 U	1000 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	540 J	790 U	1000	440 J	1000 UJ
PHENOL	NA	NA	NA	NA	NA
PYRENE	2000	580 J	3900 J	1700 J	400 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	7560	1690	14690	6390	670

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-61	SD-62	SD-63	SD-64	SD-65
SAMPLE ID	SD-61-01	SD-62-01	SD-63-01	SD-64-01	SD-65-01
SAMPLE DATE	20081113	20081112	20081112	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
PCBS (UG/KG)					
AROCLOR-1016	52 U	49 U	50 U	39 U	51 U
AROCLOR-1221	52 U	49 U	50 U	39 U	51 U
AROCLOR-1232	52 U	49 U	50 U	39 U	51 U
AROCLOR-1242	52 U	49 U	50 U	39 U	51 U
AROCLOR-1248	52 U	49 U	50 U	39 U	51 U
AROCLOR-1254	52 U	49 U	50 U	39 U	51 U
AROCLOR-1260	1000	49 U	1100	190 J	51 U
TOTAL AROCLOR	1000	0 U	1100	190	0 U
METALS (MG/KG)					
ANTIMONY	0.63 L	0.98 J	2.2 J	2.1 J	0.31 UJ
ARSENIC	8.8	9.8	10.3	7.7	10.4
BARIUM	53.7	47.5 J	61.3 J	41.8 J	56.4
BERYLLIUM	2.2	1.9 J	1.8 J	1.9 J	2
CADMIUM	16.5	9.9	31 J	14.4 J	19.2
CHROMIUM	335	196 J	444 J	298 J	332
COBALT	19.8	17.2 J	16.4 J	14.2 J	17.1
COPPER	96.2	90.6 J	108 J	49.2 J	178 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	148	159	183 J	84.1 J	201
MERCURY	0.82	0.51	2	0.25	1
MOLYBDENUM	1	1.3	1.6 J	1.4 J	1.9
NICKEL	42.6	41.1 J	50.7 J	35.7 J	51.7 J
SELENIUM	1.8	2.1	2.4 J	1.3 J	2.4 J
SILVER	7.6	3.7	20.8 J	15.3 J	12.9
THALLIUM	0.55 U	0.53 U	0.51 U	0.41 U	0.54 U
VANADIUM	61.3	65.8 J	88.8 J	57.2 J	89
ZINC	406	323 J	464 J	248 J	386 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	32	34	33	42	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	21000	NA	16000	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-66	SD-67	SD-68	SD-68	SD-68
SAMPLE ID	SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG	SD-68-01-D
SAMPLE DATE	20081112	20081111	20081112	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-66	SD-67	SD-68	SD-68	SD-68
SAMPLE ID	SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG	SD-68-01-D
SAMPLE DATE	20081112	20081111	20081112	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
ACENAPHTHYLENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-66	SD-67	SD-68	SD-68	SD-68
SAMPLE ID	SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG	SD-68-01-D
SAMPLE DATE	20081112	20081111	20081112	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
BAP EQUIVALENT-1/2 NON-DETECTS	988	1100 U	1030	1019	1040
BAP EQUIVALENT-POSITIVE RESULTS	63.5	1100 U	17.9	17.9	0.13
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
BENZO(A)PYRENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
BENZO(B)FLUORANTHENE	420 J	1100 UJ	160 J	160 J	900 UJ
BENZO(G,H,I)PERYLENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
BENZO(K)FLUORANTHENE	310 J	1100 UJ	170 J	170 J	900 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	400 K	1100 UJ	170 J	150 J	130 J
DIBENZO(A,H)ANTHRACENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	450 J	1100 UJ	210 J	185 J	160 J
FLUORENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	180 J	1100 UJ	920 UJ	910 UJ	900 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	880 U	1100 UJ	920 UJ	910 UJ	900 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	230 J	1100 UJ	920 UJ	910 UJ	900 UJ
PHENOL	NA	NA	NA	NA	NA
PYRENE	1000 J	1100 UJ	400 J	345 J	290 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	2990	0 U	1110	1010	580

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-66	SD-67	SD-68	SD-68	SD-68
SAMPLE ID	SD-66-01	SD-67-01	SD-68-01	SD-68-01-AVG	SD-68-01-D
SAMPLE DATE	20081112	20081111	20081112	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	8	8	8
BOTTOM DEPTH	14	14	16	16	16
PCBS (UG/KG)					
AROCLOR-1016	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1221	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1232	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1242	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1248	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1254	55 U	57 UJ	57 UJ	56.5 UJ	56 UJ
AROCLOR-1260	370 J	140 J	57 UJ	56.5 UJ	56 UJ
TOTAL AROCLOR	370	140	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	1.6 J	0.44 B	1.1 J	1.45 J	1.8 J
ARSENIC	11.2	10.5 J	12.3 J	11.95 J	11.6 J
BARIUM	60.3 J	55.2 J	66.5 J	64.25 J	62 J
BERYLLIUM	2.1 J	2.1 J	2.2 J	2.15 J	2.1 J
CADMIUM	9.8	7.7 J	12.3 J	12.05 J	11.8 J
CHROMIUM	172 J	162 J	265 J	252 J	239 J
COBALT	19.3 J	18.5 J	19.3 J	18.9 J	18.5 J
COPPER	92.7 J	88.6 J	126 J	124 J	122 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	196	174 J	285 J	244 J	203 J
MERCURY	0.52	0.41 J	0.76 J	0.785 J	0.81 J
MOLYBDENUM	1.5	1.7 B	1.9 J	1.8 J	1.7 J
NICKEL	47 J	43.9 J	51.9 J	50.6 J	49.3 J
SELENIUM	2.6	1.9 J	2.4 J	1.95 J	1.5 J
SILVER	3.8	4 J	5.6 J	5.6 J	5.6 J
THALLIUM	0.55 U	0.58 UJ	0.56 UJ	0.575 UJ	0.59 UJ
VANADIUM	70.5 J	66.3 J	88.9 J	84.9 J	80.9 J
ZINC	405 J	365 J	431 J	418 J	405 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	30	NA	29	29.5	30
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-69	SD-70	SD-71	SD-72	SD-73
SAMPLE ID	SD-69-01	SD-70-01	SD-71-01	SD-72-01	SD-73-01
SAMPLE DATE	20081111	20081111	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-69	SD-70	SD-71	SD-72	SD-73
SAMPLE ID	SD-69-01	SD-70-01	SD-71-01	SD-72-01	SD-73-01
SAMPLE DATE	20081111	20081111	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	440 U	1000 UJ	1100 UJ	320 U	740 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	440 U	1000 UJ	1100 UJ	320 U	740 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	440 U	1000 UJ	1100 UJ	320 U	740 U
ACENAPHTHYLENE	440 U	1000 UJ	1100 UJ	320 U	740 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	440 U	1000 UJ	1100 UJ	320 U	740 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-69	SD-70	SD-71	SD-72	SD-73
SAMPLE ID	SD-69-01	SD-70-01	SD-71-01	SD-72-01	SD-73-01
SAMPLE DATE	20081111	20081111	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
BAP EQUIVALENT-1/2 NON-DETECTS	440 U	1000 U	1100 U	320 U	740 U
BAP EQUIVALENT-POSITIVE RESULTS	440 U	1000 U	1100 U	320 U	740 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	440 U	1000 UJ	1100 UJ	320 U	740 U
BENZO(A)PYRENE	440 U	1000 UJ	1100 UJ	320 U	740 U
BENZO(B)FLUORANTHENE	440 U	1000 UJ	1100 UJ	320 U	740 U
BENZO(G,H,I)PERYLENE	440 U	1000 UJ	1100 UJ	320 U	740 U
BENZO(K)FLUORANTHENE	440 U	1000 UJ	1100 UJ	320 U	740 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	440 U	1000 UJ	1100 UJ	320 U	740 U
DIBENZO(A,H)ANTHRACENE	440 U	1000 UJ	1100 UJ	320 U	740 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	440 U	490 J	210 J	320 U	740 U
FLUORENE	440 U	1000 UJ	1100 UJ	320 U	740 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	440 U	1000 UJ	1100 UJ	320 U	740 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	440 U	1000 UJ	1100 UJ	320 U	740 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	440 U	220 J	1100 UJ	320 U	740 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	440 U	800 J	460 J	320 UJ	740 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	1510	670	0 U	0 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-69	SD-70	SD-71	SD-72	SD-73
SAMPLE ID	SD-69-01	SD-70-01	SD-71-01	SD-72-01	SD-73-01
SAMPLE DATE	20081111	20081111	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
PCBS (UG/KG)					
AROCLOR-1016	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1221	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1232	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1242	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1248	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1254	22 U	52 U	53 U	20 UJ	37 U
AROCLOR-1260	22 U	420	380	20 UJ	37 U
TOTAL AROCLOR	0 U	420	380	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.32 L	0.31 UJ	0.32 UJ	0.12 UL	0.21 UL
ARSENIC	3.8	12.3	10.2	3	4.5
BARIUM	65.8	60.3	52.9	17.5 J	24.2
BERYLLIUM	6.9	2.2	2.1	0.51 J	1.8
CADMIUM	0.0074 U	9.7	7.8	0.0069 UL	0.026
CHROMIUM	21.9	223	169	13.4 J	24.9
COBALT	33	18.1	16.5	1.6 J	11.9
COPPER	17	108 J	87.7 J	10.6 J	17.6
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	8.9	214	158	4.5 J	8.9
MERCURY	0.015 B	0.67	0.44	0.0089 B	0.029 B
MOLYBDENUM	0.18	1.6 B	1.8	0.25 J	1.5
NICKEL	67.1	46.6 J	39.9 J	4.1 J	20.1
SELENIUM	0.41 UL	2.3 J	1.3 J	0.38 UL	0.7 UL
SILVER	0.079 U	5.7	6.4	0.074 UL	0.13 U
THALLIUM	0.21 U	0.53 U	0.55 U	0.2 U	0.36 U
VANADIUM	35.6 K	79.2	63.5	19.6 J	35.5 K
ZINC	147	390 J	352 J	12.6 J	50.2
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	76	NA	NA	82	45
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	2200	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-74	SD-75	SD-76	SD-77	SD-79
SAMPLE ID	SD-74-01	SD-75-01	SD-76-01	SD-77-01	SD-79-01
SAMPLE DATE	20081111	20081112	20081111	20081110	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-74	SD-75	SD-76	SD-77	SD-79
SAMPLE ID	SD-74-01	SD-75-01	SD-76-01	SD-77-01	SD-79-01
SAMPLE DATE	20081111	20081112	20081111	20081110	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	400 U	520 U	3900 U	460 U	820 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	400 U	520 U	3900 U	460 U	820 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	400 U	94 J	3900 U	120 J	820 U
ACENAPHTHYLENE	400 U	520 U	3900 U	460 U	820 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	400 U	120 J	440 J	270 J	820 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-74	SD-75	SD-76	SD-77	SD-79
SAMPLE ID	SD-74-01	SD-75-01	SD-76-01	SD-77-01	SD-79-01
SAMPLE DATE	20081111	20081112	20081111	20081110	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
BAP EQUIVALENT-1/2 NON-DETECTS	462	923	4480	906	820 U
BAP EQUIVALENT-POSITIVE RESULTS	0.093	637	385	906	820 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	400 U	520 U	3900 U	680	820 U
BENZO(A)PYRENE	400 U	510 J	3900 U	570	820 U
BENZO(B)FLUORANTHENE	400 U	800 J	2400 J	670 J	820 U
BENZO(G,H,I)PERYLENE	400 U	420 J	1200 J	330 J	820 U
BENZO(K)FLUORANTHENE	400 U	830	2200 J	600	820 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	93 J	850	3000 J	900	820 U
DIBENZO(A,H)ANTHRACENE	400 U	520 U	3900 U	160 J	820 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	150 J	830	4800	1700	820 U
FLUORENE	400 U	50 J	3900 U	130 J	820 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	400 U	380 J	1200 J	340 J	820 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	400 U	520 U	3900 U	460 U	820 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	92 J	520 J	2000 J	920	820 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	160 J	1300 J	7200	1800	820 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	495	6704	24440	9190	0 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-74	SD-75	SD-76	SD-77	SD-79
SAMPLE ID	SD-74-01	SD-75-01	SD-76-01	SD-77-01	SD-79-01
SAMPLE DATE	20081111	20081112	20081111	20081110	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	10	10
BOTTOM DEPTH	14	14	14	14	14
PCBS (UG/KG)					
AROCLOR-1016	20 U	33 U	39 U	23 U	41 U
AROCLOR-1221	20 U	33 U	39 U	23 U	41 U
AROCLOR-1232	20 U	33 U	39 U	23 U	41 U
AROCLOR-1242	20 U	33 U	39 U	23 U	41 U
AROCLOR-1248	20 U	33 U	39 U	23 U	41 U
AROCLOR-1254	20 U	33 U	39 U	23 U	41 U
AROCLOR-1260	22	160 J	150	18 J	41 U
TOTAL AROCLOR	22	160	150	18	0 U
METALS (MG/KG)					
ANTIMONY	0.36 L	55.1 J	0.88 L	0.63 L	0.24 UL
ARSENIC	4.3	7.3	8	6.6	8
BARIUM	20.4	54.6 J	40.3	87.2	36.2
BERYLLIUM	2	1.1 J	1.2	1.5	1.5
CADMIUM	0.78	17.4	3.7	2.3	0.014 U
CHROMIUM	31	209 J	59.8	65.7	30.4
COBALT	12.6	10.3 J	12.7	8.5	13.9
COPPER	20.9	113 J	72.5	35.6	17
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	21	1370	82.7	48.6	13.5
MERCURY	0.19	1.6	0.14	0.33	0.027
MOLYBDENUM	0.79	3.3	1.4	2.8	0.65 B
NICKEL	22.5	47.9 J	32.3	21.8	22.4
SELENIUM	0.38 UL	1.4	0.85 L	0.47 UL	0.78 U
SILVER	2.2	37.2	1.5	2.8	0.15 U
THALLIUM	0.2 U	0.34 U	0.39 U	0.25 U	0.41 U
VANADIUM	31.3 K	91.8 J	45.6 K	34.6 K	44.1
ZINC	61.7	371 J	290	155	62
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	83	51	43	73	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	4600	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-80	SD-81	SD-82	SD-83	SD-84
SAMPLE ID	SD-80-01	SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE	20081114	20081114	20081114	20100820	20100820
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	12	12
BOTTOM DEPTH	14	14	14	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-80	SD-81	SD-82	SD-83	SD-84
SAMPLE ID	SD-80-01	SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE	20081114	20081114	20081114	20100820	20100820
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	12	12
BOTTOM DEPTH	14	14	14	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	980 U	510 U	780 U	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	980 U	510 U	780 U	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	980 U	510 U	780 U	16 J	29 J
ACENAPHTHYLENE	980 U	510 U	780 U	68	140
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	980 U	510 U	780 U	63	88
AZOBENZENE	NA	NA	NA	NA	NA

LOCATION	SD-80	SD-81	SD-82	SD-83	SD-84
SAMPLE ID	SD-80-01	SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE	20081114	20081114	20081114	20100820	20100820
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	12	12
BOTTOM DEPTH	14	14	14	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	980 U	576	877	373	622
BAP EQUIVALENT-POSITIVE RESULTS	980 U	14.5	58.3	373	622
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	980 U	510 U	780 U	190	330
BENZO(A)PYRENE	980 U	510 U	780 U	210	320
BENZO(B)FLUORANTHENE	980 U	130 J	400 J	380	660
BENZO(G,H,I)PERYLENE	980 U	59 J	780 U	210	350
BENZO(K)FLUORANTHENE	980 U	140 J	290 J	5.4 U	12 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	980 U	140 J	370 J	260	400
DIBENZO(A,H)ANTHRACENE	980 U	510 U	780 U	88	170
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	980 U	260 J	500 J	330	500
FLUORENE	980 U	510 U	780 U	24 J	42 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	980 U	510 U	150 J	180	330
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	980 U	510 U	780 U	30	45 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	980 U	150 J	780 U	180	260
PHENOL	NA	NA	NA	NA	NA
PYRENE	980 U	410 J	670 J	290	430
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	1289	2380	2519	4094

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-80	SD-81	SD-82	SD-83	SD-84
SAMPLE ID	SD-80-01	SD-81-01	SD-82-01	SD-83-01	SD-84-01
SAMPLE DATE	20081114	20081114	20081114	20100820	20100820
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	10	10	10	12	12
BOTTOM DEPTH	14	14	14	12	12
PCBS (UG/KG)					
AROCLOR-1016	49 U	25 U	39 U	2 U	2.2 U
AROCLOR-1221	49 U	25 U	390 UJ	2.5 U	2.8 U
AROCLOR-1232	49 U	25 U	390 UJ	2.3 U	2.5 U
AROCLOR-1242	49 U	25 U	390 UJ	2.2 U	2.4 U
AROCLOR-1248	49 U	25 U	390 UJ	1.3 U	1.4 U
AROCLOR-1254	49 U	25 U	390 UJ	1.9 U	2.1 U
AROCLOR-1260	49 U	70	270	17	2.1 U
TOTAL AROCLOR	0 U	70	270	17	0 U
METALS (MG/KG)					
ANTIMONY	0.28 UJ	0.16 UJ	0.24 UJ	0.78 L	2.4 L
ARSENIC	7.8	1.9	6.1	5.3 L	5.1 L
BARIUM	41.7	13.4	34.4	NA	NA
BERYLLIUM	1.9	0.34	1.2	1.4	2.4
CADMIUM	0.017 U	12.3	14.6	0.83 L	113 L
CHROMIUM	37.3	120	229	38.6	1750
COBALT	16.1	4.2	16.2	NA	NA
COPPER	18.9	24	92.7	27.9 L	77 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	14.8	59	143	66.5	107
MERCURY	0.027	0.23	0.52	0.35	0.32
MOLYBDENUM	0.79 B	0.21 B	0.54 B	NA	NA
NICKEL	26.4	9.1	31.5	21.7 L	29.6 L
SELENIUM	1.5	0.58	1.3	0.99 L	1.1 L
SILVER	0.18 U	1.6	2.2	0.23	0.19
THALLIUM	0.48 U	0.27 U	0.4 U	0.13	0.18
VANADIUM	46.2	11	35.6	NA	NA
ZINC	78.7	113	310	124 L	177 L
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	20000	NA	NA	22900	42300
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-85	SD-86	SD-87	SD-88	SD-89
SAMPLE ID	SD-85-01	SD-86-01	SD-87-01	SD-88-01	SD-89-01
SAMPLE DATE	20100819	20100818	20100818	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-85	SD-86	SD-87	SD-88	SD-89
SAMPLE ID	SD-85-01	SD-86-01	SD-87-01	SD-88-01	SD-89-01
SAMPLE DATE	20100819	20100818	20100818	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1.2 J	350	410	76 J	56 J
ACENAPHTHYLENE	1.1 U	150	140 J	220	140
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	0.98 U	620	660	320	200
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-85	SD-86	SD-87	SD-88	SD-89
SAMPLE ID	SD-85-01	SD-86-01	SD-87-01	SD-88-01	SD-89-01
SAMPLE DATE	20100819	20100818	20100818	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	1 U	3652	3232	1564	1001
BAP EQUIVALENT-POSITIVE RESULTS	1 U	3652	3232	1564	1001
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1.3 U	2400	2300	760	480
BENZO(A)PYRENE	1 U	2200	2000	880	520
BENZO(B)FLUORANTHENE	1.6 U	3400	3200	1600	880
BENZO(G,H,I)PERYLENE	0.99 U	2000	1600	910	610
BENZO(K)FLUORANTHENE	2 U	30 U	31 U	22 U	22 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1.2 U	2300	2000	930	510
DIBENZO(A,H)ANTHRACENE	1.1 U	700	540	370	290
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1.9 J	3900	3800	1600	850
FLUORENE	1.3 U	190	240	100 J	59 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1 U	1700	1400	770	540
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	0.86 U	100 J	89 J	180	98 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	3.4 J	2300	2300	600	350
PHENOL	NA	NA	NA	NA	NA
PYRENE	1.5 J	4000	3500	1400	830
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	8	26310	24179	10716	6413

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-85	SD-86	SD-87	SD-88	SD-89
SAMPLE ID	SD-85-01	SD-86-01	SD-87-01	SD-88-01	SD-89-01
SAMPLE DATE	20100819	20100818	20100818	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	1.9 U	2.3 U	2.3 U	4 U	4 U
AROCLOR-1221	2.4 U	2.9 U	2.9 U	5.1 U	5.1 U
AROCLOR-1232	2.1 U	2.6 U	2.6 U	4.6 U	4.6 U
AROCLOR-1242	2 U	2.5 U	2.5 U	4.4 U	4.3 U
AROCLOR-1248	1.2 U	2300	550	2.5 U	2.5 U
AROCLOR-1254	1.8 U	2.2 U	2.2 U	3.8 U	3.8 U
AROCLOR-1260	1.8 U	2300 J	800 J	1800	1500
TOTAL AROCLOR	0 U	4600	1350	1800	1500
METALS (MG/KG)					
ANTIMONY	0.11 B	2.2 J	1.3 L	0.69 J	0.95 L
ARSENIC	2.5 L	4.6	4.2	8.5 L	8.6
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1	0.99 J	1	1.8 L	2.2
CADMIUM	0.14 L	69	64.7	15.7 J	17.8 L
CHROMIUM	13.8	718 K	541	277 L	336
COBALT	NA	NA	NA	NA	NA
COPPER	9.5 L	84.6	88.7	95.2 L	107 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	7.2	211	205 K	189	187
MERCURY	0.022 J	0.31	0.37	1	0.96
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	13.2 L	31.6	31.5	42.1 L	46.5 L
SELENIUM	0.53 L	0.95	0.88	1.8 L	2 L
SILVER	0.042 J	1.8 J	2.7	6.8 L	7.1
THALLIUM	0.13	0.12	0.16	0.27 K	0.35
VANADIUM	NA	NA	NA	NA	NA
ZINC	34.5 L	452	497	392 L	441
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	25500	NA	28800	32500	27300
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	0.23 U	NA	2.4	8.8	4.6
CADMIUM	0.00026 J	NA	0.48	0.12	0.12
CHROMIUM	0.016 J	NA	4.6	2.4	2.5
COPPER	0.044	NA	0.18	0.52	0.41
LEAD	0.015 J	NA	0.73	0.75	0.58
NICKEL	0.035 J	NA	0.16	0.2	0.18
SILVER	0.0002 U	NA	0.001 J	0.0083	0.0063
ZINC	0.11 J	NA	6.9	4.1	4

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-90	SD-91	SD-92	SD-93	SD-94
SAMPLE ID	SD-90-01	SD-91-01	SD-92-01	SD-93-01	SD-94-01
SAMPLE DATE	20100817	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-90	SD-91	SD-92	SD-93	SD-94
SAMPLE ID	SD-90-01	SD-91-01	SD-92-01	SD-93-01	SD-94-01
SAMPLE DATE	20100817	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	190	2.1 U	0.95 U	12 J	3.9 U
ACENAPHTHYLENE	280	2.5 U	1.1 U	18 J	4.7 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	530	2.2 U	0.97 U	35	4 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-90	SD-91	SD-92	SD-93	SD-94
SAMPLE ID	SD-90-01	SD-91-01	SD-92-01	SD-93-01	SD-94-01
SAMPLE DATE	20100817	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	3533	2.2 U	0.99 U	296	4.1 U
BAP EQUIVALENT-POSITIVE RESULTS	3533	2.2 U	0.99 U	296	4.1 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	2100	2.8 U	1.2 U	180	5.1 U
BENZO(A)PYRENE	2300	2.2 U	0.99 U	160	4.1 U
BENZO(B)FLUORANTHENE	3600	3.5 U	1.6 U	290	6.5 U
BENZO(G,H,I)PERYLENE	1900	2.2 U	0.99 U	150	4.1 U
BENZO(K)FLUORANTHENE	9 U	4.5 U	2 U	4 U	8.3 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	2500	2.6 U	1.2 U	160	4.9 U
DIBENZO(A,H)ANTHRACENE	510	2.5 U	1.1 U	75	4.6 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	5500	2.4 U	1.1 U	300	4.4 U
FLUORENE	200	2.9 U	1.3 U	13 J	5.4 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1500	2.3 U	1 U	140	4.2 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	120	1.9 U	0.85 U	10 J	3.5 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1800	3.5 U	2.4 J	150	6.5 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	3400	2.2 U	1 U	300	4.2 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	26430	0 U	2.4	1993	0 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-90	SD-91	SD-92	SD-93	SD-94
SAMPLE ID	SD-90-01	SD-91-01	SD-92-01	SD-93-01	SD-94-01
SAMPLE DATE	20100817	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	3.3 U	1.6 U	1.9 U	1.8 U	3.1 U
AROCLOR-1221	4.2 U	2.1 U	2.4 U	2.4 U	3.9 U
AROCLOR-1232	3.8 U	1.9 U	2.1 U	2.1 U	3.5 U
AROCLOR-1242	3.6 U	1.8 U	2 U	2 U	3.4 U
AROCLOR-1248	2.1 U	1 U	1.2 U	1.2 U	1.9 U
AROCLOR-1254	3.1 U	1.6 U	1.8 U	1.8 U	2.9 U
AROCLOR-1260	1000 J	1.6 U	1.8 U	280	2.9 U
TOTAL AROCLOR	1000	0 U	0 U	280	0 U
METALS (MG/KG)					
ANTIMONY	1.4 J	0.18 J	0.13 J	0.29 L	0.076 J
ARSENIC	7.6	3.6	7.2	3.9	4.2
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.6	2.5	1.8	1	1.7
CADMIUM	12.5	0.18	0.2	2.7	0.37
CHROMIUM	212	17.6	16.1	37.5	26
COBALT	NA	NA	NA	NA	NA
COPPER	130	23	16.6	23.3	18.4
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	257 J	5.5 J	3.6 K	36.6 K	9 J
MERCURY	2	0.0072 U	0.0082 U	0.11	0.028 J
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	41.8	20.4	16.9	13.9	18.7
SELENIUM	1.8	0.66	0.66	0.6	1
SILVER	8.9	0.025 J	0.022 J	0.55	0.065 J
THALLIUM	0.26 J	0.065 J	0.063 J	0.07 J	0.15 J
VANADIUM	NA	NA	NA	NA	NA
ZINC	386	44.7	46.6	125	56
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	35900	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	19	NA	NA	NA	NA
CADMIUM	0.085	NA	NA	NA	NA
CHROMIUM	1.6	NA	NA	NA	NA
COPPER	0.037	NA	NA	NA	NA
LEAD	0.66	NA	NA	NA	NA
NICKEL	0.18	NA	NA	NA	NA
SILVER	0.00095 J	NA	NA	NA	NA
ZINC	4.2	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-95	SD-95	SD-95	SD-96	SD-96
SAMPLE ID	SD-95-01	SD-95-01-AVG	SD-95-01-D	SD-96-01	SD-96-01-AVG
SAMPLE DATE	20100817	20100817	20100817	20100819	20100819
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

LOCATION	SD-95	SD-95	SD-95	SD-96	SD-96
SAMPLE ID	SD-95-01	SD-95-01-AVG	SD-95-01-D	SD-96-01	SD-96-01-AVG
SAMPLE DATE	20100817	20100817	20100817	20100819	20100819
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	24 J	27 J	30 J	59 J	57 J
ACENAPHTHYLENE	50	56	62	160	145
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	89	94.5	100	210	210
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-95	SD-95	SD-95	SD-96	SD-96
SAMPLE ID	SD-95-01	SD-95-01-AVG	SD-95-01-D	SD-96-01	SD-96-01-AVG
SAMPLE DATE	20100817	20100817	20100817	20100819	20100819
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	612	626	639	1169	1072
BAP EQUIVALENT-POSITIVE RESULTS	612	626	639	1169	1072
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	330	325	320	560	535
BENZO(A)PYRENE	350	355	360	640	575
BENZO(B)FLUORANTHENE	580	610	640	1100	1000
BENZO(G,H,I)PERYLENE	360	375	390	680	640
BENZO(K)FLUORANTHENE	8.4 U	8.4 U	8.4 U	22 U	21.5 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	360	365	370	610	555
DIBENZO(A,H)ANTHRACENE	140	145	150	300	285
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	470	475	480	1100	1030
FLUORENE	34 J	33.5 J	33 J	77 J	69 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	310	320	330	620	580
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	50	50	50	130	125
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	220	215	210	410	395
PHENOL	NA	NA	NA	NA	NA
PYRENE	630	620	610	1100	995
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	3997	4066	4135	7756	7196

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-95	SD-95	SD-95	SD-96	SD-96
SAMPLE ID	SD-95-01	SD-95-01-AVG	SD-95-01-D	SD-96-01	SD-96-01-AVG
SAMPLE DATE	20100817	20100817	20100817	20100819	20100819
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	3.9 U	3.9 U	3.9 U	3.9 U	3.85 U
AROCLOR-1221	5 U	5 U	5 U	5 U	4.95 U
AROCLOR-1232	4.5 U	4.5 U	4.5 U	4.5 U	4.45 U
AROCLOR-1242	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
AROCLOR-1248	2.5 U	2.5 U	2.5 U	2.5 U	2.45 U
AROCLOR-1254	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
AROCLOR-1260	610	495 J	380 J	1900	1850
TOTAL AROCLOR	610	495	380	1900	1850
METALS (MG/KG)					
ANTIMONY	0.67 L	0.685 L	0.7 L	0.61 J	0.805 L
ARSENIC	8.3	8.35	8.4	7.5 L	8.25 L
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	2.1	2.15	2.2	1.8 L	2.05 L
CADMIUM	12	12.15	12.3	14.9 J	16.3 L
CHROMIUM	241	245.5	250	276 L	304.5 L
COBALT	NA	NA	NA	NA	NA
COPPER	90.9	91.15	91.4	121 L	113.5 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	174 K	175.5 K	177 K	148	166
MERCURY	0.66	0.64	0.62	0.9	0.88
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	42.7	43.05	43.4	39.4 L	43.05 L
SELENIUM	1.9	2	2.1	1.8 L	1.95 L
SILVER	4.6	4.7	4.8	6.3 L	6.8 L
THALLIUM	0.28	0.29	0.3	0.28 K	0.31 K
VANADIUM	NA	NA	NA	NA	NA
ZINC	382	384	386	377 L	403.5 L
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-01-D	SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-01-D	SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	55 J	22 J	62 J	7.9 U	4 U
ACENAPHTHYLENE	130	47 J	150	9.4 U	4.8 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	210	75 J	240	8 U	4.1 U
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-01-D	SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	976	409	1254	8.2 U	4.2 U
BAP EQUIVALENT-POSITIVE RESULTS	976	409	1254	8.2 U	4.2 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	510	190 J	620	10 U	5.2 U
BENZO(A)PYRENE	510	210 J	700	8.2 U	4.2 U
BENZO(B)FLUORANTHENE	900	370 J	1300	13 U	6.6 U
BENZO(G,H,I)PERYLENE	600	240 J	750	8.1 U	4.2 U
BENZO(K)FLUORANTHENE	21 U	12 UJ	20 U	17 U	8.4 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	500	220 J	750	9.7 U	5 U
DIBENZO(A,H)ANTHRACENE	270	120 J	300	9.1 U	4.6 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	960	500 J	1200	8.7 U	24 J
FLUORENE	61 J	37 J	92 J	11 U	5.5 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	540	230 J	610	8.4 U	4.3 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	120	86 J	160	7 U	3.6 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	380	190 J	490	13 U	15 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	890	360 J	1100	8.3 U	17 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	6636	2897	8524	0 U	56

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-01-D	SD-97-01	SD-98-01	SD-99-01	SD-100-01
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	3.8 U	4.5 UJ	3.7 U	3 U	3 U
AROCLOR-1221	4.9 U	5.7 UJ	4.7 U	3.8 U	3.9 U
AROCLOR-1232	4.4 U	5.1 UJ	4.2 U	3.4 U	3.5 U
AROCLOR-1242	4.2 U	4.9 UJ	4 U	3.3 U	3.3 U
AROCLOR-1248	2.4 U	2.8 UJ	2.3 U	1.9 U	1.9 U
AROCLOR-1254	3.7 U	4.3 UJ	3.5 U	2.8 U	2.9 U
AROCLOR-1260	1800	210 J	920	2.8 U	2.9 U
TOTAL AROCLOR	1800	210	920	0 U	0 U
METALS (MG/KG)					
ANTIMONY	1 L	1 J	0.68 J	0.076 B	0.14 B
ARSENIC	9	11 J	8.2 L	5.4	4.1 L
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	2.3	2.6 J	2 L	1.7	1.3 L
CADMIUM	17.7 L	22 J	19 J	0.4 L	0.28 J
CHROMIUM	333	423 J	336 L	27.7	25.1 L
COBALT	NA	NA	NA	NA	NA
COPPER	106 L	110 J	99.6 L	20.1 L	18.4 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	184	149 J	169	12.5	14.6
MERCURY	0.86	0.99 J	0.92	0.035 J	0.074
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	46.7 L	46.4 J	44.1 L	20.5 L	19.3 L
SELENIUM	2.1 L	2.2 J	2 L	1.2 L	0.96 L
SILVER	7.3	5 J	6.6 L	0.068 J	0.062 J
THALLIUM	0.34	0.3 J	0.34	0.17 K	0.19 K
VANADIUM	NA	NA	NA	NA	NA
ZINC	430	439 J	421 L	67.4	62.1 L
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	34900	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	0.38 U	NA
CADMIUM	NA	NA	NA	0.0014 J	NA
CHROMIUM	NA	NA	NA	0.033	NA
COPPER	NA	NA	NA	0.06	NA
LEAD	NA	NA	NA	0.024	NA
NICKEL	NA	NA	NA	0.047	NA
SILVER	NA	NA	NA	0.00033 U	NA
ZINC	NA	NA	NA	0.37	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-103	SD-104	SD-105
SAMPLE ID	SD-101-01	SD-102-01	SD-103-01	SD-104-01	SD-105-01
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-103	SD-104	SD-105
SAMPLE ID	SD-101-01	SD-102-01	SD-103-01	SD-104-01	SD-105-01
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	19 J	10 U	1.1 U	4.2 U	23 J
ACENAPHTHYLENE	31 J	36 J	1.3 U	5 U	13 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	57 J	44 J	1.1 U	4.3 U	61 J
AZOBENZENE	NA	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-103	SD-104	SD-105
SAMPLE ID	SD-101-01	SD-102-01	SD-103-01	SD-104-01	SD-105-01
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
BAP EQUIVALENT-1/2 NON-DETECTS	380	238	1.1 U	4.4 U	565
BAP EQUIVALENT-POSITIVE RESULTS	380	232	1.1 U	4.4 U	565
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	170	150	1.4 U	5.5 U	200
BENZO(A)PYRENE	180	150	1.1 U	4.4 U	240
BENZO(B)FLUORANTHENE	310	350	1.7 U	6.9 U	480
BENZO(G,H,I)PERYLENE	230	310	1.1 U	4.4 U	360
BENZO(K)FLUORANTHENE	20 U	22 U	2.2 U	8.9 U	22 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	190	180	1.3 U	5.2 U	240
DIBENZO(A,H)ANTHRACENE	130	12 U	1.2 U	4.9 U	220
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	260	310	1.8 J	4.8 J	290
FLUORENE	17 J	34 J	1.5 U	5.8 U	24 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	220	320	1.1 U	4.5 U	370
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	44 J	53 J	0.96 U	3.8 U	58 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	120	130	2.8 J	7 U	140
PHENOL	NA	NA	NA	NA	NA
PYRENE	310	330	1.1 U	4.7 J	440
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	2288	2397	4.6	9.5	3146

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-103	SD-104	SD-105
SAMPLE ID	SD-101-01	SD-102-01	SD-103-01	SD-104-01	SD-105-01
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	12	12	12	12	12
BOTTOM DEPTH	12	12	12	12	12
PCBS (UG/KG)					
AROCLOR-1016	3.6 U	4.1 U	2.1 U	3.3 U	4.1 U
AROCLOR-1221	4.6 U	5.2 U	2.6 U	4.2 U	5.3 U
AROCLOR-1232	4.2 U	4.7 U	2.4 U	3.8 U	4.8 U
AROCLOR-1242	4 U	4.4 U	2.3 U	3.6 U	4.5 U
AROCLOR-1248	2.3 U	2.6 U	1.3 U	2.1 U	2.6 U
AROCLOR-1254	3.5 U	3.9 U	2 U	3.1 U	3.9 U
AROCLOR-1260	240	250	2 U	3.1 U	230
TOTAL AROCLOR	240	250	0 U	0 U	230
METALS (MG/KG)					
ANTIMONY	0.59 L	0.68 J	0.057 B	0.094 B	0.65 J
ARSENIC	8.7	9.8	2.3	5.6	10.8
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.8	2.1 J	0.73 J	1.6 J	1.9
CADMIUM	12.6	11.2	0.19	0.42	5.7
CHROMIUM	247	251 K	14.1 K	31.7 K	153 K
COBALT	NA	NA	NA	NA	NA
COPPER	98.8	111	7.8	22.1	142
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	158 K	168	5.9	17.1	144
MERCURY	0.6	0.73	0.019 J	0.048	0.56
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	39.8	45.1	10.5	23	44.3
SELENIUM	1.7	1.8	0.51	1.1	1.9
SILVER	3.1	4.3 J	0.02 J	0.074 J	2.2 J
THALLIUM	0.27	0.3	0.096	0.2	0.26
VANADIUM	NA	NA	NA	NA	NA
ZINC	371	406	33.4	72.3	389
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	26000	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	10.5	NA	NA	NA	NA
CADMIUM	0.084	NA	NA	NA	NA
CHROMIUM	1.5	NA	NA	NA	NA
COPPER	0.41	NA	NA	NA	NA
LEAD	0.51	NA	NA	NA	NA
NICKEL	0.17	NA	NA	NA	NA
SILVER	0.004	NA	NA	NA	NA
ZINC	3.4	NA	NA	NA	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-106
SAMPLE ID	SD-106-01
SAMPLE DATE	20100818
SAMPLE CODE	NORMAL
MATRIX	SD
SAMPLE TYPE	NORMAL
SUBMATRIX	SB
TOP DEPTH	12
BOTTOM DEPTH	12
VOLATILES (UG/KG)	
1,1,1,2-TETRACHLOROETHANE	NA
1,1,1-TRICHLOROETHANE	NA
1,1,2,2-TETRACHLOROETHANE	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA
1,1-DICHLOROETHANE	NA
1,1-DICHLOROETHENE	NA
1,1-DICHLOROPROPENE	NA
1,2,3-TRICHLOROBENZENE	NA
1,2,3-TRICHLOROPROPANE	NA
1,2,3-TRIMETHYLBENZENE	NA
1,2,4-TRICHLOROBENZENE	NA
1,2,4-TRIMETHYLBENZENE	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA
1,2-DIBROMOETHANE	NA
1,2-DICHLOROBENZENE	NA
1,2-DICHLOROETHANE	NA
1,2-DICHLOROPROPANE	NA
1,3-DICHLOROBENZENE	NA
1,3-DICHLOROPROPANE	NA
1,4-DICHLOROBENZENE	NA
2,2-DICHLOROPROPANE	NA
2-BUTANONE	NA
2-CHLOROETHYL VINYL ETHER	NA
2-CHLOROTOLUENE	NA
2-HEXANONE	NA
4-CHLOROTOLUENE	NA
4-ISOPROPYLTOLUENE	NA
4-METHYL-2-PENTANONE	NA
ACETONE	NA
BENZENE	NA
BROMOBENZENE	NA
BROMOCHLOROMETHANE	NA
BROMODICHLOROMETHANE	NA
BROMOFORM	NA
BROMOMETHANE	NA
CARBON DISULFIDE	NA
CARBON TETRACHLORIDE	NA
CHLOROBENZENE	NA
CHLORODIBROMOMETHANE	NA
CHLOROETHANE	NA
CHLOROFORM	NA
CHLOROMETHANE	NA
CIS-1,2-DICHLOROETHENE	NA
CIS-1,3-DICHLOROPROPENE	NA
DIBROMOMETHANE	NA
DICHLORODIFLUOROMETHANE	NA
DIISOPROPYL ETHER	NA
ETHYL TERT-BUTYL ETHER	NA
ETHYLBENZENE	NA
HEXACHLOROBUTADIENE	NA
ISOPROPYLBENZENE	NA
M+P-XYLENES	NA
METHYL TERT-BUTYL ETHER	NA
METHYLENE CHLORIDE	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	**SD-106**
SAMPLE ID	**SD-106-01**
SAMPLE DATE	**20100818**
SAMPLE CODE	**NORMAL**
MATRIX	**SD**
SAMPLE TYPE	**NORMAL**
SUBMATRIX	**SB**
TOP DEPTH	**12**
BOTTOM DEPTH	**12**
NAPHTHALENE	NA
N-BUTYLBENZENE	NA
N-PROPYLBENZENE	NA
O-XYLENE	NA
SEC-BUTYLBENZENE	NA
STYRENE	NA
TERT-AMYL METHYL ETHER	NA
TERT-BUTYLBENZENE	NA
TERTIARY-BUTYL ALCOHOL	NA
TETRACHLOROETHENE	NA
TOLUENE	NA
TOTAL 1,2-DICHLOROETHENE	NA
TOTAL XYLENES	NA
TRANS-1,2-DICHLOROETHENE	NA
TRANS-1,3-DICHLOROPROPENE	NA
TRICHLOROETHENE	NA
TRICHLOROFLUOROMETHANE	NA
VINYL ACETATE	NA
VINYL CHLORIDE	NA
SEMIVOLATILES (UG/KG)	
1,2,4-TRICHLOROBENZENE	NA
1,2-DICHLOROBENZENE	NA
1,3-DICHLOROBENZENE	NA
1,4-DICHLOROBENZENE	NA
1,4-DIOXANE	NA
1-METHYLNAPHTHALENE	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA
2,4,5-TRICHLOROPHENOL	NA
2,4,6-TRICHLOROPHENOL	NA
2,4-DICHLOROPHENOL	NA
2,4-DIMETHYLPHENOL	NA
2,4-DINITROPHENOL	NA
2,4-DINITROTOLUENE	NA
2,6-DINITROTOLUENE	NA
2-CHLORONAPHTHALENE	NA
2-CHLOROPHENOL	NA
2-METHYLNAPHTHALENE	NA
2-METHYLPHENOL	NA
2-NITROANILINE	NA
2-NITROPHENOL	NA
3&4-METHYLPHENOL	NA
3,3'-DICHLOROBENZIDINE	NA
3-NITROANILINE	NA
4,6-DINITRO-2-METHYLPHENOL	NA
4-BROMOPHENYL PHENYL ETHER	NA
4-CHLORO-3-METHYLPHENOL	NA
4-CHLOROANILINE	NA
4-CHLOROPHENYL PHENYL ETHER	NA
4-NITROANILINE	NA
4-NITROPHENOL	NA
ACENAPHTHENE	8.8 U
ACENAPHTHYLENE	10 U
ANILINE	NA
ANTHRACENE	8.9 U
AZOBENZENE	NA

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	**SD-106**
SAMPLE ID	**SD-106-01**
SAMPLE DATE	**20100818**
SAMPLE CODE	**NORMAL**
MATRIX	**SD**
SAMPLE TYPE	**NORMAL**
SUBMATRIX	**SB**
TOP DEPTH	**12**
BOTTOM DEPTH	**12**
BAP EQUIVALENT-1/2 NON-DETECTS	9.1 U
BAP EQUIVALENT-POSITIVE RESULTS	9.1 U
BENZIDINE	NA
BENZO(A)ANTHRACENE	11 U
BENZO(A)PYRENE	9.1 U
BENZO(B)FLUORANTHENE	14 U
BENZO(G,H,I)PERYLENE	9.1 U
BENZO(K)FLUORANTHENE	18 U
BENZOIC ACID	NA
BENZYL ALCOHOL	NA
BIS(2-CHLOROETHOXY)METHANE	NA
BIS(2-CHLOROETHYL)ETHER	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA
BUTYL BENZYL PHTHALATE	NA
CARBAZOLE	NA
CHRYSENE	11 U
DIBENZO(A,H)ANTHRACENE	10 U
DIBENZOFURAN	NA
DIETHYL PHTHALATE	NA
DIMETHYL PHTHALATE	NA
DI-N-BUTYL PHTHALATE	NA
DI-N-OCTYL PHTHALATE	NA
FLUORANTHENE	9.8 U
FLUORENE	12 U
HEXACHLOROBENZENE	NA
HEXACHLOROBUTADIENE	NA
HEXACHLOROCYCLOPENTADIENE	NA
HEXACHLOROETHANE	NA
INDENO(1,2,3-CD)PYRENE	9.4 U
ISOPHORONE	NA
NAPHTHALENE	7.9 U
NITROBENZENE	NA
N-NITROSODIMETHYLAMINE	NA
N-NITROSO-DI-N-PROPYLAMINE	NA
N-NITROSODIPHENYLAMINE	NA
PENTACHLOROPHENOL	NA
PHENANTHRENE	15 U
PHENOL	NA
PYRENE	9.2 U
PYRIDINE	NA
TOTAL PAHS	0 U

Table C-2
Summary of Analytical Results for Subsurface Sediment, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-106
SAMPLE ID	SD-106-01
SAMPLE DATE	20100818
SAMPLE CODE	NORMAL
MATRIX	SD
SAMPLE TYPE	NORMAL
SUBMATRIX	SB
TOP DEPTH	12
BOTTOM DEPTH	12
PCBS (UG/KG)	
AROCLOR-1016	3.4 U
AROCLOR-1221	4.3 U
AROCLOR-1232	3.9 U
AROCLOR-1242	3.7 U
AROCLOR-1248	2.2 U
AROCLOR-1254	3.2 U
AROCLOR-1260	3.2 U
TOTAL AROCLOR	0 U
METALS (MG/KG)	
ANTIMONY	0.087 B
ARSENIC	5 L
BARIUM	NA
BERYLLIUM	1.4 L
CADMIUM	0.26 J
CHROMIUM	26.6 L
COBALT	NA
COPPER	16.5 L
HEXAVALENT CHROMIUM	NA
LEAD	12.7
MERCURY	0.052
MOLYBDENUM	NA
NICKEL	19.6 L
SELENIUM	0.98 L
SILVER	0.059 J
THALLIUM	0.18 K
VANADIUM	NA
ZINC	65.8 L
METALS (UG/KG)	
DIBUTYLTIN	NA
MONOBUTYLTIN	NA
TETRABUTYLTIN	NA
TRIBUTYLTIN	NA
MISCELLANEOUS PARAMETERS (%)	
PERCENT SOLIDS	NA
MISCELLANEOUS PARAMETERS (MG/KG)	
TOTAL ORGANIC CARBON	NA
AVS/SEM (UMOLES/G)	
ACID VOLATILE SULFIDE	NA
CADMIUM	NA
CHROMIUM	NA
COPPER	NA
LEAD	NA
NICKEL	NA
SILVER	NA
ZINC	NA

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
R = Rejected
SB = Subsurface sediment
SD = Sediment
U = Non-detected

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-13	SD-14
SAMPLE ID	BOWLEYS_QUARTERS-02	MIDDLE_RIVER_DOWNSTREAM-02	MARSHY_POINT-02	SD-13-02	SD-14-02
SAMPLE DATE	20100821	20100820	20100821	20051020	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	12 U	10 UL
1,1,1-TRICHLOROETHANE	NA	NA	NA	12 U	10 UL
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	12 U	10 UL
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	12 U	10 UL
1,1-DICHLOROETHANE	NA	NA	NA	12 U	10 UL
1,1-DICHLOROETHENE	NA	NA	NA	12 U	10 UL
1,1-DICHLOROPROPENE	NA	NA	NA	12 U	10 UL
1,2,3-TRICHLOROBENZENE	NA	NA	NA	12 U	10 UL
1,2,3-TRICHLOROPROPANE	NA	NA	NA	12 U	10 UL
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	12 U	10 UL
1,2,4-TRICHLOROBENZENE	NA	NA	NA	12 U	10 UL
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	12 U	10 UL
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	12 U	10 UL
1,2-DIBROMOETHANE	NA	NA	NA	12 U	10 UL
1,2-DICHLOROBENZENE	NA	NA	NA	12 U	10 UL
1,2-DICHLOROETHANE	NA	NA	NA	12 U	10 UL
1,2-DICHLOROPROPANE	NA	NA	NA	12 U	10 UL
1,3-DICHLOROBENZENE	NA	NA	NA	12 U	10 UL
1,3-DICHLOROPROPANE	NA	NA	NA	12 U	10 UL
1,4-DICHLOROBENZENE	NA	NA	NA	12 U	10 UL
2,2-DICHLOROPROPANE	NA	NA	NA	12 U	10 UL
2-BUTANONE	NA	NA	NA	61 UR	52 UR
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	12 U	10 UL
2-CHLOROTOLUENE	NA	NA	NA	12 U	10 UL
2-HEXANONE	NA	NA	NA	61 U	52 UL
4-CHLOROTOLUENE	NA	NA	NA	12 U	10 UL
4-ISOPROPYLTOLUENE	NA	NA	NA	12 U	10 UL
4-METHYL-2-PENTANONE	NA	NA	NA	61 U	52 UL
ACETONE	NA	NA	NA	120 B	52 B
BENZENE	NA	NA	NA	12 U	10 UL
BROMOBENZENE	NA	NA	NA	12 U	10 UL
BROMOCHLOROMETHANE	NA	NA	NA	12 U	10 UL
BROMODICHLOROMETHANE	NA	NA	NA	12 U	10 UL
BROMOFORM	NA	NA	NA	12 U	10 UL
BROMOMETHANE	NA	NA	NA	24 U	21 UL
CARBON DISULFIDE	NA	NA	NA	12 U	10 UL
CARBON TETRACHLORIDE	NA	NA	NA	12 U	10 UL
CHLOROBENZENE	NA	NA	NA	12 U	10 UL
CHLORODIBROMOMETHANE	NA	NA	NA	12 U	10 UL
CHLOROETHANE	NA	NA	NA	24 U	21 UL
CHLOROFORM	NA	NA	NA	12 U	10 UL
CHLOROMETHANE	NA	NA	NA	24 U	21 UL
CIS-1,2-DICHLOROETHENE	NA	NA	NA	12 U	10 UL
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	12 U	10 UL
DIBROMOMETHANE	NA	NA	NA	12 U	10 UL
DICHLORODIFLUOROMETHANE	NA	NA	NA	24 U	21 UL
DIISOPROPYL ETHER	NA	NA	NA	12 U	10 UL
ETHYL TERT-BUTYL ETHER	NA	NA	NA	12 U	10 UL
ETHYLBENZENE	NA	NA	NA	12 U	10 UL
HEXACHLOROBUTADIENE	NA	NA	NA	12 U	10 UL

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-13	SD-14
SAMPLE ID	BOWLEYS_QUARTERS-02	MIDDLE_RIVER_DOWNSTREAM-02	MARSHY_POINT-02	SD-13-02	SD-14-02
SAMPLE DATE	20100821	20100820	20100821	20051020	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	38 K	10 UL
M+P-XYLENES	NA	NA	NA	24 U	21 UL
METHYL TERT-BUTYL ETHER	NA	NA	NA	24 U	21 UL
METHYLENE CHLORIDE	NA	NA	NA	12 B	10 B
NAPHTHALENE	NA	NA	NA	12 U	10 UL
N-BUTYLBENZENE	NA	NA	NA	12 U	10 UL
N-PROPYLBENZENE	NA	NA	NA	12 U	10 UL
O-XYLENE	NA	NA	NA	12 U	10 UL
SEC-BUTYLBENZENE	NA	NA	NA	180 K	10 UL
STYRENE	NA	NA	NA	12 U	10 B
TERT-AMYL METHYL ETHER	NA	NA	NA	12 U	10 UL
TERT-BUTYLBENZENE	NA	NA	NA	12 U	10 UL
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	24 UR	21 UR
TETRACHLOROETHENE	NA	NA	NA	12 U	10 UL
TOLUENE	NA	NA	NA	12 U	10 UL
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	24 U	21 UL
TOTAL XYLENES	NA	NA	NA	36 U	31 UL
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	12 U	10 UL
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	12 U	10 UL
TRICHLOROETHENE	NA	NA	NA	12 U	10 UL
TRICHLOROFLUOROMETHANE	NA	NA	NA	24 U	21 UL
VINYL ACETATE	NA	NA	NA	12 U	10 UL
VINYL CHLORIDE	NA	NA	NA	24 U	21 UL
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	800 U	680 U
1,2-DICHLOROBENZENE	NA	NA	NA	800 U	680 U
1,3-DICHLOROBENZENE	NA	NA	NA	800 U	680 U
1,4-DICHLOROBENZENE	NA	NA	NA	800 U	680 U
1,4-DIOXANE	NA	NA	NA	800 U	680 U
1-METHYLNAPHTHALENE	NA	NA	NA	800 U	680 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	800 U	680 U
2,4,5-TRICHLOROPHENOL	NA	NA	NA	2000 U	1700 U
2,4,6-TRICHLOROPHENOL	NA	NA	NA	800 U	680 U
2,4-DICHLOROPHENOL	NA	NA	NA	800 U	680 U
2,4-DIMETHYLPHENOL	NA	NA	NA	800 U	680 U
2,4-DINITROPHENOL	NA	NA	NA	2000 U	1700 U
2,4-DINITROTOLUENE	NA	NA	NA	800 U	680 U
2,6-DINITROTOLUENE	NA	NA	NA	800 U	680 U
2-CHLORONAPHTHALENE	NA	NA	NA	800 U	680 U
2-CHLOROPHENOL	NA	NA	NA	800 U	680 U
2-METHYLNAPHTHALENE	NA	NA	NA	520 J	680 U
2-METHYLPHENOL	NA	NA	NA	800 U	680 U
2-NITROANILINE	NA	NA	NA	2000 U	1700 U
2-NITROPHENOL	NA	NA	NA	800 U	680 U
3&4-METHYLPHENOL	NA	NA	NA	800 U	680 U
3,3'-DICHLOROBENZIDINE	NA	NA	NA	800 UJ	680 U
3-NITROANILINE	NA	NA	NA	2000 U	1700 U
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	2000 UJ	1700 U
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	800 UJ	680 U
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	800 U	680 U
4-CHLOROANILINE	NA	NA	NA	800 U	680 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-13	SD-14
SAMPLE ID	BOWLEYS_QUARTERS-02	MIDDLE_RIVER_DOWNSTREAM-02	MARSHY_POINT-02	SD-13-02	SD-14-02
SAMPLE DATE	20100821	20100820	20100821	20051020	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	800 U	680 U
4-NITROANILINE	NA	NA	NA	2000 U	1700 U
4-NITROPHENOL	NA	NA	NA	2000 U	1700 U
ACENAPHTHENE	3.9 U	2.6 U	4.4 U	600 J	680 U
ACENAPHTHYLENE	4.7 U	3.1 U	5.3 U	110 J	680 U
ANILINE	NA	NA	NA	800 U	680 U
ANTHRACENE	4 U	4.8 J	4.5 U	1400 J	680 U
BAP EQUIVALENT	NA	NA	NA	8963	680 U
BAP EQUIVALENT-1/2 NON-DETECTS	4.1 U	2.7 U	4.6 U	8963	680 U
BAP EQUIVALENT-POSITIVE RESULTS	4.1 U	2.7 U	4.6 U	8963	680 U
BENZIDINE	NA	NA	NA	2000 UJ	1700 U
BENZO(A)ANTHRACENE	5.1 U	3.4 U	5.8 U	5800 J	680 U
BENZO(A)PYRENE	4.1 U	2.7 U	4.6 U	6000 J	680 U
BENZO(B)FLUORANTHENE	6.5 U	4.3 U	7.2 U	8400 J	680 U
BENZO(G,H,I)PERYLENE	4.1 U	2.7 U	4.6 U	3900 J	680 U
BENZO(K)FLUORANTHENE	8.3 U	5.5 U	9.3 U	3400 J	680 U
BENZOIC ACID	NA	NA	NA	2000 U	1700 U
BENZYL ALCOHOL	NA	NA	NA	800 UJ	680 UJ
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	800 U	680 U
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	800 U	680 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	350 J	680 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	800 UJ	680 U
CARBAZOLE	NA	NA	NA	400 J	680 U
CHRYSENE	4.9 U	3.3 U	5.5 U	8900 J	680 U
DIBENZO(A,H)ANTHRACENE	4.6 U	3 U	5.1 U	1100 J	680 U
DIBENZOFURAN	NA	NA	NA	330 J	680 U
DIETHYL PHTHALATE	NA	NA	NA	800 U	680 U
DIMETHYL PHTHALATE	NA	NA	NA	800 U	680 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	800 UJ	680 U
DI-N-OCTYL PHTHALATE	NA	NA	NA	800 UJ	680 U
FLUORANTHENE	4.4 U	12 J	4.9 U	9700 J	680 U
FLUORENE	5.4 U	3.6 U	6.1 U	920	680 U
HEXACHLOROBENZENE	NA	NA	NA	800 UJ	680 U
HEXACHLOROBUTADIENE	NA	NA	NA	800 U	680 U
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	800 U	680 U
HEXACHLOROETHANE	NA	NA	NA	800 U	680 U
INDENO(1,2,3-CD)PYRENE	4.2 U	2.8 U	4.7 U	4000 J	680 U
ISOPHORONE	NA	NA	NA	800 U	680 U
NAPHTHALENE	3.5 U	2.4 U	4 U	860	680 U
NITROBENZENE	NA	NA	NA	800 U	680 U
N-NITROSODIMETHYLAMINE	NA	NA	NA	800 U	680 U
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	800 U	680 U
N-NITROSODIPHENYLAMINE	NA	NA	NA	800 UJ	680 U
PENTACHLOROPHENOL	NA	NA	NA	2000 UJ	1700 U
PHENANTHRENE	6.5 U	11 J	7.3 U	6200 J	680 U
PHENOL	NA	NA	NA	800 U	680 U
PYRENE	4.2 U	8.9 J	4.7 U	24000 J	680 U
PYRIDINE	NA	NA	NA	800 U	680 U
TOTAL PAHS	0 U	36.7	0 U	85810	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-13	SD-14
SAMPLE ID	BOWLEYS_QUARTERS-02	MIDDLE_RIVER_DOWNSTREAM-02	MARSHY_POINT-02	SD-13-02	SD-14-02
SAMPLE DATE	20100821	20100820	20100821	20051020	20051020
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	3.1 U	3.4 U	3.4 U	41 U	35 U
AROCLOR-1221	3.9 U	4.4 U	4.4 U	41 U	35 U
AROCLOR-1232	3.5 U	3.9 U	3.9 U	41 U	35 U
AROCLOR-1242	3.4 U	3.7 U	3.8 U	41 U	35 U
AROCLOR-1248	1.9 U	2.2 U	2.2 U	41 U	35 U
AROCLOR-1254	2.9 U	3.2 U	3.3 U	41 U	35 U
AROCLOR-1260	2.9 U	3.2 U	3.3 U	670	35 U
TOTAL AROCLOR	0 U	0 U	0 U	670	0 U
METALS (MG/KG)					
ANTIMONY	0.073 J	0.7 L	0.096 J	3.4	0.65 U
ARSENIC	5	7.7 L	6.9	5.6	3.8
BARIUM	NA	NA	NA	112	26.3
BERYLLIUM	1	1.6	1.5	2	1.7
CADMIUM	0.28	0.69 L	0.36	21.8	0.52
CHROMIUM	23.1	37	33.2	499	35.6
COBALT	NA	NA	NA	13.9	9.5
COPPER	15.6	26.2 L	16.2	67.4	16
HEXAVALENT CHROMIUM	NA	NA	NA	1.2 UL	1 UL
LEAD	14.2	27.6	18.7	169	11
MERCURY	0.05	0.083	0.053	1.9 L	0.04 L
MOLYBDENUM	NA	NA	NA	2.7	1.2
NICKEL	18.7	25.6 L	27.6	34.2	17.4
SELENIUM	1	1.3 L	1.3	0.57 L	0.57 UL
SILVER	0.064 J	0.11 J	0.078 J	28.6	2 L
THALLIUM	0.18	0.23	0.21	1.3	0.97 U
VANADIUM	NA	NA	NA	51.7	26.2
ZINC	61.1	93.5 L	95.9	452	64.5
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	41	48
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	24600	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-16	SD-19	SD-27	SD-28	SD-29
SAMPLE ID	SD-16-02	SD-19-02	SD-27-02	SD-28-02	SD-29-02
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	16 U	7 U	7 U	11 U	9 U
1,1,1-TRICHLOROETHANE	16 U	7 U	7 U	11 U	9 U
1,1,2,2-TETRACHLOROETHANE	16 U	7 U	7 U	11 U	9 U
1,1,2-TRICHLOROTRIFLUOROETHANE	16 U	7 U	7 U	11 U	9 U
1,1-DICHLOROETHANE	16 U	7 U	7 U	11 U	9 U
1,1-DICHLOROETHENE	16 U	7 U	7 U	11 U	9 U
1,1-DICHLOROPROPENE	16 U	7 U	7 U	11 U	9 U
1,2,3-TRICHLOROBENZENE	16 U	7 U	7 U	11 U	9 U
1,2,3-TRICHLOROPROPANE	16 U	7 U	7 U	11 U	9 U
1,2,3-TRIMETHYLBENZENE	16 U	7 U	7 U	11 U	9 U
1,2,4-TRICHLOROBENZENE	16 U	7 U	7 U	11 U	9 U
1,2,4-TRIMETHYLBENZENE	16 U	7 U	7 U	11 U	9 U
1,2-DIBROMO-3-CHLOROPROPANE	16 U	7 U	7 U	11 U	9 U
1,2-DIBROMOETHANE	16 U	7 U	7 U	11 U	9 U
1,2-DICHLOROBENZENE	16 U	7 U	7 U	11 U	9 U
1,2-DICHLOROETHANE	16 U	7 U	7 U	11 U	9 U
1,2-DICHLOROPROPANE	16 U	7 U	7 U	11 U	9 U
1,3-DICHLOROBENZENE	16 U	7 U	7 U	11 U	9 U
1,3-DICHLOROPROPANE	16 U	7 U	7 U	11 U	9 U
1,4-DICHLOROBENZENE	16 U	7 U	7 U	11 U	9 U
2,2-DICHLOROPROPANE	16 U	7 U	7 U	11 U	9 U
2-BUTANONE	40 J	21 J	34 UR	13 J	43 U
2-CHLOROETHYL VINYL ETHER	16 U	7 U	7 U	11 U	9 U
2-CHLOROTOLUENE	16 U	7 U	7 U	11 U	9 U
2-HEXANONE	78 U	36 U	34 U	56 U	43 U
4-CHLOROTOLUENE	16 U	7 U	7 U	11 U	9 U
4-ISOPROPYLTOLUENE	16 U	7 U	7 U	11 U	9 U
4-METHYL-2-PENTANONE	78 U	36 U	34 U	56 U	43 U
ACETONE	240	110	21 B	45 B	54 B
BENZENE	16 U	7 U	7 U	11 U	9 U
BROMOBENZENE	16 U	7 U	7 U	11 U	9 U
BROMOCHLOROMETHANE	16 U	7 U	7 U	11 U	9 U
BROMODICHLOROMETHANE	16 U	7 U	7 U	11 U	9 U
BROMOFORM	16 U	7 U	7 U	11 U	9 U
BROMOMETHANE	31 U	14 U	14 U	22 U	17 U
CARBON DISULFIDE	11 J	7 U	7 U	11 U	9 U
CARBON TETRACHLORIDE	16 U	7 U	7 U	11 U	9 U
CHLOROBENZENE	16 U	7 U	7 J	11 U	9 U
CHLORODIBROMOMETHANE	16 U	7 U	7 U	11 U	9 U
CHLOROETHANE	31 U	14 U	14 U	22 U	17 U
CHLOROFORM	16 U	7 U	7 U	11 U	9 U
CHLOROMETHANE	31 U	14 U	14 U	22 U	17 U
CIS-1,2-DICHLOROETHENE	16 U	2 J	7 U	11 U	9 U
CIS-1,3-DICHLOROPROPENE	16 U	7 U	7 U	11 U	9 U
DIBROMOMETHANE	16 U	7 U	7 U	11 U	9 U
DICHLORODIFLUOROMETHANE	31 U	14 U	14 U	22 U	17 U
DIISOPROPYL ETHER	16 U	7 U	7 U	11 U	9 U
ETHYL TERT-BUTYL ETHER	16 U	7 U	7 U	11 U	9 U
ETHYLBENZENE	16 U	7 U	7 U	11 U	9 U
HEXACHLOROBUTADIENE	16 U	7 U	7 U	11 U	9 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-16	SD-19	SD-27	SD-28	SD-29
SAMPLE ID	SD-16-02	SD-19-02	SD-27-02	SD-28-02	SD-29-02
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	16 U	3 J	7 U	11 U	9 U
M+P-XYLENES	31 U	14 U	14 U	22 U	17 U
METHYL TERT-BUTYL ETHER	2 J	14 U	14 U	22 U	17 U
METHYLENE CHLORIDE	16 B	9 B	6 B	6 B	5 B
NAPHTHALENE	16 U	7 U	7 U	11 U	9 U
N-BUTYLBENZENE	16 U	7 U	7 U	11 U	9 U
N-PROPYLBENZENE	16 U	7 U	7 U	11 U	9 U
O-XYLENE	16 U	7 U	7 U	11 U	9 U
SEC-BUTYLBENZENE	16 U	7 J	7 U	11 U	9 U
STYRENE	16 B	7 U	7 U	11 U	9 U
TERT-AMYL METHYL ETHER	16 U	7 U	7 U	11 U	9 U
TERT-BUTYLBENZENE	16 U	7 U	7 U	11 U	9 U
TERTIARY-BUTYL ALCOHOL	31 UR	14 UR	14 UR	22 UR	17 UR
TETRACHLOROETHENE	16 U	7 U	7 U	11 U	9 U
TOLUENE	16 U	10	1 J	3 J	9
TOTAL 1,2-DICHLOROETHENE	31 U	14 U	14 U	22 U	17 U
TOTAL XYLENES	47 U	22 U	21 U	34 U	26 U
TRANS-1,2-DICHLOROETHENE	16 U	7 U	7 U	11 U	9 U
TRANS-1,3-DICHLOROPROPENE	16 U	7 U	7 U	11 U	9 U
TRICHLOROETHENE	16 U	7 U	7 U	11 U	9 U
TRICHLOROFLUOROMETHANE	31 U	14 U	14 U	22 U	17 U
VINYL ACETATE	16 U	7 U	7 U	11 U	9 U
VINYL CHLORIDE	31 U	14 U	14 U	22 U	17 U
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1000 U	490 U	460 U	740 U	570 U
1,2-DICHLOROBENZENE	1000 U	490 U	460 U	740 U	570 U
1,3-DICHLOROBENZENE	1000 U	490 U	460 U	740 U	570 U
1,4-DICHLOROBENZENE	1000 U	490 U	460 U	740 U	570 U
1,4-DIOXANE	1000 U	490 U	460 U	740 U	570 U
1-METHYLNAPHTHALENE	1000 U	490 U	460 U	740 U	570 U
2,2'-OXYBIS(1-CHLOROPROPANE)	1000 U	490 U	460 U	740 U	570 U
2,4,5-TRICHLOROPHENOL	2600 U	1200 U	1100 U	1800 U	1400 U
2,4,6-TRICHLOROPHENOL	1000 U	490 U	460 U	740 U	570 U
2,4-DICHLOROPHENOL	1000 U	490 U	460 U	740 U	570 U
2,4-DIMETHYLPHENOL	1000 U	490 U	460 U	740 U	570 U
2,4-DINITROPHENOL	2600 U	1200 U	1100 U	1800 U	1400 U
2,4-DINITROTOLUENE	1000 U	490 U	460 U	740 U	570 U
2,6-DINITROTOLUENE	1000 U	490 U	460 U	740 U	570 U
2-CHLORONAPHTHALENE	1000 U	490 U	460 U	740 U	570 U
2-CHLOROPHENOL	1000 U	490 U	460 U	740 U	570 U
2-METHYLNAPHTHALENE	340 J	490 U	460 U	740 U	570 U
2-METHYLPHENOL	1000 U	490 U	460 U	740 U	570 U
2-NITROANILINE	2600 U	1200 U	1100 U	1800 U	1400 U
2-NITROPHENOL	1000 U	490 U	460 U	740 U	570 U
3&4-METHYLPHENOL	1000 U	490 U	460 U	740 U	570 U
3,3'-DICHLOROBENZIDINE	1000 UJ	490 UJ	460 U	740 U	570 U
3-NITROANILINE	2600 U	1200 U	1100 U	1800 U	1400 U
4,6-DINITRO-2-METHYLPHENOL	2600 U	1200 U	1100 U	1800 U	1400 U
4-BROMOPHENYL PHENYL ETHER	1000 U	490 U	460 U	740 U	570 U
4-CHLORO-3-METHYLPHENOL	1000 U	490 U	460 U	740 U	570 U
4-CHLOROANILINE	1000 U	490 U	460 U	740 U	570 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-16	SD-19	SD-27	SD-28	SD-29
SAMPLE ID	SD-16-02	SD-19-02	SD-27-02	SD-28-02	SD-29-02
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	1000 U	490 U	460 U	740 U	570 U
4-NITROANILINE	2600 U	1200 U	1100 U	1800 U	1400 U
4-NITROPHENOL	2600 U	1200 U	1100 U	1800 U	1400 U
ACENAPHTHENE	530 J	490 U	460 U	740 U	570 U
ACENAPHTHYLENE	1000 U	490 U	460 U	740 U	570 U
ANILINE	1000 U	490 U	460 U	740 U	570 U
ANTHRACENE	1100	490 U	460 U	740 U	570 U
BAP EQUIVALENT	5716	194	460 U	740 U	570 U
BAP EQUIVALENT-1/2 NON-DETECTS	5716	466	460 U	740 U	570 U
BAP EQUIVALENT-POSITIVE RESULTS	5716	194	460 U	740 U	570 U
BENZIDINE	2600 UJ	1200 UJ	1100 U	1800 U	1400 U
BENZO(A)ANTHRACENE	3600 J	150 J	460 U	740 U	570 U
BENZO(A)PYRENE	3900 J	160 J	460 U	740 U	570 U
BENZO(B)FLUORANTHENE	5200 J	190 J	460 U	740 U	570 U
BENZO(G,H,I)PERYLENE	2300 J	490 UJ	460 U	740 U	570 U
BENZO(K)FLUORANTHENE	2100 J	490 UJ	460 U	740 U	570 U
BENZOIC ACID	2600 U	1200 U	1100 U	1800 U	1400 U
BENZYL ALCOHOL	1000 U	490 U	460 U	740 U	570 U
BIS(2-CHLOROETHOXY)METHANE	1000 U	490 U	460 U	740 U	570 U
BIS(2-CHLOROETHYL)ETHER	1000 U	490 U	460 U	740 U	570 U
BIS(2-ETHYLHEXYL)PHTHALATE	350 J	140 J	460 U	740 U	570 U
BUTYL BENZYL PHTHALATE	1000 UJ	490 UJ	460 U	740 U	570 U
CARBAZOLE	410 J	490 U	460 U	740 U	570 U
CHRYSENE	5000 J	200 J	460 U	740 U	570 U
DIBENZO(A,H)ANTHRACENE	640 J	490 UJ	460 U	740 U	570 U
DIBENZOFURAN	240 J	490 U	460 U	740 U	570 U
DIETHYL PHTHALATE	1000 U	490 U	460 U	740 U	570 U
DIMETHYL PHTHALATE	1000 U	490 U	460 U	740 U	570 U
DI-N-BUTYL PHTHALATE	1000 U	490 U	460 U	740 U	570 U
DI-N-OCTYL PHTHALATE	1000 UJ	490 UJ	460 U	740 U	570 U
FLUORANTHENE	7700	340 J	460 U	740 U	140 J
FLUORENE	490 J	490 U	460 U	740 U	570 U
HEXACHLOROBENZENE	1000 U	490 U	460 U	740 U	570 U
HEXACHLOROBUTADIENE	1000 U	490 U	460 U	740 U	570 U
HEXACHLOROCYCLOPENTADIENE	1000 U	490 U	460 U	740 U	570 U
HEXACHLOROETHANE	1000 U	490 U	460 U	740 U	570 U
INDENO(1,2,3-CD)PYRENE	2700 J	490 UJ	460 U	740 U	570 U
ISOPHORONE	1000 U	490 U	460 U	740 U	570 U
NAPHTHALENE	540 J	490 U	460 U	740 U	570 U
NITROBENZENE	1000 U	490 U	460 U	740 U	570 U
N-NITROSODIMETHYLAMINE	1000 U	490 U	460 U	740 U	570 U
N-NITROSO-DI-N-PROPYLAMINE	1000 U	490 U	460 U	740 U	570 U
N-NITROSODIPHENYLAMINE	1000 U	490 U	460 U	740 U	570 U
PENTACHLOROPHENOL	2600 U	1200 U	1100 U	1800 U	1400 U
PHENANTHRENE	3700	170 J	460 U	740 U	570 U
PHENOL	1000 U	490 U	460 U	740 U	570 U
PYRENE	10000 J	370 J	460 U	740 U	570 U
PYRIDINE	1000 U	490 U	460 U	740 U	570 U
TOTAL PAHS	49840	1580	0 U	0 U	140

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-16	SD-19	SD-27	SD-28	SD-29
SAMPLE ID	SD-16-02	SD-19-02	SD-27-02	SD-28-02	SD-29-02
SAMPLE DATE	20051020	20051021	20051021	20051021	20051021
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	53 U	25 U	24 U	38 U	29 U
AROCLOR-1221	53 U	25 U	24 U	38 U	29 U
AROCLOR-1232	53 U	25 U	24 U	38 U	29 U
AROCLOR-1242	53 U	25 U	24 U	38 U	29 U
AROCLOR-1248	53 U	25 U	24 U	38 U	29 U
AROCLOR-1254	53 U	25 U	24 U	38 U	29 U
AROCLOR-1260	53 U	49 J	67 J	38 U	29 U
TOTAL AROCLOR	0 U	49	67	0 U	0 U
METALS (MG/KG)					
ANTIMONY	2.2	0.46 U	0.38 UL	0.54 UL	0.85 L
ARSENIC	2.8	3	2.1	5.4	5.9
BARIUM	104	28.2	8	32.7	26.8
BERYLLIUM	2.6	1.1	1.1	1.9	2
CADMIUM	56.4	2.7	0.64	1.1	0.57
CHROMIUM	1080	79	24.2 K	56.2 K	47.9 K
COBALT	18.2	6.4	3.9	14	9.8
COPPER	95.2	15.2	7.4 J	19.8 J	21.5 J
HEXAVALENT CHROMIUM	1.6 UL	0.75 UL	0.68 UL	1.1 UL	0.87 UL
LEAD	219	37	23.8	25.6	18.3
MERCURY	6.1 L	0.17 L	0.05 B	2.4 K	0.25 K
MOLYBDENUM	1.9	0.79	0.4	1.2	0.84
NICKEL	52.6	14.6	8.4	23.6	24.2
SELENIUM	1.04 UL	0.4 UL	0.33 U	0.47 U	0.83 U
SILVER	24.7	3.5	0.19 L	0.21 L	0.17 L
THALLIUM	1.78 U	0.86	0.57 U	0.8 U	0.71 U
VANADIUM	78.3	24.2	15.8	35.9	43.5
ZINC	612	76	32.4	91.9	62.1
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	2.8 U	NA
MONOBUTYLTIN	NA	NA	NA	3.7 U	NA
TETRABUTYLTIN	NA	NA	NA	3.7 U	NA
TRIBUTYLTIN	NA	NA	NA	3.3 U	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	32	67	72	44	58
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	6800	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-31	SD-40	SD-42	SD-43	SD-44
SAMPLE ID	SD-31-02	SD-40-02	SD-42-02	SD-43-02	SD-44-02
SAMPLE DATE	20051021	20051021	20051021	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	22	22
BOTTOM DEPTH	24	24	24	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	15 U	13 U	12 UJ	NA	NA
1,1,1-TRICHLOROETHANE	15 U	13 U	12 UJ	NA	NA
1,1,2,2-TETRACHLOROETHANE	15 U	13 UJ	12 UJ	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	15 U	13 U	12 UJ	NA	NA
1,1-DICHLOROETHANE	15 U	13 U	12 UJ	NA	NA
1,1-DICHLOROETHENE	15 U	13 U	12 UJ	NA	NA
1,1-DICHLOROPROPENE	15 U	13 U	12 UJ	NA	NA
1,2,3-TRICHLOROBENZENE	15 U	13 UJ	12 UJ	NA	NA
1,2,3-TRICHLOROPROPANE	15 U	13 UJ	12 UJ	NA	NA
1,2,3-TRIMETHYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
1,2,4-TRICHLOROBENZENE	15 U	13 UJ	12 UJ	NA	NA
1,2,4-TRIMETHYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	15 U	13 UJ	12 UJ	NA	NA
1,2-DIBROMOETHANE	15 U	13 U	12 UJ	NA	NA
1,2-DICHLOROBENZENE	15 U	13 UJ	12 UJ	NA	NA
1,2-DICHLOROETHANE	15 U	13 U	12 UJ	NA	NA
1,2-DICHLOROPROPANE	15 U	13 U	12 UJ	NA	NA
1,3-DICHLOROBENZENE	1 B	13 UJ	12 UJ	NA	NA
1,3-DICHLOROPROPANE	15 U	13 U	12 UJ	NA	NA
1,4-DICHLOROBENZENE	15 U	13 UJ	12 UJ	NA	NA
2,2-DICHLOROPROPANE	15 U	13 U	12 UJ	NA	NA
2-BUTANONE	74 U	66 UR	62 UR	NA	NA
2-CHLOROETHYL VINYL ETHER	15 U	13 U	12 UJ	NA	NA
2-CHLOROTOLUENE	15 U	13 UJ	12 UJ	NA	NA
2-HEXANONE	74 U	66 U	62 UJ	NA	NA
4-CHLOROTOLUENE	15 U	13 UJ	12 UJ	NA	NA
4-ISOPROPYLTOLUENE	15 U	13 UJ	12 UJ	NA	NA
4-METHYL-2-PENTANONE	74 U	66 U	62 UJ	NA	NA
ACETONE	140 B	240 J	120 J	NA	NA
BENZENE	15 U	13 U	12 UJ	NA	NA
BROMOBENZENE	15 U	13 UJ	12 UJ	NA	NA
BROMOCHLOROMETHANE	15 U	13 U	12 UJ	NA	NA
BROMODICHLOROMETHANE	15 U	13 U	12 UJ	NA	NA
BROMOFORM	15 U	13 U	12 UJ	NA	NA
BROMOMETHANE	30 U	27 U	25 UJ	NA	NA
CARBON DISULFIDE	7 J	5 J	8 J	NA	NA
CARBON TETRACHLORIDE	15 U	13 U	12 UJ	NA	NA
CHLOROBENZENE	15 U	13 U	12 UJ	NA	NA
CHLORODIBROMOMETHANE	15 U	13 U	12 UJ	NA	NA
CHLOROETHANE	30 U	27 U	25 UJ	NA	NA
CHLOROFORM	15 U	13 U	12 UJ	NA	NA
CHLOROMETHANE	30 U	27 U	25 UJ	NA	NA
CIS-1,2-DICHLOROETHENE	15 U	13 U	12 UJ	NA	NA
CIS-1,3-DICHLOROPROPENE	15 U	13 U	12 UJ	NA	NA
DIBROMOMETHANE	15 U	13 U	12 UJ	NA	NA
DICHLORODIFLUOROMETHANE	30 U	27 U	25 UJ	NA	NA
DIISOPROPYL ETHER	15 U	13 U	12 UJ	NA	NA
ETHYL TERT-BUTYL ETHER	15 U	13 U	12 UJ	NA	NA
ETHYLBENZENE	15 U	13 U	12 UJ	NA	NA
HEXACHLOROBUTADIENE	15 U	13 UJ	12 UJ	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-31	SD-40	SD-42	SD-43	SD-44
SAMPLE ID	SD-31-02	SD-40-02	SD-42-02	SD-43-02	SD-44-02
SAMPLE DATE	20051021	20051021	20051021	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	22	22
BOTTOM DEPTH	24	24	24	26	26
ISOPROPYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
M+P-XYLENES	30 U	27 U	25 UJ	NA	NA
METHYL TERT-BUTYL ETHER	3 J	27 U	25 UJ	NA	NA
METHYLENE CHLORIDE	15 U	13 U	12 UJ	NA	NA
NAPHTHALENE	15 U	13 UJ	12 UJ	NA	NA
N-BUTYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
N-PROPYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
O-XYLENE	15 U	13 U	12 UJ	NA	NA
SEC-BUTYLBENZENE	15 U	13 UJ	12 UJ	NA	NA
STYRENE	15 U	13 U	12 UJ	NA	NA
TERT-AMYL METHYL ETHER	15 U	13 U	12 UJ	NA	NA
TERT-BUTYLBENZENE	15 U	13 U	12 UJ	NA	NA
TERTIARY-BUTYL ALCOHOL	30 UR	27 UR	25 UR	NA	NA
TETRACHLOROETHENE	15 U	13 U	12 UJ	NA	NA
TOLUENE	15 U	13 U	12 UJ	NA	NA
TOTAL 1,2-DICHLOROETHENE	30 U	27 U	25 UJ	NA	NA
TOTAL XYLENES	44 U	40 U	37 UJ	NA	NA
TRANS-1,2-DICHLOROETHENE	15 U	13 U	12 UJ	NA	NA
TRANS-1,3-DICHLOROPROPENE	15 U	13 U	12 UJ	NA	NA
TRICHLOROETHENE	15 U	13 U	12 UJ	NA	NA
TRICHLOROFLUOROMETHANE	30 U	27 U	25 UJ	NA	NA
VINYL ACETATE	15 U	13 U	12 UJ	NA	NA
VINYL CHLORIDE	30 U	27 U	25 UJ	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	1000 UJ	880 U	NA	NA	NA
1,2-DICHLOROBENZENE	1000 UJ	880 U	NA	NA	NA
1,3-DICHLOROBENZENE	1000 UJ	880 U	NA	NA	NA
1,4-DICHLOROBENZENE	1000 UJ	74 B	NA	NA	NA
1,4-DIOXANE	1000 UJ	880 U	NA	NA	NA
1-METHYLNAPHTHALENE	1000 UJ	880 U	NA	440 U	630 U
2,2'-OXYBIS(1-CHLOROPROPANE)	1000 UJ	880 U	NA	NA	NA
2,4,5-TRICHLOROPHENOL	2500 UJ	2200 U	NA	NA	NA
2,4,6-TRICHLOROPHENOL	1000 UJ	880 U	NA	NA	NA
2,4-DICHLOROPHENOL	1000 UJ	880 U	NA	NA	NA
2,4-DIMETHYLPHENOL	1000 UJ	880 U	NA	NA	NA
2,4-DINITROPHENOL	2500 UJ	2200 U	NA	NA	NA
2,4-DINITROTOLUENE	1000 UJ	880 U	NA	NA	NA
2,6-DINITROTOLUENE	1000 UJ	880 U	NA	NA	NA
2-CHLORONAPHTHALENE	1000 UJ	880 U	NA	NA	NA
2-CHLOROPHENOL	1000 UJ	880 U	NA	NA	NA
2-METHYLNAPHTHALENE	1000 UJ	880 U	NA	440 U	630 U
2-METHYLPHENOL	1000 UJ	880 U	NA	NA	NA
2-NITROANILINE	2500 UJ	2200 U	NA	NA	NA
2-NITROPHENOL	1000 UJ	880 U	NA	NA	NA
3&4-METHYLPHENOL	1000 UJ	880 U	NA	NA	NA
3,3'-DICHLOROBENZIDINE	1000 UJ	880 U	NA	NA	NA
3-NITROANILINE	2500 UJ	2200 U	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	2500 UJ	2200 U	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	1000 UJ	880 U	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	1000 UJ	880 U	NA	NA	NA
4-CHLOROANILINE	1000 UJ	880 U	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-31	SD-40	SD-42	SD-43	SD-44
SAMPLE ID	SD-31-02	SD-40-02	SD-42-02	SD-43-02	SD-44-02
SAMPLE DATE	20051021	20051021	20051021	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	22	22
BOTTOM DEPTH	24	24	24	26	26
4-CHLOROPHENYL PHENYL ETHER	1000 UJ	880 U	NA	NA	NA
4-NITROANILINE	2500 UJ	2200 U	NA	NA	NA
4-NITROPHENOL	2500 UJ	2200 U	NA	NA	NA
ACENAPHTHENE	1000 UJ	190 B	NA	440 U	630 U
ACENAPHTHYLENE	1000 UJ	880 U	NA	440 U	630 U
ANILINE	1000 UJ	880 U	NA	NA	NA
ANTHRACENE	1000 UJ	190 J	NA	440 U	630 U
BAP EQUIVALENT	1000 U	964	NA	440 U	630 U
BAP EQUIVALENT-1/2 NON-DETECTS	1000 U	1408	NA	440 U	630 U
BAP EQUIVALENT-POSITIVE RESULTS	1000 U	964	NA	440 U	630 U
BENZIDINE	2500 UJ	2200 U	NA	NA	NA
BENZO(A)ANTHRACENE	1000 UJ	660 J	NA	440 U	630 U
BENZO(A)PYRENE	1000 UJ	740 J	NA	440 U	630 U
BENZO(B)FLUORANTHENE	1000 UJ	1000	NA	440 U	630 U
BENZO(G,H,I)PERYLENE	1000 UJ	690 J	NA	440 U	630 U
BENZO(K)FLUORANTHENE	1000 UJ	880 U	NA	440 U	630 U
BENZOIC ACID	2500 UJ	2200 U	NA	NA	NA
BENZYL ALCOHOL	1000 UJ	880 UJ	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	1000 UJ	880 U	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	1000 UJ	880 U	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	980 J	1700	NA	NA	NA
BUTYL BENZYL PHTHALATE	1000 UJ	880 U	NA	NA	NA
CARBAZOLE	1000 UJ	880 U	NA	NA	NA
CHRYSENE	1000 UJ	1000	NA	440 U	630 U
DIBENZO(A,H)ANTHRACENE	1000 UJ	880 U	NA	440 U	630 U
DIBENZOFURAN	1000 UJ	880 U	NA	NA	NA
DIETHYL PHTHALATE	1000 UJ	880 U	NA	NA	NA
DIMETHYL PHTHALATE	1000 UJ	880 U	NA	NA	NA
DI-N-BUTYL PHTHALATE	1000 UJ	880 U	NA	NA	NA
DI-N-OCTYL PHTHALATE	1000 UJ	880 U	NA	NA	NA
FLUORANTHENE	1000 UJ	890	NA	440 U	630 U
FLUORENE	1000 UJ	880 U	NA	440 U	630 U
HEXACHLOROBENZENE	1000 UJ	880 U	NA	NA	NA
HEXACHLOROBUTADIENE	1000 UJ	880 U	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	1000 UR	880 U	NA	NA	NA
HEXACHLOROETHANE	1000 UR	880 U	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	1000 UJ	570 J	NA	440 U	630 U
ISOPHORONE	1000 UJ	880 U	NA	NA	NA
NAPHTHALENE	1000 UJ	880 U	NA	440 U	630 U
NITROBENZENE	1000 UJ	880 U	NA	NA	NA
N-NITROSODIMETHYLAMINE	1000 UJ	880 U	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	1000 UJ	880 U	NA	NA	NA
N-NITROSODIPHENYLAMINE	1000 UJ	880 U	NA	NA	NA
PENTACHLOROPHENOL	2500 UJ	2200 U	NA	NA	NA
PHENANTHRENE	1000 UJ	400 J	NA	440 U	630 U
PHENOL	1000 UJ	880 U	NA	NA	NA
PYRENE	1000 UJ	2100	NA	440 U	630 U
PYRIDINE	1000 UJ	880 U	NA	NA	NA
TOTAL PAHS	0 U	8240	NA	0 U	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-31	SD-40	SD-42	SD-43	SD-44
SAMPLE ID	SD-31-02	SD-40-02	SD-42-02	SD-43-02	SD-44-02
SAMPLE DATE	20051021	20051021	20051021	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	22	22
BOTTOM DEPTH	24	24	24	26	26
PCBS (UG/KG)					
AROCLOR-1016	52 U	45 U	NA	28 U	31 U
AROCLOR-1221	52 U	45 U	NA	28 U	31 U
AROCLOR-1232	52 U	45 U	NA	28 U	31 U
AROCLOR-1242	52 U	45 U	NA	28 U	31 U
AROCLOR-1248	52 U	45 U	NA	28 U	31 U
AROCLOR-1254	52 U	45 U	NA	28 U	31 U
AROCLOR-1260	75	960	NA	28 U	31 U
TOTAL AROCLOR	75	960	NA	0 U	0 U
METALS (MG/KG)					
ANTIMONY	1 L	0.94 U	0.7 U	0.17 U	0.18 U
ARSENIC	8.1	4	5.6	3.3	2.3
BARIUM	45.7	73.5	37.3	84.8 J	28.4
BERYLLIUM	1.9	2.2	2.4	1.6 J	1.9
CADMIUM	2.9	56.6	1.6	0.77	0.11
CHROMIUM	102 K	945	46.8	25 J	19.2
COBALT	17.7	20	22.3	17.6	14.2
COPPER	46 J	113	34.5	19.9 J	12.5
HEXAVALENT CHROMIUM	1.5 UL	1.3 U	1.2 U	NA	NA
LEAD	58.5	316	68	17 J	7.3
MERCURY	0.4 K	0.61	0.21	0.054 B	0.037
MOLYBDENUM	0.54	1.9	1.7	0.5	1.2
NICKEL	31	51.2	31.5	21.5	16
SELENIUM	0.76 U	0.82 U	0.61 U	0.96	0.79
SILVER	0.85 L	3.4	0.46 B	0.1 U	0.11 U
THALLIUM	1.31 U	1.41 U	1.05 U	0.29 U	0.31 U
VANADIUM	40.4	66.3	34.9	36.5 J	30.1
ZINC	186	559	136	56	41.4
METALS (UG/KG)					
DIBUTYLTIN	5.5	8.5	NA	NA	NA
MONOBUTYLTIN	5.5 U	4.1 UR	NA	NA	NA
TETRABUTYLTIN	5.5 U	4.1 U	NA	NA	NA
TRIBUTYLTIN	4.8 U	3.7 U	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	32	38	40	60	53
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	54000 K	50000	NA	16000	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-48	SD-49
SAMPLE ID	SD-45-02	SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-48	SD-49
SAMPLE ID	SD-45-02	SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	600 U	780 U	570 U	410 U	530 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	600 U	780 U	570 U	410 U	530 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-48	SD-49
SAMPLE ID	SD-45-02	SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	600 U	780 U	570 U	410 U	530 U
ACENAPHTHYLENE	600 U	780 U	570 U	410 U	530 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	600 U	780 U	570 U	410 U	530 U
BAP EQUIVALENT	600 U	780 U	570 U	410 U	530 U
BAP EQUIVALENT-1/2 NON-DETECTS	600 U	780 U	570 U	410 U	530 U
BAP EQUIVALENT-POSITIVE RESULTS	600 U	780 U	570 U	410 U	530 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	600 U	780 U	570 U	410 U	530 U
BENZO(A)PYRENE	600 U	780 U	570 U	410 U	530 U
BENZO(B)FLUORANTHENE	600 U	780 U	570 U	410 U	530 U
BENZO(G,H,I)PERYLENE	600 U	780 U	570 U	410 U	530 U
BENZO(K)FLUORANTHENE	600 U	780 U	570 U	410 U	530 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	600 U	780 U	570 U	410 U	530 U
DIBENZO(A,H)ANTHRACENE	600 U	780 U	570 U	410 U	530 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	600 U	780 U	570 U	410 U	530 U
FLUORENE	600 U	780 U	570 U	410 U	530 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	600 U	780 U	570 U	410 U	530 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	600 U	780 U	570 U	410 U	530 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	600 U	780 U	570 U	410 U	530 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	600 U	780 U	570 U	410 U	530 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-48	SD-49
SAMPLE ID	SD-45-02	SD-46-02	SD-47-02	SD-48-02	SD-49-02
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
PCBS (UG/KG)					
AROCLOR-1016	30 U	39 U	28 U	20 U	33 U
AROCLOR-1221	30 U	39 U	28 U	20 U	33 U
AROCLOR-1232	30 U	39 U	28 U	20 U	33 U
AROCLOR-1242	30 U	39 U	28 U	20 U	33 U
AROCLOR-1248	30 U	39 U	28 U	20 U	33 U
AROCLOR-1254	30 U	39 U	28 U	20 U	33 U
AROCLOR-1260	30 U	39 U	28 U	20 U	33 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.18 U	0.25 L	0.17 UL	0.12 UL	0.19 U
ARSENIC	3.2	7	4.5	0.77 B	7
BARIUM	34.3	41.9	16.5	10.7	22.6 J
BERYLLIUM	1.3	2.6	2	0.69	1.3 J
CADMIUM	0.2	17.5	0.1	0.016	0.011 U
CHROMIUM	20.1	336	16.3	11.8	20.6 J
COBALT	10.5	21.7	12.6	1.1	13.8
COPPER	13.5	42.4	9.5	7.8	12.1 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	8.5	85.2	5.1	4.1	7.3 J
MERCURY	0.016	0.19	0.023 B	0.0095 B	0.034 B
MOLYBDENUM	1.1	1.4	1.6	0.2 B	1.4
NICKEL	14.3	30.8	50.5	4.1	15.7
SELENIUM	0.58 U	1.9	0.86	0.39 U	1.8
SILVER	0.15	1.1	0.11 U	0.075 U	0.14 B
THALLIUM	0.3 U	0.39 U	0.3 U	0.21 U	0.32 U
VANADIUM	34.2	42.6	22.2	20.4	26.8 J
ZINC	46.6	232	37	7.6	51.9
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	56	43	59	82	50
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	9600	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-51	SD-51	SD-53
SAMPLE ID	SD-50-02	SD-51-02	SD-51-02-AVG	SD-51-02-D	SD-53-02
SAMPLE DATE	20081114	20081115	20081115	20081115	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	20	20	20	22
BOTTOM DEPTH	26	28	28	28	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-51	SD-51	SD-53
SAMPLE ID	SD-50-02	SD-51-02	SD-51-02-AVG	SD-51-02-D	SD-53-02
SAMPLE DATE	20081114	20081115	20081115	20081115	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	20	20	20	22
BOTTOM DEPTH	26	28	28	28	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1100 U	1100 U	1100 U	1100 U	770 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1100 U	1100 U	1100 U	1100 U	770 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-51	SD-51	SD-53
SAMPLE ID	SD-50-02	SD-51-02	SD-51-02-AVG	SD-51-02-D	SD-53-02
SAMPLE DATE	20081114	20081115	20081115	20081115	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	20	20	20	22
BOTTOM DEPTH	26	28	28	28	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1100 U	1100 U	1100 U	1100 U	770 U
ACENAPHTHYLENE	1100 U	1100 U	1100 U	1100 U	770 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	1100 U	1100 U	1100 U	1100 U	770 U
BAP EQUIVALENT	69.5	40.5	40.5	1100 U	770 U
BAP EQUIVALENT-1/2 NON-DETECTS	1225	1196	1196	1100 U	770 U
BAP EQUIVALENT-POSITIVE RESULTS	69.5	40.5	40.5	1100 U	770 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1100 U	1100 U	1100 U	1100 U	770 U
BENZO(A)PYRENE	1100 U	1100 U	1100 U	1100 U	770 U
BENZO(B)FLUORANTHENE	460 J	270 J	270 J	1100 U	770 U
BENZO(G,H,I)PERYLENE	1100 U	1100 U	1100 U	1100 U	770 U
BENZO(K)FLUORANTHENE	500 J	220 J	220 J	1100 U	770 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	500 J	310 J	310 J	1100 U	770 U
DIBENZO(A,H)ANTHRACENE	1100 U	1100 U	1100 U	1100 U	770 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	690 J	420 J	420 J	1100 U	770 U
FLUORENE	1100 U	1100 U	1100 U	1100 U	770 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	180 J	110 J	110 J	1100 U	770 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1100 U	1100 U	1100 U	1100 U	770 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	330 J	1100 U	1100 U	1100 U	770 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	1000 J	590 J	590 J	1100 U	770 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	3660	1920	1920	0 U	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-50	SD-51	SD-51	SD-51	SD-53
SAMPLE ID	SD-50-02	SD-51-02	SD-51-02-AVG	SD-51-02-D	SD-53-02
SAMPLE DATE	20081114	20081115	20081115	20081115	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	20	20	20	22
BOTTOM DEPTH	26	28	28	28	26
PCBS (UG/KG)					
AROCLOR-1016	270 U	53 U	53 U	53 U	38 U
AROCLOR-1221	2700 UJ	53 U	53 U	53 U	38 U
AROCLOR-1232	2700 UJ	53 U	53 U	53 U	38 U
AROCLOR-1242	2700 UJ	53 U	53 U	53 U	38 U
AROCLOR-1248	2700 UJ	53 U	53 U	53 U	38 U
AROCLOR-1254	2700 UJ	53 U	53 U	53 U	38 U
AROCLOR-1260	610	270 J	148.25 J	53 UJ	38 U
TOTAL AROCLOR	610	270	148.25	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.34 UJ	1 L	0.5825 L	0.33 UL	0.23 UL
ARSENIC	12.3	11.5	11.4	11.3	8.1
BARIUM	69.4	61.7	62.15	62.6	28.8
BERYLLIUM	2.4	2.2	2.2	2.2	1.8
CADMIUM	38.3	28.6	30.7	32.8	0.1
CHROMIUM	527	515	527.5	540	31.5
COBALT	30.9	20.9	21.05	21.2	11.8
COPPER	115	116	115.5	115	18
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	196	214	216	218	11
MERCURY	1.1	0.94	0.92	0.9	0.048
MOLYBDENUM	1.5 J	1.7	1.85	2	1.9
NICKEL	66.2	48.1	48.4	48.7	19.9
SELENIUM	2.2	2.5	2.6	2.7	1
SILVER	18	6.1	6.95	7.8	0.14 U
THALLIUM	0.59 U	0.54 U	0.55 U	0.56 U	0.39 U
VANADIUM	96	76.9	78.85	80.8	45.1
ZINC	534	435	442.5	450	61.4
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	32	31.5	31	44
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-55	SD-56	SD-57	SD-58
SAMPLE ID	SD-54-02	SD-55-02	SD-56-02	SD-57-02	SD-58-02
SAMPLE DATE	20081114	20081113	20081113	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-55	SD-56	SD-57	SD-58
SAMPLE ID	SD-54-02	SD-55-02	SD-56-02	SD-57-02	SD-58-02
SAMPLE DATE	20081114	20081113	20081113	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	140 J	400 U	750 U	850 U	950
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	310 J	400 U	750 U	850 U	1100 J
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-55	SD-56	SD-57	SD-58
SAMPLE ID	SD-54-02	SD-55-02	SD-56-02	SD-57-02	SD-58-02
SAMPLE DATE	20081114	20081113	20081113	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1100 U	400 U	750 U	850 U	11000 J
ACENAPHTHYLENE	1100 U	400 U	750 U	850 U	610 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	290 J	400 U	89 J	850 U	19000
BAP EQUIVALENT	157	400 U	83.6	850 U	38387
BAP EQUIVALENT-1/2 NON-DETECTS	1312	400 U	871	850 U	38692
BAP EQUIVALENT-POSITIVE RESULTS	157	400 U	83.6	850 U	38387
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1100 U	400 U	750 U	850 U	38000
BENZO(A)PYRENE	1100 U	400 U	750 U	850 U	30000
BENZO(B)FLUORANTHENE	1000 J	400 U	540 J	850 U	31000
BENZO(G,H,I)PERYLENE	560 J	400 U	280 J	850 U	11000 J
BENZO(K)FLUORANTHENE	810 J	400 U	410 J	850 U	25000
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1000 J	400 U	480 J	850 U	37000
DIBENZO(A,H)ANTHRACENE	1100 U	400 U	750 U	850 U	610 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1700	400 U	750 J	850 U	78000
FLUORENE	180 J	400 U	750 U	850 U	10000 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	480 J	400 U	250 J	850 U	12000 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	320 J	400 U	750 U	850 U	2200 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1100 J	400 U	330 J	850 U	76000
PHENOL	NA	NA	NA	NA	NA
PYRENE	2600	400 U	990	850 U	76000
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	10350	0 U	4119	0 U	457300

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-55	SD-56	SD-57	SD-58
SAMPLE ID	SD-54-02	SD-55-02	SD-56-02	SD-57-02	SD-58-02
SAMPLE DATE	20081114	20081113	20081113	20081114	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
PCBS (UG/KG)					
AROCLOR-1016	55 U	20 U	38 U	42 U	610 U
AROCLOR-1221	55 U	20 U	38 U	42 U	6100 UJ
AROCLOR-1232	55 U	20 U	38 U	42 U	6100 UJ
AROCLOR-1242	55 U	20 U	38 U	42 U	6100 UJ
AROCLOR-1248	55 U	20 U	38 U	42 U	6100 UJ
AROCLOR-1254	55 U	20 U	38 U	42 U	6100 UJ
AROCLOR-1260	55 U	20 U	350	42 U	790
TOTAL AROCLOR	0 U	0 U	350	0 U	790
METALS (MG/KG)					
ANTIMONY	0.36 L	0.13 UL	0.48 L	0.25 UJ	132 L
ARSENIC	10.9	1.5	7.2	7	5.1
BARIUM	87.7	11.6	32.9	29	238
BERYLLIUM	2.4	1.9	1.5	2.1	1.1
CADMIUM	53.5	0.0074 U	19	0.015 U	16.9
CHROMIUM	1050	19.1	264	32.2	1090
COBALT	19.9	4.6	13.9	13.2	12.2
COPPER	89.9	9.3	66.6	17.3	63.2
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	162	5.6	108	10.8	299
MERCURY	1.5	0.0079	0.65	0.016	0.5
MOLYBDENUM	1.2	0.26	1.1	0.098 UL	0.07 UL
NICKEL	50.8	19.4	33.8	22.5	27.6
SELENIUM	2.8	0.49	1.5	0.81 U	0.98
SILVER	8.4	0.079 U	11.7	0.15 U	3.5
THALLIUM	0.59 U	0.22 U	0.38 U	0.42 U	2.3
VANADIUM	62.6	31	62.7	35.9	29.3
ZINC	543	20.4	267	64.7	2980
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	30	83	44	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-59	SD-59	SD-59	SD-60	SD-61
SAMPLE ID	SD-59-02	SD-59-02-AVG	SD-59-02-D	SD-60-02	SD-61-02
SAMPLE DATE	20081115	20081115	20081115	20081112	20081113
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	20	22	22
BOTTOM DEPTH	28	28	28	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-59	SD-59	SD-59	SD-60	SD-61
SAMPLE ID	SD-59-02	SD-59-02-AVG	SD-59-02-D	SD-60-02	SD-61-02
SAMPLE DATE	20081115	20081115	20081115	20081112	20081113
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	20	22	22
BOTTOM DEPTH	28	28	28	26	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	600 U	600 U	600 U	520 U	88 J
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	600 U	600 U	600 U	520 U	940 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-59	SD-59	SD-59	SD-60	SD-61
SAMPLE ID	SD-59-02	SD-59-02-AVG	SD-59-02-D	SD-60-02	SD-61-02
SAMPLE DATE	20081115	20081115	20081115	20081112	20081113
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	20	22	22
BOTTOM DEPTH	28	28	28	26	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	600 U	600 U	600 U	520 U	410 J
ACENAPHTHYLENE	600 U	600 U	600 U	520 U	940 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	64 J	64 J	600 U	75 J	350 J
BAP EQUIVALENT	29.5	24.9	20.3	24.8	2600
BAP EQUIVALENT-1/2 NON-DETECTS	689	685	680	571	2600
BAP EQUIVALENT-POSITIVE RESULTS	29.5	24.9	20.3	24.8	2600
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	600 U	600 U	600 U	520 U	1600
BENZO(A)PYRENE	600 U	600 U	600 U	520 U	1700
BENZO(B)FLUORANTHENE	260 J	225 J	190 J	160 J	1700
BENZO(G,H,I)PERYLENE	600 U	600 U	600 U	520 U	1200
BENZO(K)FLUORANTHENE	310 J	210 J	110 J	160 J	1800
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	350 J	265 J	180 J	200 J	1800
DIBENZO(A,H)ANTHRACENE	600 U	600 U	600 U	520 U	440 J
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	450 J	345 J	240 J	340 J	2900
FLUORENE	600 U	600 U	600 U	520 U	180 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	600 U	600 U	600 U	70 J	1100
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	600 U	600 U	600 U	520 U	200 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	260 J	195 J	130 J	350 J	1300
PHENOL	NA	NA	NA	NA	NA
PYRENE	710 J	545 J	380 J	540 J	4100
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	2404	1849	1230	1895	20780

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-59	SD-59	SD-59	SD-60	SD-61
SAMPLE ID	SD-59-02	SD-59-02-AVG	SD-59-02-D	SD-60-02	SD-61-02
SAMPLE DATE	20081115	20081115	20081115	20081112	20081113
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	20	22	22
BOTTOM DEPTH	28	28	28	26	26
PCBS (UG/KG)					
AROCLOR-1016	37 U	37 U	37 U	32 U	47 U
AROCLOR-1221	37 U	37 U	37 U	32 U	47 U
AROCLOR-1232	37 U	37 U	37 U	32 U	47 U
AROCLOR-1242	37 U	37 U	37 U	32 U	47 U
AROCLOR-1248	37 U	37 U	37 U	32 U	47 U
AROCLOR-1254	37 U	37 U	37 U	32 U	47 U
AROCLOR-1260	37 U	37 U	37 U	32 U	71
TOTAL AROCLOR	0 U	0 U	0 U	0 U	71
METALS (MG/KG)					
ANTIMONY	0.22 U	0.215 U	0.21 U	2.7 J	0.93 L
ARSENIC	7	7.55	8.1	6.7	10.2
BARIUM	56.9 J	59.3 J	61.7 J	43 J	60.8
BERYLLIUM	1.7 J	1.85 J	2 J	1.5 J	2.2
CADMIUM	24.2	26.5	28.8	9.7	37.3
CHROMIUM	592 J	641 J	690 J	236 J	739
COBALT	12.7	13.45	14.2	9.7 J	18
COPPER	49.5 J	53.15 J	56.8 J	31.8 J	93.3
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	111 J	126 J	141 J	89.3	179
MERCURY	0.91	0.94	0.97	0.62	2.6
MOLYBDENUM	1.1	1.15	1.2	1.2	1.6
NICKEL	27.6	29.15	30.7	22 J	47.5
SELENIUM	1.7	1.8	1.9	1.2	2.3
SILVER	10.7	11.25	11.8	6.9	21.8
THALLIUM	0.37 U	0.37 U	0.37 U	0.33 U	0.48 U
VANADIUM	43.1 J	45.55 J	48 J	39.2 J	81.3
ZINC	447	476.5	506	197 J	488
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	45	44.5	44	51	35
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	17000	17000	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-62	SD-63	SD-64	SD-65	SD-66
SAMPLE ID	SD-62-02	SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE	20081112	20081112	20081112	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-62	SD-63	SD-64	SD-65	SD-66
SAMPLE ID	SD-62-02	SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE	20081112	20081112	20081112	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	650 U	470 U	730 U	780 UJ	900 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	650 U	470 U	730 U	780 UJ	900 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-62	SD-63	SD-64	SD-65	SD-66
SAMPLE ID	SD-62-02	SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE	20081112	20081112	20081112	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	650 U	470 U	730 U	780 UJ	900 UJ
ACENAPHTHYLENE	650 U	470 U	730 U	780 UJ	900 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	140 J	48 J	730 U	780 UJ	900 UJ
BAP EQUIVALENT	641	470 U	730 U	780 U	28.8
BAP EQUIVALENT-1/2 NON-DETECTS	998	470 U	730 U	780 U	1019
BAP EQUIVALENT-POSITIVE RESULTS	641	470 U	730 U	780 U	28.8
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	650 U	470 U	730 U	780 UJ	900 UJ
BENZO(A)PYRENE	550 J	470 U	730 U	780 UJ	900 UJ
BENZO(B)FLUORANTHENE	570 J	470 U	730 U	780 UJ	260 J
BENZO(G,H,I)PERYLENE	320 J	470 U	730 U	780 UJ	900 UJ
BENZO(K)FLUORANTHENE	520 J	470 U	730 U	780 UJ	240 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	680	470 U	730 U	780 UJ	370 J
DIBENZO(A,H)ANTHRACENE	650 U	470 U	730 U	780 UJ	900 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	990	59 J	730 U	780 UJ	490 J
FLUORENE	90 J	470 U	730 U	780 UJ	900 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	280 J	470 U	730 U	780 UJ	900 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	650 U	470 U	730 U	780 UJ	900 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	460 J	470 U	730 U	780 UJ	310 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	1700 J	120 J	730 U	780 UJ	890 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	6300	227	0 U	0 U	2560

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-62	SD-63	SD-64	SD-65	SD-66
SAMPLE ID	SD-62-02	SD-63-02	SD-64-02	SD-65-02	SD-66-02
SAMPLE DATE	20081112	20081112	20081112	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
PCBS (UG/KG)					
AROCLOR-1016	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1221	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1232	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1242	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1248	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1254	41 U	29 UJ	46 U	39 U	56 UJ
AROCLOR-1260	63 J	29 UJ	46 U	39 U	56 UJ
TOTAL AROCLOR	63	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	2.1 J	0.52 J	0.28 UL	0.24 UJ	3.4 J
ARSENIC	7.8	5.3	7.2	7	10.4 J
BARIUM	52.1 J	33.1 J	42.1 J	43.8	120 J
BERYLLIUM	2 J	1.3 J	2.2 J	2	1.8 J
CADMIUM	15.4 J	2.6 J	1.4 J	5.2	33.8 J
CHROMIUM	331 J	80.6 J	73.2 J	139	684 J
COBALT	13.8 J	8.1 J	16.3 J	14.4	13.6 J
COPPER	43.1 J	20.9 J	29.5 J	30.5 J	65.2 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	67.9 J	29.3 J	27.8 J	39.2	126 J
MERCURY	0.48	0.12	0.1	0.35	1.9 J
MOLYBDENUM	1.6 J	1.1 J	1.8 J	1.5	1.1 J
NICKEL	37.4 J	19 J	28.4 J	25.7 J	35 J
SELENIUM	2.1 J	0.78 J	1.8 J	1.1 J	2.2 J
SILVER	11.2 J	2.6 J	1.1 J	6.5	12.6 J
THALLIUM	0.4 U	0.3 U	0.47 U	0.4 U	0.6 UJ
VANADIUM	50.9 J	41 J	42.6 J	38.9	53.3 J
ZINC	245 J	78.1 J	108 J	138 J	502 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	41	57	36	NA	30
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	9200	21000 J
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-67	SD-68	SD-69	SD-70	SD-71
SAMPLE ID	SD-67-02	SD-68-02	SD-69-02	SD-70-02	SD-71-02
SAMPLE DATE	20081111	20081112	20081111	20081111	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-67	SD-68	SD-69	SD-70	SD-71
SAMPLE ID	SD-67-02	SD-68-02	SD-69-02	SD-70-02	SD-71-02
SAMPLE DATE	20081111	20081112	20081111	20081111	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-67	SD-68	SD-69	SD-70	SD-71
SAMPLE ID	SD-67-02	SD-68-02	SD-69-02	SD-70-02	SD-71-02
SAMPLE DATE	20081111	20081112	20081111	20081111	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
ACENAPHTHYLENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	150 J	660 U	410 U	650 UJ	740 UJ
BAP EQUIVALENT	1591	17.2	410 U	650 U	740 U
BAP EQUIVALENT-1/2 NON-DETECTS	2091	743	410 U	650 U	740 U
BAP EQUIVALENT-POSITIVE RESULTS	1591	17.2	410 U	650 U	740 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1100 J	660 U	410 U	650 UJ	740 UJ
BENZO(A)PYRENE	1200 J	660 U	410 U	650 UJ	740 UJ
BENZO(B)FLUORANTHENE	2000 J	160 J	410 U	650 UJ	740 UJ
BENZO(G,H,I)PERYLENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
BENZO(K)FLUORANTHENE	2500 J	100 J	410 U	650 UJ	740 UJ
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1300 J	190 J	410 U	650 UJ	740 UJ
DIBENZO(A,H)ANTHRACENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	1700 J	240 J	410 U	650 UJ	720 J
FLUORENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	550 J	660 U	410 U	650 UJ	740 UJ
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	1000 UJ	660 U	410 U	650 UJ	740 UJ
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	830 J	130 J	410 U	650 UJ	250 J
PHENOL	NA	NA	NA	NA	NA
PYRENE	2700 J	490 J	410 U	650 UJ	1300 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	14030	1310	0 U	0 U	2270

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-67	SD-68	SD-69	SD-70	SD-71
SAMPLE ID	SD-67-02	SD-68-02	SD-69-02	SD-70-02	SD-71-02
SAMPLE DATE	20081111	20081112	20081111	20081111	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	22	22
BOTTOM DEPTH	26	26	26	26	26
PCBS (UG/KG)					
AROCLOR-1016	52 U	41 U	21 U	32 U	37 U
AROCLOR-1221	52 U	41 U	21 U	32 U	37 U
AROCLOR-1232	52 U	41 U	21 U	32 U	37 U
AROCLOR-1242	52 U	41 U	21 U	32 U	37 U
AROCLOR-1248	52 U	41 U	21 U	32 U	37 U
AROCLOR-1254	52 U	41 U	21 U	32 U	37 U
AROCLOR-1260	230	41 U	21 U	32 U	28 J
TOTAL AROCLOR	230	0 U	0 U	0 U	28
METALS (MG/KG)					
ANTIMONY	0.97 B	5.4 J	0.12 UL	0.19 UJ	0.73 B
ARSENIC	10.5	8.7	6.5	5.3	8
BARIUM	85.4	112 J	24	20.6	99.1
BERYLLIUM	2.1	2 J	2.9	1.8	2
CADMIUM	36	23.9	0.02	2.1	9.7
CHROMIUM	714	497 J	15.4	70.2	235
COBALT	17.3	14 J	37.9	12.1	12.4
COPPER	94.8 J	55.9 J	15.1	23.3 J	37.4 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	208	104	17.2	21.7	59.9
MERCURY	4.7	1.1	0.015 B	0.055	0.44
MOLYBDENUM	1.9	2	0.059	1.3	2
NICKEL	54.4 J	34 J	45.2	20.1 J	25.7 J
SELENIUM	1.7 J	1.7	0.39 UL	0.91 J	1.1 J
SILVER	40.9	21	0.074 U	3	16.4
THALLIUM	0.55 U	0.42 U	0.2 U	0.32 U	0.36 U
VANADIUM	90.9	54.5 J	23.4 K	32.6	49.4
ZINC	490 J	390 J	90.2	80.9 J	216 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	41	80	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	13000	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-72	SD-73	SD-74	SD-75	SD-75
SAMPLE ID	SD-72-02	SD-73-02	SD-74-02	SD-75-02	SD-75-02-AVG
SAMPLE DATE	20081112	20081111	20081111	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	20	20
BOTTOM DEPTH	26	26	26	28	28
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-72	SD-73	SD-74	SD-75	SD-75
SAMPLE ID	SD-72-02	SD-73-02	SD-74-02	SD-75-02	SD-75-02-AVG
SAMPLE DATE	20081112	20081111	20081111	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	20	20
BOTTOM DEPTH	26	26	26	28	28
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	340 U	650 U	420 U	430 U	435 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	340 U	650 U	420 U	430 U	435 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-72	SD-73	SD-74	SD-75	SD-75
SAMPLE ID	SD-72-02	SD-73-02	SD-74-02	SD-75-02	SD-75-02-AVG
SAMPLE DATE	20081112	20081111	20081111	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	20	20
BOTTOM DEPTH	26	26	26	28	28
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	340 U	650 U	420 U	250 J	270 J
ACENAPHTHYLENE	340 U	650 U	420 U	430 U	435 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	340 U	650 U	420 U	650	640
BAP EQUIVALENT	340 U	650 U	420 U	2155	1633
BAP EQUIVALENT-1/2 NON-DETECTS	340 U	650 U	420 U	2370	1851
BAP EQUIVALENT-POSITIVE RESULTS	340 U	650 U	420 U	2155	1633
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	340 U	650 U	420 U	2000 J	1550 J
BENZO(A)PYRENE	340 U	650 U	420 U	1700 J	1290 J
BENZO(B)FLUORANTHENE	340 U	650 U	420 U	1600 J	1190 J
BENZO(G,H,I)PERYLENE	340 U	650 U	420 U	750	525 J
BENZO(K)FLUORANTHENE	340 U	650 U	420 U	1700 J	1290 J
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	340 U	650 U	420 U	2200 J	1700 J
DIBENZO(A,H)ANTHRACENE	340 U	650 U	420 U	430 U	435 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	340 U	650 U	420 U	3400	2750
FLUORENE	340 U	650 U	420 U	430 U	340 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	340 U	650 U	420 U	760	545 J
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	340 U	650 U	420 U	430 U	99 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	340 U	650 U	420 U	2800	2500
PHENOL	NA	NA	NA	NA	NA
PYRENE	340 UJ	650 U	420 U	4800 J	3750 J
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	0 U	22610	18439

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-72	SD-73	SD-74	SD-75	SD-75
SAMPLE ID	SD-72-02	SD-73-02	SD-74-02	SD-75-02	SD-75-02-AVG
SAMPLE DATE	20081112	20081111	20081111	20081112	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	22	22	20	20
BOTTOM DEPTH	26	26	26	28	28
PCBS (UG/KG)					
AROCLOR-1016	21 U	33 U	21 U	27 U	27 U
AROCLOR-1221	21 U	33 U	21 U	27 U	27 U
AROCLOR-1232	21 U	33 U	21 U	27 U	27 U
AROCLOR-1242	21 U	33 U	21 U	27 U	27 U
AROCLOR-1248	21 U	33 U	21 U	27 U	27 U
AROCLOR-1254	21 U	33 U	21 U	27 U	27 U
AROCLOR-1260	21 U	33 U	21 U	27 U	27 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.24 J	0.2 UL	0.13 UL	2.7 J	2.95 J
ARSENIC	6.2	4.5	4.6	5.2	5.95
BARIUM	26 J	17.2	22.4	87.2 J	94.6 J
BERYLLIUM	1.8 J	1.7	1.9	0.89 J	0.945 J
CADMIUM	0.0075 UL	0.03	0.65	11	11.45
CHROMIUM	28.5 J	22.3	33	277 J	329.5 J
COBALT	5.2 J	9.1	14.6	6.9 J	7.4 J
COPPER	31.7 J	14.4	25.8	36.2 J	35.6 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	8.6 J	6.6	27.9	75.5	88.25
MERCURY	0.022 B	0.022 B	0.23	1.4	1.35
MOLYBDENUM	0.81 J	1.1	1.2	4	4.35
NICKEL	17.7 J	15.7	23.4	17.4 J	18.75 J
SELENIUM	0.5 J	0.65 UL	0.43 UL	0.82	1.01
SILVER	0.079 UL	0.12 U	2.5	35.6	36.8
THALLIUM	0.22 U	0.34 U	0.22 U	0.27 U	0.275 U
VANADIUM	49.5 J	29.4 K	35.9 K	29.4 J	30.25 J
ZINC	26.1 J	40.7	67.6	267 J	364.5 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	79	51	79	63	62
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	35000	3100	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-75	SD-76	SD-77	SD-80	SD-81
SAMPLE ID	SD-75-02-D	SD-76-02	SD-77-02	SD-80-02	SD-81-02
SAMPLE DATE	20081112	20081111	20081110	20081114	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	22	22	22
BOTTOM DEPTH	28	28	26	26	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-75	SD-76	SD-77	SD-80	SD-81
SAMPLE ID	SD-75-02-D	SD-76-02	SD-77-02	SD-80-02	SD-81-02
SAMPLE DATE	20081112	20081111	20081110	20081114	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	22	22	22
BOTTOM DEPTH	28	28	26	26	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	440 U	800 U	480 U	980 U	850 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	440 U	800 U	480 U	980 U	850 U
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-75	SD-76	SD-77	SD-80	SD-81
SAMPLE ID	SD-75-02-D	SD-76-02	SD-77-02	SD-80-02	SD-81-02
SAMPLE DATE	20081112	20081111	20081110	20081114	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	22	22	22
BOTTOM DEPTH	28	28	26	26	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	290 J	380 J	480 U	980 U	850 U
ACENAPHTHYLENE	440 U	82 J	480 U	980 U	850 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	630	570 J	480 U	980 U	850 U
BAP EQUIVALENT	1111	5159	480 U	980 U	850 U
BAP EQUIVALENT-1/2 NON-DETECTS	1331	5159	480 U	980 U	850 U
BAP EQUIVALENT-POSITIVE RESULTS	1111	5159	480 U	980 U	850 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	1100 J	3000	480 U	980 U	850 U
BENZO(A)PYRENE	880 J	3100	480 U	980 U	850 U
BENZO(B)FLUORANTHENE	780 J	6300	480 U	980 U	850 U
BENZO(G,H,I)PERYLENE	300 J	2300	480 U	980 U	850 U
BENZO(K)FLUORANTHENE	880 J	1500	480 U	980 U	850 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	1200 J	4400	480 U	980 U	850 U
DIBENZO(A,H)ANTHRACENE	440 U	900	480 U	980 U	850 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	2100	6200	480 U	980 U	850 U
FLUORENE	340 J	250 J	480 U	980 U	850 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	330 J	2100	480 U	980 U	850 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	99 J	800 U	480 U	980 U	850 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	2200	2400	480 U	980 U	850 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	2700 J	6900	480 U	980 U	850 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	13829	40382	0 U	0 U	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-75	SD-76	SD-77	SD-80	SD-81
SAMPLE ID	SD-75-02-D	SD-76-02	SD-77-02	SD-80-02	SD-81-02
SAMPLE DATE	20081112	20081111	20081110	20081114	20081114
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	20	20	22	22	22
BOTTOM DEPTH	28	28	26	26	24
PCBS (UG/KG)					
AROCLOR-1016	27 U	40 U	24 U	49 U	42 U
AROCLOR-1221	27 U	40 U	24 U	49 U	42 U
AROCLOR-1232	27 U	40 U	24 U	49 U	42 U
AROCLOR-1242	27 U	40 U	24 U	49 U	42 U
AROCLOR-1248	27 U	40 U	24 U	49 U	42 U
AROCLOR-1254	27 U	40 U	24 U	49 U	42 U
AROCLOR-1260	27 U	180	24 U	49 U	42 U
TOTAL AROCLOR	0 U	180	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	3.2 J	1.3 L	0.15 UL	0.3 UL	0.27 UJ
ARSENIC	6.7	9.4	5.4	9.6	6.4
BARIUM	102 J	77.9	19.6	43.6	49.1
BERYLLIUM	1 J	1.5	1.5	2	1.7
CADMIUM	11.9	30.9	1.1	0.018 U	0.72
CHROMIUM	382 J	433	44.6	38.3	34.9
COBALT	7.9 J	13.8	9.2	18.6	15.9
COPPER	35 J	109	21.3	17.2	39
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	101	276	14.8	15.6	134
MERCURY	1.3	2.7	0.17	0.025	0.31
MOLYBDENUM	4.7	2.3	1.4	0.45 B	1.4 J
NICKEL	20.1 J	58.5	17.1	29.3	30
SELENIUM	1.2	1.4 L	0.67 K	0.98 U	1.9
SILVER	38	55.8	2.3	0.19 U	0.17 U
THALLIUM	0.28 U	0.41 U	0.25 U	0.51 U	0.46 U
VANADIUM	31.1 J	110 K	42.9 K	49.2	35.2
ZINC	462 J	537	54.4	88.4	133
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	61	41	70	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	23000
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-02	SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	24	24	24	24
BOTTOM DEPTH	26	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-02	SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	24	24	24	24
BOTTOM DEPTH	26	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	740 U	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	740 U	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-02	SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	24	24	24	24
BOTTOM DEPTH	26	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	740 U	0.44 U	1.2 U	1.2 U	2100
ACENAPHTHYLENE	740 U	0.52 U	8.1 J	1.4 U	190
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	740 U	0.77 J	4.5 J	1.2 U	2800
BAP EQUIVALENT	740 U	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	740 U	0.45 U	103	1.2 U	9537
BAP EQUIVALENT-POSITIVE RESULTS	740 U	0.45 U	103	1.2 U	9537
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	740 U	0.57 U	18	1.5 U	7100
BENZO(A)PYRENE	740 U	0.45 U	14	1.2 U	6100
BENZO(B)FLUORANTHENE	740 U	0.71 U	46	1.9 U	9600
BENZO(G,H,I)PERYLENE	740 U	0.45 U	37	1.2 U	3900
BENZO(K)FLUORANTHENE	740 U	0.92 U	2.5 U	2.5 U	35 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	740 U	0.54 U	20	1.5 U	7200
DIBENZO(A,H)ANTHRACENE	740 U	0.51 U	75	1.4 U	1400
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	740 U	3.6 J	32	1.3 U	15000
FLUORENE	740 U	1 J	4.6 J	1.6 U	1400
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	740 U	0.47 U	77	1.3 U	3600
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	740 U	0.39 U	1.1 U	1.1 U	300
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	740 U	3.1 J	19	3.8 J	9600
PHENOL	NA	NA	NA	NA	NA
PYRENE	740 U	2.2 J	22	1.2 U	12000
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	10.67	377.2	3.8	82290

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-82	SD-83	SD-84	SD-85	SD-86
SAMPLE ID	SD-82-02	SD-83-02	SD-84-02	SD-85-02	SD-86-02
SAMPLE DATE	20081114	20100820	20100820	20100819	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	22	24	24	24	24
BOTTOM DEPTH	26	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	37 U	1.7 U	2.3 U	2.3 U	2.6 U
AROCLOR-1221	37 U	2.1 U	3 U	2.9 U	3.3 U
AROCLOR-1232	37 U	1.9 U	2.7 U	2.6 U	3 U
AROCLOR-1242	37 U	1.8 U	2.5 U	2.5 U	2.8 U
AROCLOR-1248	37 U	1.1 U	1.5 U	1.5 U	430 J
AROCLOR-1254	37 U	1.6 U	2.2 U	2.2 U	2.5 U
AROCLOR-1260	37 U	1.6 U	2.2 U	2.2 U	250
TOTAL AROCLOR	0 U	0 U	0 U	0 U	680
METALS (MG/KG)					
ANTIMONY	0.21 UJ	0.097 B	0.5 L	0.05 B	5.3 J
ARSENIC	3.4	2 L	4.3 L	2 L	6.6 J
BARIUM	25.4	NA	NA	NA	NA
BERYLLIUM	0.93	0.62	2.7	1.3	1.9 J
CADMIUM	0.13 B	0.076 L	1.9 L	0.19 L	296
CHROMIUM	24.7	9.4	39.6	12.8	2060 J
COBALT	9.6	NA	NA	NA	NA
COPPER	14.7	8.7 L	28.4 L	9.7 L	147 J
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	10.1	7	38.1	4.9	250
MERCURY	0.028	0.036	0.14	0.02 J	0.37
MOLYBDENUM	1.4 J	NA	NA	NA	NA
NICKEL	15.3	8 L	34.3 L	11.2 L	59.7 J
SELENIUM	0.71 U	0.33 J	0.9 L	0.55 L	1.4 J
SILVER	0.13 U	0.027 J	0.081 J	0.038 J	3.2 J
THALLIUM	0.37 U	0.07	0.19	0.093	0.19
VANADIUM	28	NA	NA	NA	NA
ZINC	42.9	20.5 L	112 L	35.4 L	1570 J
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	8850	33400	25500	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	0.29 U	NA
CADMIUM	NA	NA	NA	0.0007 J	NA
CHROMIUM	NA	NA	NA	0.0089 J	NA
COPPER	NA	NA	NA	0.03	NA
LEAD	NA	NA	NA	0.011 J	NA
NICKEL	NA	NA	NA	0.044 J	NA
SILVER	NA	NA	NA	0.00025 U	NA
ZINC	NA	NA	NA	0.35 J	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-93
SAMPLE ID	SD-87-02	SD-88-02	SD-89-02	SD-90-02	SD-93-02
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-93
SAMPLE ID	SD-87-02	SD-88-02	SD-89-02	SD-90-02	SD-93-02
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-93
SAMPLE ID	SD-87-02	SD-88-02	SD-89-02	SD-90-02	SD-93-02
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	230	210	99 J	410	22 J
ACENAPHTHYLENE	320	260	240	460	26
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	740	670	330	1300	66
BAP EQUIVALENT	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	4683	3332	1486	7625	420
BAP EQUIVALENT-POSITIVE RESULTS	4683	3332	1486	7625	420
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	2500	2200	810	5000 J	250
BENZO(A)PYRENE	2900	2100	940	5100 J	240
BENZO(B)FLUORANTHENE	4600	3700	1300	7300 J	420
BENZO(G,H,I)PERYLENE	2300	1500	910	3100 J	220
BENZO(K)FLUORANTHENE	35 U	19 U	20 U	8 J	5.2 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	3100	2200	930	5400 J	260
DIBENZO(A,H)ANTHRACENE	860	510	250	1000 J	92
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	4600	5100	1800	13000	420
FLUORENE	180	260	130	560	23 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	2100	1300	840	2900 J	210
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	130 J	230	210	230	23 J
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	1500	1800	700	4600	190
PHENOL	NA	NA	NA	NA	NA
PYRENE	4900	3700	1500	7300 J	430
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	30960	25740	10989	57668	2892

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-87	SD-88	SD-89	SD-90	SD-93
SAMPLE ID	SD-87-02	SD-88-02	SD-89-02	SD-90-02	SD-93-02
SAMPLE DATE	20100818	20100819	20100819	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	2.6 U	3.5 U	3.7 U	3 U	2.3 U
AROCLOR-1221	3.3 U	4.5 U	4.7 U	3.8 U	3 U
AROCLOR-1232	3 U	4 U	4.3 U	3.4 U	2.7 U
AROCLOR-1242	2.8 U	3.8 U	4.1 U	3.3 U	2.5 U
AROCLOR-1248	1.6 U	2.2 U	2.4 U	1.9 U	1.5 U
AROCLOR-1254	2.5 U	3.3 U	3.5 U	2.8 U	2.2 U
AROCLOR-1260	770 J	220	1300	400	150
TOTAL AROCLOR	770	220	1300	400	150
METALS (MG/KG)					
ANTIMONY	2.4 L	2.2 J	1.3 L	3 J	0.46 L
ARSENIC	5.3	8.3 L	10.2	6.5	5.5
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.5	2.1 L	2.3	1.8	1.6
CADMIUM	207	35.5 J	30.2 L	38.7	17.9
CHROMIUM	1530	727 L	569	690	218
COBALT	NA	NA	NA	NA	NA
COPPER	112	72.2 L	121 L	82.7	42.9
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	288 K	158	226	195 J	73 K
MERCURY	0.76	2	2.5	4.7	1.1
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	43.8	38.8 L	54.6 L	46.1	27.4
SELENIUM	1.3	2 L	2.4 L	1.9	1.2
SILVER	8.5	13.6 L	23	29.3	8.1
THALLIUM	0.23	0.29	0.36	0.32 J	0.17
VANADIUM	NA	NA	NA	NA	NA
ZINC	762	572 L	492	524	213
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	28700	35900	37100	35900	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	4.4	5	0.74 J	18.7	NA
CADMIUM	1.4	0.25	0.19	0.22	NA
CHROMIUM	15.4	5.6	3.9	5.9	NA
COPPER	0.32	0.3	0.48	0.0021 U	NA
LEAD	1	0.5	0.68	0.47	NA
NICKEL	0.29	0.15	0.2	0.19	NA
SILVER	0.0048	0.0072	0.014	0.00066 J	NA
ZINC	9.3	6	4.1	5.3	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-94	SD-95	SD-96	SD-97	SD-98
SAMPLE ID	SD-94-02	SD-95-02	SD-96-02	SD-97-02	SD-98-02
SAMPLE DATE	20100817	20100817	20100819	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-94	SD-95	SD-96	SD-97	SD-98
SAMPLE ID	SD-94-02	SD-95-02	SD-96-02	SD-97-02	SD-98-02
SAMPLE DATE	20100817	20100817	20100819	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-94	SD-95	SD-96	SD-97	SD-98
SAMPLE ID	SD-94-02	SD-95-02	SD-96-02	SD-97-02	SD-98-02
SAMPLE DATE	20100817	20100817	20100819	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	3.5 U	34 J	110	4.1 U	63 J
ACENAPHTHYLENE	4.2 U	51	200	11 J	160
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	3.6 U	110	300	17 J	230
BAP EQUIVALENT	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	3.6 U	751	1332	58.5	1023
BAP EQUIVALENT-POSITIVE RESULTS	3.6 U	751	1332	58.5	1023
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	4.5 U	400	750	48	560
BENZO(A)PYRENE	3.6 U	450	740	34 J	570
BENZO(B)FLUORANTHENE	5.7 U	750	1400	67 J	1100
BENZO(G,H,I)PERYLENE	3.6 U	390	760	80 J	600
BENZO(K)FLUORANTHENE	7.3 U	8 U	19 U	8.6 UJ	19 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	4.3 U	450	770	90	580
DIBENZO(A,H)ANTHRACENE	4 U	150	310	4.7 J	230
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	3.9 U	670	1500	150	990
FLUORENE	4.8 U	48	120	5.6 U	75 J
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	3.7 U	360	660	82 J	560
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	3.1 U	68	180	3.7 U	160
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	5.8 U	320	660	40 J	440
PHENOL	NA	NA	NA	NA	NA
PYRENE	3.7 U	800	1400	100	1000
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	5051	9860	723.7	7318

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-94	SD-95	SD-96	SD-97	SD-98
SAMPLE ID	SD-94-02	SD-95-02	SD-96-02	SD-97-02	SD-98-02
SAMPLE DATE	20100817	20100817	20100819	20100817	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	2.7 U	3.7 U	3.4 U	3.2 U	3.5 U
AROCLOR-1221	3.5 U	4.7 U	4.4 U	4.1 U	4.5 U
AROCLOR-1232	3.1 U	4.3 U	3.9 U	3.7 U	4 U
AROCLOR-1242	3 U	4.1 U	3.8 U	3.5 U	3.8 U
AROCLOR-1248	1.7 U	2.4 U	2.2 U	2 U	2.2 U
AROCLOR-1254	2.6 U	3.5 U	3.3 U	3 U	3.4 U
AROCLOR-1260	2.6 U	290	770	3 U	880
TOTAL AROCLOR	0 U	290	770	0 U	880
METALS (MG/KG)					
ANTIMONY	0.048 J	0.92 L	0.83 J	0.17 J	0.7 J
ARSENIC	4.4	8.8	8.2 L	6.2	7.8 L
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.7	2	1.8 L	1.8	1.8 L
CADMIUM	0.37	31.1	25.9 J	2.5	19.2 J
CHROMIUM	24.7	534	441 L	80.6	304 L
COBALT	NA	NA	NA	NA	NA
COPPER	15.9	100	88.1 L	21.7	88.8 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	7.4 J	191 K	163	24.4 J	165
MERCURY	0.024 J	2.7	1.8	0.1	0.97
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	17	49.7	41.1 L	23	40.8 L
SELENIUM	1	2.1	1.9 L	1.3	1.8 L
SILVER	0.055 J	26.8	14.4 L	0.73	8.3 L
THALLIUM	0.12 J	0.31	0.27 K	0.17 J	0.29
VANADIUM	NA	NA	NA	NA	NA
ZINC	52.8	456	387 L	102	379 L
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-99	SD-100	SD-100	SD-100	SD-101
SAMPLE ID	SD-99-02	SD-100-02	SD-100-02-AVG	SD-100-02-D	SD-101-02
SAMPLE DATE	20100819	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-99	SD-100	SD-100	SD-100	SD-101
SAMPLE ID	SD-99-02	SD-100-02	SD-100-02-AVG	SD-100-02-D	SD-101-02
SAMPLE DATE	20100819	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-99	SD-100	SD-100	SD-100	SD-101
SAMPLE ID	SD-99-02	SD-100-02	SD-100-02-AVG	SD-100-02-D	SD-101-02
SAMPLE DATE	20100819	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	8.4 U	6.8 U	6.5 U	6.2 U	29 J
ACENAPHTHYLENE	10 U	8.1 U	7.75 U	7.4 U	50
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	8.5 U	6.9 U	6.65 U	6.4 U	110
BAP EQUIVALENT	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	8.7 U	7 U	6.75 U	6.5 U	580
BAP EQUIVALENT-POSITIVE RESULTS	8.7 U	7 U	6.75 U	6.5 U	580
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	11 U	8.8 U	8.45 U	8.1 U	320
BENZO(A)PYRENE	8.7 U	7 U	6.75 U	6.5 U	340
BENZO(B)FLUORANTHENE	14 U	11 U	10.5 U	10 U	580
BENZO(G,H,I)PERYLENE	8.7 U	7 U	6.75 U	6.5 U	310
BENZO(K)FLUORANTHENE	18 U	14 U	13.5 U	13 U	9.7 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	10 U	8.4 U	8.05 U	7.7 U	350
DIBENZO(A,H)ANTHRACENE	9.7 U	7.8 U	7.5 U	7.2 U	120
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	9.3 U	7.5 U	7.25 U	7 U	520
FLUORENE	11 U	9.3 U	8.95 U	8.6 U	58
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	9 U	7.3 U	7 U	6.7 U	300
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	7.5 U	6.1 U	5.85 U	5.6 U	120
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	14 U	11 U	10.5 U	10 U	300
PHENOL	NA	NA	NA	NA	NA
PYRENE	8.8 U	7.1 U	6.85 U	6.6 U	610
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	0 U	0 U	0 U	0 U	4117

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-99	SD-100	SD-100	SD-100	SD-101
SAMPLE ID	SD-99-02	SD-100-02	SD-100-02-AVG	SD-100-02-D	SD-101-02
SAMPLE DATE	20100819	20100819	20100819	20100819	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	3.3 U	2.6 U	2.5 U	2.4 U	3.5 U
AROCLOR-1221	4.2 U	3.4 U	3.25 U	3.1 U	4.5 U
AROCLOR-1232	3.8 U	3 U	2.9 U	2.8 U	4 U
AROCLOR-1242	3.6 U	2.9 U	2.75 U	2.6 U	3.8 U
AROCLOR-1248	2.1 U	1.7 U	1.6 U	1.5 U	2.2 U
AROCLOR-1254	3.1 U	2.5 U	2.4 U	2.3 U	3.4 U
AROCLOR-1260	3.1 U	2.5 U	2.4 U	2.3 U	62
TOTAL AROCLOR	0 U	0 U	0 U	0 U	62
METALS (MG/KG)					
ANTIMONY	0.082 B	0.066 B	0.058 B	0.05 B	0.86 L
ARSENIC	6.1	3.8 L	3.85 L	3.9 L	8.7
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.8	1 L	1.05 L	1.1 L	2.1
CADMIUM	0.4 L	0.2 J	0.225 J	0.25 J	44.7
CHROMIUM	29.6	19.4 L	19.45 L	19.5 L	719
COBALT	NA	NA	NA	NA	NA
COPPER	19.7 L	12.3 J	18 J	23.7 J	83.3
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	12.8	9	9.1	9.2	169 K
MERCURY	0.037 J	0.031 J	0.027 J	0.023 J	1.6
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	22.3 L	14.1 L	14.2 L	14.3 L	46.6
SELENIUM	1.2 L	0.71 L	0.72 L	0.73 L	2.2
SILVER	0.066 J	0.043 J	0.045 J	0.047 J	12.8
THALLIUM	0.18 K	0.12 K	0.12 K	0.12 K	0.31
VANADIUM	NA	NA	NA	NA	NA
ZINC	74.8	47.4 L	48.2 L	49 L	479
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	34900	NA	NA	NA	28400
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	0.41 U	NA	NA	NA	4.4
CADMIUM	0.0013 J	NA	NA	NA	0.27
CHROMIUM	0.032	NA	NA	NA	4.9
COPPER	0.023 J	NA	NA	NA	0.43
LEAD	0.017	NA	NA	NA	0.47
NICKEL	0.039 J	NA	NA	NA	0.21
SILVER	0.00036 U	NA	NA	NA	0.0067
ZINC	0.43	NA	NA	NA	4.2

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-102	SD-103	SD-104	SD-105	SD-106
SAMPLE ID	SD-102-02	SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
VOLATILES (UG/KG)					
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	NA	NA
2-CHLOROTOLUENE	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA
4-CHLOROTOLUENE	NA	NA	NA	NA	NA
4-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA
DIISOPROPYL ETHER	NA	NA	NA	NA	NA
ETHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-102	SD-103	SD-104	SD-105	SD-106
SAMPLE ID	SD-102-02	SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
ISOPROPYLBENZENE	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA
TERT-AMYL METHYL ETHER	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA
TOTAL 1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/KG)					
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-102	SD-103	SD-104	SD-105	SD-106
SAMPLE ID	SD-102-02	SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA
ACENAPHTHENE	25 J	0.39 U	1.8 U	20 J	9.2 U
ACENAPHTHYLENE	56 J	0.46 U	2.1 U	32 J	11 U
ANILINE	NA	NA	NA	NA	NA
ANTHRACENE	97 J	0.4 U	1.8 U	69 J	9.3 U
BAP EQUIVALENT	NA	NA	NA	NA	NA
BAP EQUIVALENT-1/2 NON-DETECTS	452	0.4 U	1.8 U	535	9.6 U
BAP EQUIVALENT-POSITIVE RESULTS	446	0.4 U	1.8 U	535	9.6 U
BENZIDINE	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	280	0.51 U	2.3 U	170	12 U
BENZO(A)PYRENE	320	0.4 U	1.8 U	240	9.6 U
BENZO(B)FLUORANTHENE	580	0.64 U	2.9 U	420	15 U
BENZO(G,H,I)PERYLENE	410	0.4 U	1.8 U	380	9.5 U
BENZO(K)FLUORANTHENE	21 U	0.82 U	3.7 U	20 U	19 U
BENZOIC ACID	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA
CHRYSENE	370	0.48 U	2.2 U	250	11 U
DIBENZO(A,H)ANTHRACENE	12 U	0.45 U	2 U	200	11 U
DIBENZOFURAN	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA
FLUORANTHENE	600	0.43 U	2 U	330	10 U
FLUORENE	69 J	0.53 U	2.4 U	29 J	13 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	400	0.42 U	1.9 U	360	9.8 U
ISOPHORONE	NA	NA	NA	NA	NA
NAPHTHALENE	130	0.35 U	1.6 U	78 J	8.2 U
NITROBENZENE	NA	NA	NA	NA	NA
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA
PHENANTHRENE	280	1.2 J	4.3 J	190	15 U
PHENOL	NA	NA	NA	NA	NA
PYRENE	640	0.41 U	1.9 U	470	9.7 U
PYRIDINE	NA	NA	NA	NA	NA
TOTAL PAHS	4257	1.2	4.3	3238	0 U

Table C-3
Summary of Analytical Results for Subsurface Sediment, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-102	SD-103	SD-104	SD-105	SD-106
SAMPLE ID	SD-102-02	SD-103-02	SD-104-02	SD-105-02	SD-106-02
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	24	24	24	24	24
BOTTOM DEPTH	24	24	24	24	24
PCBS (UG/KG)					
AROCLOR-1016	3.8 U	1.5 U	3.3 U	3.8 U	3.5 U
AROCLOR-1221	4.9 U	1.9 U	4.3 U	4.9 U	4.6 U
AROCLOR-1232	4.4 U	1.7 U	3.8 U	4.4 U	4.1 U
AROCLOR-1242	4.2 U	1.6 U	3.6 U	4.1 U	3.9 U
AROCLOR-1248	2.4 U	0.96 U	2.1 U	2.4 U	2.3 U
AROCLOR-1254	3.6 U	1.4 U	3.2 U	3.6 U	3.4 U
AROCLOR-1260	160	1.4 U	3.2 U	140	3.4 U
TOTAL AROCLOR	160	0 U	0 U	140	0 U
METALS (MG/KG)					
ANTIMONY	1 J	0.057 B	0.095 B	0.75 J	0.07 B
ARSENIC	9.3	1.4	6	9.2	4.9 L
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	2.2 J	0.22 J	1.7 J	2.1 J	1.4 L
CADMIUM	34.9	0.13	0.39	10.9	0.29 J
CHROMIUM	647 K	15.7 K	35.9 K	260 K	27.9 L
COBALT	NA	NA	NA	NA	NA
COPPER	99.5	22.1	18.9	113	16 L
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA
LEAD	207	6.9 J	13.5	182	12.5
MERCURY	1.6	0.0066 U	0.043 J	0.75	0.041 J
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	54.5	0.67	22.7	47.4	20.5 L
SELENIUM	2.3	0.81	1.1	2.1	1 L
SILVER	18.4 J	0.0088 J	0.064 J	4 J	0.055 J
THALLIUM	0.36	0.059 J	0.2	0.28	0.18 K
VANADIUM	NA	NA	NA	NA	NA
ZINC	497	2	72.3	418	70.2 L
METALS (UG/KG)					
DIBUTYLTIN	NA	NA	NA	NA	NA
MONOBUTYLTIN	NA	NA	NA	NA	NA
TETRABUTYLTIN	NA	NA	NA	NA	NA
TRIBUTYLTIN	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Definitions:

B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not applicable or not available
R = Rejected
SB = Subsurface sediment
SD = Sediment
U = Non-detected

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-43	SD-44
SAMPLE ID	BOWLEYS_QUARTERS-04	MIDDLE_RIVER_DOWNSTREAM-04	MARSHY_POINT-04	SD-43-04	SD-44-04
SAMPLE DATE	20100821	20100820	20100821	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	36	30
BOTTOM DEPTH	48	48	48	40	34
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	NA	NA	NA	450 U	670 U
2-METHYLNAPHTHALENE	NA	NA	NA	450 U	670 U
ACENAPHTHENE	2.3 U	1.9 U	4.3 U	450 U	670 U
ACENAPHTHYLENE	2.8 U	2.3 U	5.1 U	450 U	670 U
ANTHRACENE	2.4 U	2 U	4.4 U	450 U	670 U
BAP EQUIVALENT-1/2 NON-DETECTS	2.4 U	2 U	4.5 U	450 U	670 U
BAP EQUIVALENT-POSITIVE RESULTS	2.4 U	2 U	4.5 U	450 U	670 U
BENZO(A)ANTHRACENE	3.1 U	2.5 U	5.6 U	450 U	670 U
BENZO(A)PYRENE	2.4 U	2 U	4.5 U	450 U	670 U
BENZO(B)FLUORANTHENE	3.8 U	3.2 U	7 U	450 U	670 U
BENZO(G,H,I)PERYLENE	2.4 U	2 U	4.4 U	450 U	670 U
BENZO(K)FLUORANTHENE	4.9 U	4.1 U	9 U	450 U	670 U
CHRYSENE	2.9 U	2.4 U	5.3 U	450 U	670 U
DIBENZO(A,H)ANTHRACENE	2.7 U	2.2 U	5 U	450 U	670 U
FLUORANTHENE	2.6 U	2.1 U	4.8 U	450 U	670 U
FLUORENE	3.2 U	2.6 U	5.9 U	450 U	670 U
INDENO(1,2,3-CD)PYRENE	2.5 U	2.1 U	4.6 U	450 U	670 U
NAPHTHALENE	2.1 U	1.7 U	3.8 U	450 U	670 U
PHENANTHRENE	3.9 U	3.2 U	7.1 U	450 U	670 U
PYRENE	2.5 U	2 U	4.5 U	450 U	670 U
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	1.8 U	3.7 U	3.3 U	28 U	33 U
AROCLOR-1221	2.3 U	4.8 U	4.2 U	28 U	33 U
AROCLOR-1232	2.1 U	4.3 U	3.7 U	28 U	33 U
AROCLOR-1242	2 U	4.1 U	3.6 U	28 U	33 U
AROCLOR-1248	1.2 U	2.4 U	2.1 U	28 U	33 U
AROCLOR-1254	1.7 U	3.6 U	3.1 U	28 U	33 U
AROCLOR-1260	1.7 U	3.6 U	3.1 U	28 U	33 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.032 J	0.48 B	0.079 J	0.16 U	0.19 U
ARSENIC	1.6	5.7 L	6.8	3	2.3
BARIUM	NA	NA	NA	46.1 J	27.7
BERYLLIUM	0.33	1.6	1.4	1.1 J	2.4
CADMIUM	0.096	0.64 L	0.34	0.12 B	0.15
CHROMIUM	8.9	33.7	32.9	24.1 J	18.5
COBALT	NA	NA	NA	9.4	16.6
COPPER	4.9	18.8 L	14	13.3 J	12.6
LEAD	4.3	16.6	18.6	8.1 J	6.3
MERCURY	0.008 U	0.045 J	0.051	0.039 B	0.015
MOLYBDENUM	NA	NA	NA	0.56	1.5
NICKEL	6.6	24.8 L	27.3	13.8	18.5
SELENIUM	0.42	1 L	1.1	0.94	1
SILVER	0.026 J	0.062 J	0.07 J	0.11 B	0.17
THALLIUM	0.061 J	0.19	0.19	0.27 U	0.33 U
VANADIUM	NA	NA	NA	42.5 J	27.7
ZINC	23.1	101 L	94.7	32	48.9

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	BOWLEY	DOWNSTREAM	MARSHY_POINT	SD-43	SD-44
SAMPLE ID	BOWLEYS_QUARTERS-04	MIDDLE_RIVER_DOWNSTREAM-04	MARSHY_POINT-04	SD-43-04	SD-44-04
SAMPLE DATE	20100821	20100820	20100821	20081117	20081117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	BACKGROUND	OFFSITE	BACKGROUND	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	36	30
BOTTOM DEPTH	48	48	48	40	34
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	60	50
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	32000	NA	NA	30000
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-47	SD-47
SAMPLE ID	SD-45-04	SD-46-04	SD-47-04	SD-47-04-AVG	SD-47-04-D
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	45	46	43	43	43
BOTTOM DEPTH	49	50	51	51	51
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	680 U	740 U	400 U	400 U	400 U
2-METHYLNAPHTHALENE	680 U	740 U	400 U	400 U	400 U
ACENAPHTHENE	680 U	740 U	400 U	400 U	400 U
ACENAPHTHYLENE	680 U	740 U	400 U	400 U	400 U
ANTHRACENE	680 U	740 U	400 U	400 U	400 U
BAP EQUIVALENT-1/2 NON-DETECTS	680 U	740 U	400 U	400 U	400 U
BAP EQUIVALENT-POSITIVE RESULTS	680 U	740 U	400 U	400 U	400 U
BENZO(A)ANTHRACENE	680 U	740 U	400 U	400 U	400 U
BENZO(A)PYRENE	680 U	740 U	400 U	400 U	400 U
BENZO(B)FLUORANTHENE	680 U	740 U	400 U	400 U	400 U
BENZO(G,H,I)PERYLENE	680 U	740 U	400 U	400 U	400 U
BENZO(K)FLUORANTHENE	680 U	740 U	400 U	400 U	400 U
CHRYSENE	680 U	740 U	400 U	400 U	400 U
DIBENZO(A,H)ANTHRACENE	680 U	740 U	400 U	400 U	400 U
FLUORANTHENE	680 U	740 U	400 U	400 U	400 U
FLUORENE	680 U	740 U	400 U	400 U	400 U
INDENO(1,2,3-CD)PYRENE	680 U	740 U	400 U	400 U	400 U
NAPHTHALENE	680 U	740 U	400 U	400 U	400 U
PHENANTHRENE	680 U	740 U	400 U	400 U	400 U
PYRENE	680 U	740 U	400 U	400 U	400 U
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	34 U	37 U	20 U	20 U	20 U
AROCLOR-1221	34 U	37 U	20 U	20 U	20 U
AROCLOR-1232	34 U	37 U	20 U	20 U	20 U
AROCLOR-1242	34 U	37 U	20 U	20 U	20 U
AROCLOR-1248	34 U	37 U	20 U	20 U	20 U
AROCLOR-1254	34 U	37 U	20 U	20 U	20 U
AROCLOR-1260	34 U	37 U	20 U	20 U	20 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.2 U	0.22 UL	0.12 UL	0.12 UL	0.12 UL
ARSENIC	3.8	4.5	2.2	2.35	2.5
BARIUM	22.8	27.5	11.9	11.35	10.8
BERYLLIUM	1.5	1.9	1.6	1.65	1.7
CADMIUM	0.19	0.23	0.13	0.14	0.15
CHROMIUM	21.4	25.9	16.6	16.85	17.1
COBALT	10	13.6	2.9	2.75	2.6
COPPER	12.4	16.5	7.7	7.8	7.9
LEAD	7.2	9.6	4.1	3.95	3.8
MERCURY	0.022	0.057 B	0.014 B	0.014 B	0.014 B
MOLYBDENUM	1.3	1.1	0.45	0.455	0.46
NICKEL	12.8	18.3	11.6	11.6	11.6
SELENIUM	0.97	0.74	0.91	0.905	0.9
SILVER	0.16	0.14	0.18	0.225	0.27
THALLIUM	0.34 U	0.37 U	0.21 U	0.21 U	0.21 U
VANADIUM	25.7	34.9	27.7	27.85	28
ZINC	44.7	53.1	28.3	28.3	28.3

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-45	SD-46	SD-47	SD-47	SD-47
SAMPLE ID	SD-45-04	SD-46-04	SD-47-04	SD-47-04-AVG	SD-47-04-D
SAMPLE DATE	20081117	20081115	20081115	20081115	20081115
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	45	46	43	43	43
BOTTOM DEPTH	49	50	51	51	51
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	49	45	82	82.5	83
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	20000	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-48	SD-49	SD-50	SD-51	SD-53
SAMPLE ID	SD-48-04	SD-49-04	SD-50-04	SD-51-04	SD-53-04
SAMPLE DATE	20081115	20081115	20081114	20081115	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	46	44	46	42
BOTTOM DEPTH	50	50	48	50	46
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	400 U	470 U	720 U	870 U	600 U
2-METHYLNAPHTHALENE	400 U	470 U	720 U	870 U	600 U
ACENAPHTHENE	400 U	470 U	720 U	870 U	600 U
ACENAPHTHYLENE	400 U	470 U	720 U	870 U	600 U
ANTHRACENE	400 U	470 U	720 U	870 U	600 U
BAP EQUIVALENT-1/2 NON-DETECTS	400 U	470 U	810	870 U	600 U
BAP EQUIVALENT-POSITIVE RESULTS	400 U	470 U	18.2	870 U	600 U
BENZO(A)ANTHRACENE	400 U	470 U	720 U	870 U	600 U
BENZO(A)PYRENE	400 U	470 U	720 U	870 U	600 U
BENZO(B)FLUORANTHENE	400 U	470 U	160 J	870 U	600 U
BENZO(G,H,I)PERYLENE	400 U	470 U	720 U	870 U	600 U
BENZO(K)FLUORANTHENE	400 U	470 U	200 J	870 U	600 U
CHRYSENE	400 U	470 U	220 J	870 U	600 U
DIBENZO(A,H)ANTHRACENE	400 U	470 U	720 U	870 U	600 U
FLUORANTHENE	400 U	470 U	360 J	870 U	600 U
FLUORENE	400 U	470 U	720 U	870 U	600 U
INDENO(1,2,3-CD)PYRENE	400 U	470 U	720 U	870 U	600 U
NAPHTHALENE	400 U	470 U	720 U	870 U	600 U
PHENANTHRENE	400 U	470 U	180 J	870 U	600 U
PYRENE	400 U	470 U	480 J	870 U	600 U
TOTAL PAHS	0 U	0 U	1600	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	20 U	30 U	36 U	44 U	30 U
AROCLOR-1221	20 U	30 U	720 UJ	44 U	30 U
AROCLOR-1232	20 U	30 U	720 UJ	44 U	30 U
AROCLOR-1242	20 U	30 U	720 UJ	44 U	30 U
AROCLOR-1248	20 U	30 U	720 UJ	44 U	30 U
AROCLOR-1254	20 U	30 U	720 UJ	44 U	30 U
AROCLOR-1260	20 U	30 U	36 U	44 U	30 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.11 UL	0.17 U	0.21 UJ	0.27 UL	0.18 UL
ARSENIC	0.75 B	3.5	7.4	8.8	4.6
BARIUM	11.6	18.3 J	37.4	48.2	18.2
BERYLLIUM	0.46	1.1 J	1.8	2.2	1.2
CADMIUM	0.022	0.14 B	12	3.6	0.054
CHROMIUM	13.8	18.4 J	242	153	19.4
COBALT	1.3	8.7	16	20	6.5
COPPER	5	10.8 J	34.2	42.3	12.6
LEAD	4.5	8.3 J	46.9	76.6	6.5
MERCURY	0.037 B	0.027 B	0.43	0.24	0.023
MOLYBDENUM	0.16 B	0.96	1.1 J	1.3	0.78
NICKEL	3.9	12.2	27.5	30.4	12.1
SELENIUM	0.37 U	0.67	1	1.8	0.99
SILVER	0.072 U	0.11 U	2.7	1.8	0.11 U
THALLIUM	0.2 U	0.3 U	0.37 U	0.46 U	0.3 U
VANADIUM	23.7	18.8 J	34.5	45	21.3
ZINC	7	45.3	190	146	36.3

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-48	SD-49	SD-50	SD-51	SD-53
SAMPLE ID	SD-48-04	SD-49-04	SD-50-04	SD-51-04	SD-53-04
SAMPLE DATE	20081115	20081115	20081114	20081115	20081114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	46	44	46	42
BOTTOM DEPTH	50	50	48	50	46
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	84	56	NA	38	55
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	14000	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-56	SD-56	SD-56	SD-57
SAMPLE ID	SD-54-04	SD-56-04	SD-56-04-AVG	SD-56-04-D	SD-57-04
SAMPLE DATE	20081114	20081113	20081113	20081113	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	40	44	44	44	44
BOTTOM DEPTH	44	52	52	52	48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	530 U	640 U	645 U	650 U	770 U
2-METHYLNAPHTHALENE	530 U	640 U	645 U	650 U	770 U
ACENAPHTHENE	530 U	640 U	645 U	650 U	770 U
ACENAPHTHYLENE	530 U	640 U	645 U	650 U	770 U
ANTHRACENE	530 U	640 U	645 U	650 U	770 U
BAP EQUIVALENT-1/2 NON-DETECTS	530 U	640 U	645 U	650 U	770 U
BAP EQUIVALENT-POSITIVE RESULTS	530 U	640 U	645 U	650 U	770 U
BENZO(A)ANTHRACENE	530 U	640 U	645 U	650 U	770 U
BENZO(A)PYRENE	530 U	640 U	645 U	650 U	770 U
BENZO(B)FLUORANTHENE	530 U	640 U	645 U	650 U	770 U
BENZO(G,H,I)PERYLENE	530 U	640 U	645 U	650 U	770 U
BENZO(K)FLUORANTHENE	530 U	640 U	645 U	650 U	770 U
CHRYSENE	530 U	640 U	645 U	650 U	770 U
DIBENZO(A,H)ANTHRACENE	530 U	640 U	645 U	650 U	770 U
FLUORANTHENE	530 U	79 J	79 J	650 U	770 U
FLUORENE	530 U	640 U	645 U	650 U	770 U
INDENO(1,2,3-CD)PYRENE	530 U	640 U	645 U	650 U	770 U
NAPHTHALENE	530 U	640 U	645 U	650 U	770 U
PHENANTHRENE	530 U	640 U	645 U	650 U	770 U
PYRENE	530 U	640 U	645 U	650 U	770 U
TOTAL PAHS	0 U	79	79	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	27 U	32 U	32 U	32 U	39 U
AROCLOR-1221	27 U	32 U	32 U	32 U	39 U
AROCLOR-1232	27 U	32 U	32 U	32 U	39 U
AROCLOR-1242	27 U	32 U	32 U	32 U	39 U
AROCLOR-1248	27 U	32 U	32 U	32 U	39 U
AROCLOR-1254	27 U	32 U	32 U	32 U	39 U
AROCLOR-1260	27 U	32 U	32 U	32 U	39 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.16 UL	0.19 UL	0.195 UL	0.2 UL	0.24 UJ
ARSENIC	2.6	5.8	5.95	6.1	8.5
BARIUM	16	27.2	27.4	27.6	27.6
BERYLLIUM	2.3	1.9	1.95	2	1.9
CADMIUM	0.0092 U	3.6	3.5	3.4	0.014 U
CHROMIUM	19.6	79.2	78.95	78.7	31.6
COBALT	8	11.3	11.45	11.6	12
COPPER	10.9	29.2	29.75	30.3	18.3
LEAD	6.5	24.5	24.7	24.9	10.6
MERCURY	0.023	0.087	0.0905	0.094	0.022
MOLYBDENUM	0.91	1.1	1.15	1.2	1 B
NICKEL	17.4	23.6	24.15	24.7	21.7
SELENIUM	0.94	1.1	1.15	1.2	0.84
SILVER	0.13	1.5	1.5	1.5	0.15 U
THALLIUM	0.27 U	0.32 U	0.33 U	0.34 U	0.41 U
VANADIUM	31	41.5	43.2	44.9	36.9
ZINC	34.7	81.3	82.15	83	63.2

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-54	SD-56	SD-56	SD-56	SD-57
SAMPLE ID	SD-54-04	SD-56-04	SD-56-04-AVG	SD-56-04-D	SD-57-04
SAMPLE DATE	20081114	20081113	20081113	20081113	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	40	44	44	44	44
BOTTOM DEPTH	44	52	52	52	48
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	63	52	52	52	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-04	SD-59-04	SD-60-04	SD-61-04	SD-62-04
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	45	46	38	46	46
BOTTOM DEPTH	49	50	42	50	50
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	620 U	340 U	340 U	400 U	350 U
2-METHYLNAPHTHALENE	620 U	340 U	340 U	400 U	350 U
ACENAPHTHENE	620 U	340 U	340 U	400 U	350 U
ACENAPHTHYLENE	620 U	340 U	340 U	400 U	350 U
ANTHRACENE	620 U	340 U	340 U	400 U	350 U
BAP EQUIVALENT-1/2 NON-DETECTS	716	340 U	340 U	400 U	350 U
BAP EQUIVALENT-POSITIVE RESULTS	0.090	340 U	340 U	400 U	350 U
BENZO(A)ANTHRACENE	620 U	340 U	340 U	400 U	350 U
BENZO(A)PYRENE	620 U	340 U	340 U	400 U	350 U
BENZO(B)FLUORANTHENE	620 U	340 U	340 U	400 U	350 U
BENZO(G,H,I)PERYLENE	620 U	340 U	340 U	400 U	350 U
BENZO(K)FLUORANTHENE	620 U	340 U	340 U	400 U	350 U
CHRYSENE	90 J	340 U	340 U	400 U	350 U
DIBENZO(A,H)ANTHRACENE	620 U	340 U	340 U	400 U	350 U
FLUORANTHENE	180 J	340 U	340 U	400 U	350 U
FLUORENE	620 U	340 U	340 U	400 U	350 U
INDENO(1,2,3-CD)PYRENE	620 U	340 U	340 U	400 U	350 U
NAPHTHALENE	620 U	340 U	340 U	400 U	350 U
PHENANTHRENE	160 J	340 U	340 U	400 U	350 U
PYRENE	180 J	340 U	340 U	400 U	350 UJ
TOTAL PAHS	610	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	31 U	22 U	21 U	20 U	22 U
AROCLOR-1221	31 U	22 U	21 U	20 U	22 U
AROCLOR-1232	31 U	22 U	21 U	20 U	22 U
AROCLOR-1242	31 U	22 U	21 U	20 U	22 U
AROCLOR-1248	31 U	22 U	21 U	20 U	22 U
AROCLOR-1254	31 U	22 U	21 U	20 U	22 U
AROCLOR-1260	31 U	22 U	21 U	20 U	22 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.19 UJ	0.12 U	0.22 J	0.12 UL	0.13 UL
ARSENIC	8.1	2.1	3.3	1.1	9.9
BARIUM	33.2	9.2 J	15.7 J	4.4	12.2 J
BERYLLIUM	2.8	2.4 J	0.76 J	0.17	1.6 J
CADMIUM	0.012 U	0.0072 U	0.0077 U	0.0073 U	0.017 J
CHROMIUM	39.7	19.8 J	20.7 J	8	15.8 J
COBALT	16.2	4.5	2.6 J	0.76	2.9 J
COPPER	19.4	7.5 J	7.3 J	1.6	11.7 J
LEAD	11.5	5.8 J	5.4	1.5	5.2 J
MERCURY	0.015	0.015 B	0.0087	0.0072 U	0.011 B
MOLYBDENUM	1.7	0.5	0.32	0.052	0.22 J
NICKEL	39.6	15	10.8 J	2.7	10.5 J
SELENIUM	0.72	0.67	0.53	0.41 U	0.43 UL
SILVER	0.12 U	0.077 U	0.082 U	0.078 U	0.083 UL
THALLIUM	0.33 U	0.21 U	0.22 U	0.21 U	0.23 U
VANADIUM	48.1	30.3 J	31.2 J	13.7	22.8 J
ZINC	78.4	24.5	21.4 J	3.8	19 J

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-58	SD-59	SD-60	SD-61	SD-62
SAMPLE ID	SD-58-04	SD-59-04	SD-60-04	SD-61-04	SD-62-04
SAMPLE DATE	20081114	20081115	20081112	20081113	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	45	46	38	46	46
BOTTOM DEPTH	49	50	42	50	50
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	77	78	83	77
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	2000
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-04	SD-64-04	SD-65-04	SD-66-04	SD-67-04
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	46	37	39	46
BOTTOM DEPTH	50	50	41	43	50
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	340 U	660 U	410 UJ	360 U	470 UJ
2-METHYLNAPHTHALENE	340 U	660 U	410 UJ	360 U	470 UJ
ACENAPHTHENE	340 U	660 U	410 UJ	360 U	470 UJ
ACENAPHTHYLENE	340 U	660 U	410 UJ	360 U	470 UJ
ANTHRACENE	340 U	660 U	410 UJ	360 U	470 UJ
BAP EQUIVALENT-1/2 NON-DETECTS	340 U	660 U	410 U	360 U	470 U
BAP EQUIVALENT-POSITIVE RESULTS	340 U	660 U	410 U	360 U	470 U
BENZO(A)ANTHRACENE	340 U	660 U	410 UJ	360 U	470 UJ
BENZO(A)PYRENE	340 U	660 U	410 UJ	360 U	470 UJ
BENZO(B)FLUORANTHENE	340 U	660 U	410 UJ	360 U	470 UJ
BENZO(G,H,I)PERYLENE	340 U	660 U	410 UJ	360 U	470 UJ
BENZO(K)FLUORANTHENE	340 U	660 U	410 UJ	360 U	470 UJ
CHRYSENE	340 U	660 U	410 UJ	360 U	470 UJ
DIBENZO(A,H)ANTHRACENE	340 U	660 U	410 UJ	360 U	470 UJ
FLUORANTHENE	340 U	660 U	410 UJ	360 U	470 UJ
FLUORENE	340 U	660 U	410 UJ	360 U	470 UJ
INDENO(1,2,3-CD)PYRENE	340 U	660 U	410 UJ	360 U	470 UJ
NAPHTHALENE	340 U	660 U	410 UJ	360 U	470 UJ
PHENANTHRENE	340 U	660 U	410 UJ	360 U	470 UJ
PYRENE	340 UJ	660 U	410 UJ	360 U	470 UJ
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	21 U	41 U	21 U	22 U	24 U
AROCLOR-1221	21 U	41 U	21 U	22 U	24 U
AROCLOR-1232	21 U	41 U	21 U	22 U	24 U
AROCLOR-1242	21 U	41 U	21 U	22 U	24 U
AROCLOR-1248	21 U	41 U	21 U	22 U	24 U
AROCLOR-1254	21 U	41 U	21 U	22 U	24 U
AROCLOR-1260	21 U	41 U	21 U	22 U	24 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.13 UL	0.24 UL	0.12 UJ	0.14 UL	0.14 UJ
ARSENIC	1.8	6.8	6.8	1.5	4.6
BARIUM	10.6 J	31.9 J	19.2	9.3 J	25.6
BERYLLIUM	0.73 J	2.1 J	1.7	0.59 J	5.6
CADMIUM	0.0077 UL	0.17 J	0.0069 U	0.052 B	1.1
CHROMIUM	16.2 J	29.4 J	20.9	11.9 J	25.4
COBALT	3.3 J	11.7 J	15.5	3.8 J	39.7
COPPER	9 J	21.8 J	14.7 J	5.8 J	28.4 J
LEAD	6.6 J	8.8 J	8.1	3.8	13.7
MERCURY	0.034	0.039 B	0.011	0.0074 U	0.033
MOLYBDENUM	0.31 J	2.4 J	0.34 B	0.43	0.2 B
NICKEL	11.4 J	22.1 J	38 J	8.8 J	55.2 J
SELENIUM	0.63 J	1.3 J	0.38 UL	0.45 U	0.45 UL
SILVER	0.081 UL	0.15 UL	0.073 U	0.086 U	0.13
THALLIUM	0.22 U	0.41 U	0.2 U	0.23 U	0.23 U
VANADIUM	27.4 J	31.2 J	36	16.7 J	32.3
ZINC	19.8 J	72.2 J	76.2 J	25.1 J	204 J

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-63	SD-64	SD-65	SD-66	SD-67
SAMPLE ID	SD-63-04	SD-64-04	SD-65-04	SD-66-04	SD-67-04
SAMPLE DATE	20081112	20081112	20081111	20081112	20081111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	46	37	39	46
BOTTOM DEPTH	50	50	41	43	50
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	79	41	NA	74	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	1400	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-68	SD-70	SD-71	SD-73	SD-75
SAMPLE ID	SD-68-04	SD-70-04	SD-71-04	SD-73-04	SD-75-04
SAMPLE DATE	20081112	20081111	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	43	34	42	42	42
BOTTOM DEPTH	47	38	46	46	46
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	330 U	420 UJ	430 UJ	660 U	320 U
2-METHYLNAPHTHALENE	330 U	420 UJ	430 UJ	660 U	320 U
ACENAPHTHENE	330 U	420 UJ	430 UJ	660 U	320 U
ACENAPHTHYLENE	330 U	420 UJ	430 UJ	660 U	320 U
ANTHRACENE	330 U	420 UJ	430 UJ	660 U	320 U
BAP EQUIVALENT-1/2 NON-DETECTS	330 U	420 U	430 U	660 U	320 U
BAP EQUIVALENT-POSITIVE RESULTS	330 U	420 U	430 U	660 U	320 U
BENZO(A)ANTHRACENE	330 U	420 UJ	430 UJ	660 U	320 U
BENZO(A)PYRENE	330 U	420 UJ	430 UJ	660 U	320 U
BENZO(B)FLUORANTHENE	330 U	420 UJ	430 UJ	660 U	320 U
BENZO(G,H,I)PERYLENE	330 U	420 UJ	430 UJ	660 U	320 U
BENZO(K)FLUORANTHENE	330 U	420 UJ	430 UJ	660 U	320 U
CHRYSENE	330 U	420 UJ	430 UJ	660 U	320 U
DIBENZO(A,H)ANTHRACENE	330 U	420 UJ	430 UJ	660 U	320 U
FLUORANTHENE	330 U	420 UJ	430 UJ	660 U	320 U
FLUORENE	330 U	420 UJ	430 UJ	660 U	320 U
INDENO(1,2,3-CD)PYRENE	330 U	420 UJ	430 UJ	660 U	320 U
NAPHTHALENE	330 U	420 UJ	430 UJ	660 U	320 U
PHENANTHRENE	330 U	420 UJ	430 UJ	660 U	320 U
PYRENE	330 U	420 UJ	430 UJ	660 U	320 U
TOTAL PAHS	0 U	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	21 U	21 U	22 U	33 U	20 U
AROCLOR-1221	21 U	21 U	22 U	33 U	20 U
AROCLOR-1232	21 U	21 U	22 U	33 U	20 U
AROCLOR-1242	21 U	21 U	22 U	33 U	20 U
AROCLOR-1248	21 U	21 U	22 U	33 U	20 U
AROCLOR-1254	21 U	21 U	22 U	33 U	20 U
AROCLOR-1260	21 UJ	21 U	22 U	33 U	20 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.13 UL	0.13 UJ	0.13 UJ	0.2 UL	0.12 UL
ARSENIC	2.7	1.6	3.5	5.2	0.55
BARIUM	15.6 J	8.1	16.7	20.6	13.5 J
BERYLLIUM	2.4 J	0.55	1.2	1.8	0.27 J
CADMIUM	0.013 B	0.039	0.0076 U	0.048	0.0072 U
CHROMIUM	15 J	11.8	15.6	27.5	6 J
COBALT	70.8 J	6.2	22.7	10.1	1.4 J
COPPER	12.4 J	8.5 J	12.6 J	14.8	6.9 J
LEAD	6.5	3.2	5.1	7.1	1.7
MERCURY	0.012	0.0079	0.014	0.028 B	0.0068 U
MOLYBDENUM	0.051 U	0.31 B	0.31 B	1.1	0.14 B
NICKEL	25.3 J	11.7 J	38.5 J	19	2.9 J
SELENIUM	0.78	0.42 UL	0.47 J	0.67 UL	0.52
SILVER	0.079 U	0.081 U	0.081 U	0.13 U	0.1 B
THALLIUM	0.22 U	0.22 U	0.22 U	0.35 U	0.21 U
VANADIUM	23.3 J	18.2	33.9	29.8 K	6.4 J
ZINC	71.7 J	47.5 J	59.3 J	47.1	15.1 J

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-68	SD-70	SD-71	SD-73	SD-75
SAMPLE ID	SD-68-04	SD-70-04	SD-71-04	SD-73-04	SD-75-04
SAMPLE DATE	20081112	20081111	20081111	20081111	20081112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	43	34	42	42	42
BOTTOM DEPTH	47	38	46	46	46
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	81	NA	NA	50	84
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	4400	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-76	SD-77	SD-77	SD-77	SD-79
SAMPLE ID	SD-76-04	SD-77-04	SD-77-04-AVG	SD-77-04-D	SD-79-02
SAMPLE DATE	20081111	20081110	20081110	20081110	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	44	44	44	31
BOTTOM DEPTH	50	52	52	52	35
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	470 U	500 U	510 U	520 U	850 U
2-METHYLNAPHTHALENE	470 U	500 U	510 U	520 U	850 U
ACENAPHTHENE	130 J	500 U	510 U	520 U	850 U
ACENAPHTHYLENE	470 U	500 U	510 U	520 U	850 U
ANTHRACENE	110 K	500 U	510 U	520 U	850 U
BAP EQUIVALENT-1/2 NON-DETECTS	543	500 U	510 U	520 U	850 U
BAP EQUIVALENT-POSITIVE RESULTS	0.14	500 U	510 U	520 U	850 U
BENZO(A)ANTHRACENE	470 U	500 U	510 U	520 U	850 U
BENZO(A)PYRENE	470 U	500 U	510 U	520 U	850 U
BENZO(B)FLUORANTHENE	470 U	500 U	510 U	520 U	850 U
BENZO(G,H,I)PERYLENE	470 U	500 U	510 U	520 U	850 U
BENZO(K)FLUORANTHENE	470 U	500 U	510 U	520 U	850 U
CHRYSENE	140 J	500 U	510 U	520 U	850 U
DIBENZO(A,H)ANTHRACENE	470 U	500 U	510 U	520 U	850 U
FLUORANTHENE	320 J	500 U	510 U	520 U	850 U
FLUORENE	180 J	500 U	510 U	520 U	850 U
INDENO(1,2,3-CD)PYRENE	470 U	500 U	510 U	520 U	850 U
NAPHTHALENE	470 U	500 U	510 U	520 U	850 U
PHENANTHRENE	700	500 U	510 U	520 U	850 U
PYRENE	440 J	500 U	510 U	520 U	850 U
TOTAL PAHS	2020	0 U	0 U	0 U	0 U
PCBS (UG/KG)					
AROCLOR-1016	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1221	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1232	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1242	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1248	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1254	24 U	25 U	25.5 U	26 U	42 U
AROCLOR-1260	81	25 U	25.5 U	26 U	42 U
TOTAL AROCLOR	81	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	23.9 L	0.15 UL	0.15 UL	0.15 UL	0.26 UL
ARSENIC	6.3	3.9	3.95	4	7.6
BARIUM	54.1	13.8	13.6	13.4	34.6
BERYLLIUM	1.3	1.2	1.2	1.2	1.6
CADMIUM	3.3	0.0086 U	0.0088 U	0.009 U	0.016 U
CHROMIUM	60.9	20.7	21.95	23.2	31.8
COBALT	7.5	6.9	6.8	6.7	14.8
COPPER	23.9	16.1	16.4	16.7	16.2
LEAD	61.9	6.7	6.8	6.9	13
MERCURY	0.15	0.011 B	0.0135 B	0.016 B	0.031
MOLYBDENUM	1.6	1.4	1.35	1.3	0.83 B
NICKEL	16.5	12.5	12.65	12.8	23.7
SELENIUM	0.47 UL	0.48 UL	0.49 UL	0.5 UL	0.86 U
SILVER	9.1	0.092 U	0.094 U	0.096 U	0.17 U
THALLIUM	0.24 U	0.25 U	0.255 U	0.26 U	0.45 U
VANADIUM	36.6 K	37.2 K	37.8 K	38.4 K	40
ZINC	107	27.5	27.35	27.2	69.7

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-76	SD-77	SD-77	SD-77	SD-79
SAMPLE ID	SD-76-04	SD-77-04	SD-77-04-AVG	SD-77-04-D	SD-79-02
SAMPLE DATE	20081111	20081110	20081110	20081110	20081114
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	46	44	44	44	31
BOTTOM DEPTH	50	52	52	52	35
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	70	66	65	64	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	10000	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-83	SD-85	SD-86	SD-87	SD-88
SAMPLE ID	SD-83-04	SD-85-04	SD-86-04	SD-87-04	SD-88-04
SAMPLE DATE	20100820	20100819	20100818	20100818	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
ACENAPHTHENE	0.47 U	1.6 U	8.2 J	16 J	6.3 U
ACENAPHTHYLENE	0.56 U	1.9 U	3.9 U	15 J	21 J
ANTHRACENE	0.9 J	1.6 U	4.8 J	37	13 J
BAP EQUIVALENT-1/2 NON-DETECTS	0.49 U	1.7 U	41.9	267	57.6
BAP EQUIVALENT-POSITIVE RESULTS	0.49 U	1.7 U	39.9	267	53.8
BENZO(A)ANTHRACENE	0.61 U	2.1 U	24 J	160	47 J
BENZO(A)PYRENE	0.49 U	1.7 U	25 J	160	30 J
BENZO(B)FLUORANTHENE	0.76 U	2.6 U	41	250	41 J
BENZO(G,H,I)PERYLENE	0.48 U	1.6 U	71	130	6.5 U
BENZO(K)FLUORANTHENE	0.98 U	3.3 U	6.9 U	3.3 U	13 U
CHRYSENE	0.58 U	2 U	26 J	160	37 J
DIBENZO(A,H)ANTHRACENE	0.54 U	1.8 U	3.8 U	54	7.3 U
FLUORANTHENE	3.1 J	1.8 U	33 J	240	79
FLUORENE	1.2 J	2.2 U	5.6 J	13 J	8.6 U
INDENO(1,2,3-CD)PYRENE	0.5 U	1.7 U	84	120	150
NAPHTHALENE	0.42 U	1.4 U	2.9 U	13 J	12 J
PHENANTHRENE	5	5.8 J	21 J	120	56 J
PYRENE	3.5 J	1.7 U	48	250	53 J
TOTAL PAHS	13.7	5.8	391.6	1738	539
PCBS (UG/KG)					
AROCLOR-1016	1.8 U	2 U	2.5 U	3.1 U	2.5 U
AROCLOR-1221	2.3 U	2.6 U	3.2 U	3.9 U	3.1 U
AROCLOR-1232	2.1 U	2.4 U	2.9 U	3.5 U	2.8 U
AROCLOR-1242	2 U	2.2 U	2.8 U	3.4 U	2.7 U
AROCLOR-1248	1.1 U	1.3 U	1.6 U	2 U	1.6 U
AROCLOR-1254	1.7 U	2 U	2.4 U	2.9 U	2.3 U
AROCLOR-1260	1.7 U	2 U	2.4 U	2.9 U	2.3 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.14 B	0.042 B	0.16 J	0.27 L	0.45 L
ARSENIC	2 L	2 L	3.8	5.1	35.9
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	0.72	0.94	1.6 J	2.1	2.5
CADMIUM	0.11 L	0.21 L	2.9	11.4	4.9 L
CHROMIUM	14.8	9.8	52.4 K	114	49.5
COBALT	NA	NA	NA	NA	NA
COPPER	12.2 L	7.1 L	18.6	33.1	31.7 L
LEAD	9.9	3.8	14	35.6 K	31
MERCURY	0.045	0.009 U	0.05	0.25	0.057
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	10.8 L	9.3 L	27.1	29.1	103 L
SELENIUM	0.45 L	0.45 L	0.75	1.1	2 L
SILVER	0.036 J	0.029 J	0.068 J	0.85	0.56
THALLIUM	0.11	0.064 J	0.16	0.26	20.3
VANADIUM	NA	NA	NA	NA	NA
ZINC	29.3 L	29.2 L	71.4	139	4370

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-83	SD-85	SD-86	SD-87	SD-88
SAMPLE ID	SD-83-04	SD-85-04	SD-86-04	SD-87-04	SD-88-04
SAMPLE DATE	20100820	20100819	20100818	20100818	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	9340	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	0.26 U	NA	0.38 U	0.31 U
CADMIUM	NA	0.00062 J	NA	0.035	0.012
CHROMIUM	NA	0.0057 J	NA	0.52	0.19
COPPER	NA	0.013 J	NA	0.26	0.11
LEAD	NA	0.0071 J	NA	0.2	0.065
NICKEL	NA	0.03 J	NA	0.13	0.052
SILVER	NA	0.00022 U	NA	0.0022 J	0.0019 J
ZINC	NA	0.24 J	NA	1.2	0.48

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-89	SD-90	SD-93	SD-94	SD-95
SAMPLE ID	SD-89-04	SD-90-04	SD-93-04	SD-94-04	SD-95-04
SAMPLE DATE	20100819	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
ACENAPHTHENE	3.3 U	10 J	8.2 J	2.7 U	16 J
ACENAPHTHYLENE	18 J	27 J	16 J	3.2 U	26 J
ANTHRACENE	29 J	26 J	25	2.7 U	36
BAP EQUIVALENT-1/2 NON-DETECTS	87.1	139	160	2.8 U	205
BAP EQUIVALENT-POSITIVE RESULTS	85.2	138	160	2.8 U	205
BENZO(A)ANTHRACENE	72	73	73	3.5 U	92
BENZO(A)PYRENE	60	63 J	77	2.8 U	95
BENZO(B)FLUORANTHENE	75	93 J	140	4.4 U	170
BENZO(G,H,I)PERYLENE	99	69 J	99	2.8 U	120
BENZO(K)FLUORANTHENE	49	5.9 UJ	4.5 U	5.7 U	7.1 U
CHRYSENE	58	82	100	3.3 U	120
DIBENZO(A,H)ANTHRACENE	3.8 U	51 J	52	3.1 U	71
FLUORANTHENE	110	160	140	3 U	170
FLUORENE	32 J	24 J	7.6 J	3.7 U	40
INDENO(1,2,3-CD)PYRENE	100	78 J	91	2.9 U	130
NAPHTHALENE	23 J	8.5 J	14 J	2.4 U	30 J
PHENANTHRENE	84	56	75	4.4 U	120
PYRENE	130	120	170	2.8 U	190
TOTAL PAHS	939	940.5	1087.8	0 U	1426
PCBS (UG/KG)					
AROCLOR-1016	2.6 U	2.2 U	2.1 U	2.1 U	2.6 U
AROCLOR-1221	3.3 U	2.8 U	2.6 U	2.7 U	3.4 U
AROCLOR-1232	2.9 U	2.5 U	2.4 U	2.4 U	3 U
AROCLOR-1242	2.8 U	2.4 U	2.2 U	2.3 U	2.9 U
AROCLOR-1248	1.6 U	1.4 U	1.3 U	1.3 U	1.7 U
AROCLOR-1254	2.4 U	2.1 U	2 U	2 U	2.5 U
AROCLOR-1260	15 J	2.1 U	2 U	2 U	12 J
TOTAL AROCLOR	15	0 U	0 U	0 U	12
METALS (MG/KG)					
ANTIMONY	0.3 L	0.25 J	0.33 L	0.2 J	0.52 L
ARSENIC	5.3	3.3	3.3	5.7	5.5
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	1.9	1.5	1.9	3.4	2.1
CADMIUM	4.2 L	1.1	4.5	0.32	9.3
CHROMIUM	102	44.7	113	27.7	194
COBALT	NA	NA	NA	NA	NA
COPPER	30.5 L	15.9	22.5	18.9	32.9
LEAD	33.9	13.7 J	29.8 K	5.7 J	43.6 K
MERCURY	0.12	0.099	0.16	0.0091 U	0.35
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	24.6 L	15.4	20.1	21.8	26.4
SELENIUM	1.2 L	0.89	0.92	0.97	1.3
SILVER	1.9	1.7	2.4	0.039 J	4.7
THALLIUM	0.16 K	0.12 J	0.11	0.077 J	0.18
VANADIUM	NA	NA	NA	NA	NA
ZINC	102	51.2	114	56.3	162

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-89	SD-90	SD-93	SD-94	SD-95
SAMPLE ID	SD-89-04	SD-90-04	SD-93-04	SD-94-04	SD-95-04
SAMPLE DATE	20100819	20100817	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	0.32 U	0.27 U	NA	NA	NA
CADMIUM	0.025	0.0068	NA	NA	NA
CHROMIUM	0.48	0.18	NA	NA	NA
COPPER	0.11	0.064	NA	NA	NA
LEAD	0.087	0.033	NA	NA	NA
NICKEL	0.042	0.024 J	NA	NA	NA
SILVER	0.0038	0.0055	NA	NA	NA
ZINC	0.7	0.42	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-04	SD-97-04	SD-98-04	SD-99-04	SD-100-04
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
ACENAPHTHENE	27	3.9 U	43	3.8 U	5.1 U
ACENAPHTHYLENE	29	4.7 U	58	4.5 U	6 U
ANTHRACENE	41	4 U	80	3.9 U	5.2 U
BAP EQUIVALENT-1/2 NON-DETECTS	144	4.1 U	319	4 U	5.3 U
BAP EQUIVALENT-POSITIVE RESULTS	143	4.1 U	319	4 U	5.3 U
BENZO(A)ANTHRACENE	81	5.1 U	190	5 U	6.6 U
BENZO(A)PYRENE	81	4.1 U	170	4 U	5.3 U
BENZO(B)FLUORANTHENE	150	6.4 U	310	6.2 U	8.3 U
BENZO(G,H,I)PERYLENE	81	4.1 U	170	3.9 U	5.2 U
BENZO(K)FLUORANTHENE	2.1 U	8.2 U	5.5 U	8 U	11 U
CHRYSENE	92	4.9 U	190	4.7 U	6.3 U
DIBENZO(A,H)ANTHRACENE	32	4.5 U	83	4.4 U	5.9 U
FLUORANTHENE	210	4.4 U	430	4.2 J	5.6 U
FLUORENE	24	5.4 U	42	5.2 U	6.9 U
INDENO(1,2,3-CD)PYRENE	73	4.2 U	160	4.1 U	5.4 U
NAPHTHALENE	35	3.5 U	68	3.4 U	4.5 U
PHENANTHRENE	94	6.5 U	180	6.7 J	8.4 U
PYRENE	210	4.1 U	370	4 U	5.3 U
TOTAL PAHS	1260	0 U	2544	10.9	0 U
PCBS (UG/KG)					
AROCLOR-1016	1.9 U	3 U	2.1 U	2.9 U	1.9 U
AROCLOR-1221	2.5 U	3.9 U	2.6 U	3.8 U	2.5 U
AROCLOR-1232	2.2 U	3.5 U	2.4 U	3.4 U	2.2 U
AROCLOR-1242	2.1 U	3.3 U	2.3 U	3.2 U	2.1 U
AROCLOR-1248	1.2 U	1.9 U	1.3 U	1.9 U	1.2 U
AROCLOR-1254	1.9 U	2.9 U	2 U	2.8 U	1.8 U
AROCLOR-1260	11 J	2.9 U	27	2.8 U	1.8 U
TOTAL AROCLOR	11	0 U	27	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.53 J	0.16 J	0.45 J	0.069 B	0.027 B
ARSENIC	8.2 L	6.5	4.2 L	5.2	2.2 L
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	2 L	1.9	1.3 L	1.7	0.51 L
CADMIUM	4.1 J	0.35	9 J	0.34 L	0.11 J
CHROMIUM	98.9 L	34.1	173 L	25.8	10.2 L
COBALT	NA	NA	NA	NA	NA
COPPER	52.3 L	17.5	25.3 L	17.6 L	5.8 L
LEAD	24	13.7 J	36.6	11.5	4.4
MERCURY	0.098	0.036 J	0.39	0.031 J	0.0087 U
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	24 L	22.6	20.1 L	20.3 L	7.4 L
SELENIUM	0.94 L	1.1	0.92 L	1 L	0.42 L
SILVER	2.3 L	0.076 J	2.9 L	0.061 J	0.021 J
THALLIUM	0.11 K	0.16 J	0.12 K	0.16 K	0.065 K
VANADIUM	NA	NA	NA	NA	NA
ZINC	89.1 L	76.7	124 L	70.9	26.4 L

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-96	SD-97	SD-98	SD-99	SD-100
SAMPLE ID	SD-96-04	SD-97-04	SD-98-04	SD-99-04	SD-100-04
SAMPLE DATE	20100819	20100817	20100819	20100819	20100819
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	NA	NA	NA	5.7	NA
CADMIUM	NA	NA	NA	0.0014 J	NA
CHROMIUM	NA	NA	NA	0.038	NA
COPPER	NA	NA	NA	0.042	NA
LEAD	NA	NA	NA	0.019	NA
NICKEL	NA	NA	NA	0.049	NA
SILVER	NA	NA	NA	0.00032 U	NA
ZINC	NA	NA	NA	0.49	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-102	SD-102	SD-104
SAMPLE ID	SD-101-04	SD-102-04	SD-102-04-AVG	SD-102-04-D	SD-104-04
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
SEMIVOLATILES (UG/KG)					
1-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA
ACENAPHTHENE	2.2 J	4.3 U	4.3 U	4.3 U	1.5 U
ACENAPHTHYLENE	2.4 J	7.9 J	5.225 J	5.1 U	1.7 U
ANTHRACENE	3.9 J	9 J	9.5 J	10 J	1.5 U
BAP EQUIVALENT-1/2 NON-DETECTS	9.8	40.0	30.5	21.0	1.5 U
BAP EQUIVALENT-POSITIVE RESULTS	9.2	37.4	28.0	18.3	1.5 U
BENZO(A)ANTHRACENE	7.2 J	18 J	21 J	24 J	1.9 U
BENZO(A)PYRENE	5 J	21 J	17.5 J	14 J	1.5 U
BENZO(B)FLUORANTHENE	8.5 J	46	31.5 J	17 J	2.4 U
BENZO(G,H,I)PERYLENE	22	84	43.125	4.5 U	1.5 U
BENZO(K)FLUORANTHENE	2.3 U	9 U	10.25 J	16 J	3.1 U
CHRYSENE	7.3 J	32 J	21.5 J	11 J	1.8 U
DIBENZO(A,H)ANTHRACENE	1.3 U	5 U	5 U	5 U	1.7 U
FLUORANTHENE	12	40 J	33.5 J	27 J	1.6 U
FLUORENE	3.2 J	8.4 J	5.675 J	5.9 U	2 U
INDENO(1,2,3-CD)PYRENE	26	100 J	51.15 J	4.6 UJ	1.6 U
NAPHTHALENE	4.7 J	21 J	16.5 J	12 J	1.3 U
PHENANTHRENE	10 J	38 J	30 J	22 J	2.4 J
PYRENE	14	41 J	34 J	27 J	1.5 U
TOTAL PAHS	128.4	466.3	330.425	180	2.4
PCBS (UG/KG)					
AROCLOR-1016	2.2 U	3.3 U	3.35 U	3.4 U	2.8 U
AROCLOR-1221	2.8 U	4.3 U	4.3 U	4.3 U	3.6 U
AROCLOR-1232	2.5 U	3.8 U	3.85 U	3.9 U	3.3 U
AROCLOR-1242	2.4 U	3.6 U	3.65 U	3.7 U	3.1 U
AROCLOR-1248	1.4 U	2.1 U	2.1 U	2.1 U	1.8 U
AROCLOR-1254	2.1 U	3.2 U	3.2 U	3.2 U	2.7 U
AROCLOR-1260	2.1 U	3.2 U	3.2 U	3.2 U	2.7 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U
METALS (MG/KG)					
ANTIMONY	0.16 J	0.45 J	0.37 L	0.29 L	0.074 B
ARSENIC	3.7	7.8	7.7	7.6	5.4
BARIUM	NA	NA	NA	NA	NA
BERYLLIUM	0.95	2 J	2 J	2	1.4 J
CADMIUM	1.9	10	8.35	6.7	0.32
CHROMIUM	56.7	209 K	183.5 K	158	27.7 K
COBALT	NA	NA	NA	NA	NA
COPPER	13.3	32.8	30.85	28.9	13.7
LEAD	19.8 K	56.8	50.1 K	43.4 K	11.6
MERCURY	0.055	0.18	0.195	0.21	0.032 J
MOLYBDENUM	NA	NA	NA	NA	NA
NICKEL	12.1	30.4	29.5	28.6	20
SELENIUM	0.64	1.4	1.35	1.3	0.89
SILVER	0.41	2.3 J	2 J	1.7	0.044 J
THALLIUM	0.094	0.24	0.225	0.21	0.15
VANADIUM	NA	NA	NA	NA	NA
ZINC	57.7	176	163.5	151	67.7

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-101	SD-102	SD-102	SD-102	SD-104
SAMPLE ID	SD-101-04	SD-102-04	SD-102-04-AVG	SD-102-04-D	SD-104-04
SAMPLE DATE	20100818	20100818	20100818	20100818	20100818
SAMPLE CODE	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SD	SD	SD	SD	SD
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB
TOP DEPTH	48	48	48	48	48
BOTTOM DEPTH	48	48	48	48	48
MISCELLANEOUS PARAMETERS (%)					
PERCENT SOLIDS	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)					
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA
AVS/SEM (UMOLES/G)					
ACID VOLATILE SULFIDE	0.33 J	NA	NA	NA	NA
CADMIUM	0.012	NA	NA	NA	NA
CHROMIUM	0.29	NA	NA	NA	NA
COPPER	0.053	NA	NA	NA	NA
LEAD	0.057	NA	NA	NA	NA
NICKEL	0.035	NA	NA	NA	NA
SILVER	0.001 J	NA	NA	NA	NA
ZINC	0.46	NA	NA	NA	NA

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	SD-105	SD-106
SAMPLE ID	SD-105-04	SD-106-04
SAMPLE DATE	20100818	20100818
SAMPLE CODE	NORMAL	NORMAL
MATRIX	SD	SD
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	SB	SB
TOP DEPTH	48	48
BOTTOM DEPTH	48	48
SEMIVOLATILES (UG/KG)		
1-METHYLNAPHTHALENE	NA	NA
2-METHYLNAPHTHALENE	NA	NA
ACENAPHTHENE	16 J	9 U
ACENAPHTHYLENE	26	11 U
ANTHRACENE	58	9.1 U
BAP EQUIVALENT-1/2 NON-DETECTS	290	9.3 U
BAP EQUIVALENT-POSITIVE RESULTS	290	9.3 U
BENZO(A)ANTHRACENE	160	12 U
BENZO(A)PYRENE	160	9.3 U
BENZO(B)FLUORANTHENE	290	15 U
BENZO(G,H,I)PERYLENE	170	9.3 U
BENZO(K)FLUORANTHENE	3.9 U	19 U
CHRYSENE	180	11 U
DIBENZO(A,H)ANTHRACENE	70	10 U
FLUORANTHENE	270	10 U
FLUORENE	30	12 U
INDENO(1,2,3-CD)PYRENE	150	9.6 U
NAPHTHALENE	83	8 U
PHENANTHRENE	190	15 U
PYRENE	370	9.4 U
TOTAL PAHS	2223	0 U
PCBS (UG/KG)		
AROCLOR-1016	3.6 U	3.4 U
AROCLOR-1221	4.6 U	4.4 U
AROCLOR-1232	4.1 U	3.9 U
AROCLOR-1242	3.9 U	3.7 U
AROCLOR-1248	2.3 U	2.2 U
AROCLOR-1254	3.4 U	3.3 U
AROCLOR-1260	120	3.3 U
TOTAL AROCLOR	120	0 U
METALS (MG/KG)		
ANTIMONY	0.96 J	0.075 B
ARSENIC	8.3	6.1 L
BARIUM	NA	NA
BERYLLIUM	1.9 J	1.6 L
CADMIUM	33.6	0.33 J
CHROMIUM	597 K	31.7 L
COBALT	NA	NA
COPPER	84.1	15.8 L
LEAD	163	15
MERCURY	1.5	0.034 J
MOLYBDENUM	NA	NA
NICKEL	47.5	24.8 L
SELENIUM	2.1	1.1 L
SILVER	8.9 J	0.062 J
THALLIUM	0.3	0.2 K
VANADIUM	NA	NA
ZINC	436	88 L

Table C-4
Summary of Analytical Results for Subsurface Sediment, >30-52"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	**SD-105**	**SD-106**
SAMPLE ID	**SD-105-04**	**SD-106-04**
SAMPLE DATE	**20100818**	**20100818**
SAMPLE CODE	**NORMAL**	**NORMAL**
MATRIX	**SD**	**SD**
SAMPLE TYPE	**NORMAL**	**NORMAL**
SUBMATRIX	**SB**	**SB**
TOP DEPTH	**48**	**48**
BOTTOM DEPTH	**48**	**48**
MISCELLANEOUS PARAMETERS (%)		
PERCENT SOLIDS	NA	NA
MISCELLANEOUS PARAMETERS (MG/KG)		
TOTAL ORGANIC CARBON	NA	NA
AVS/SEM (UMOLES/G)		
ACID VOLATILE SULFIDE	NA	NA
CADMIUM	NA	NA
CHROMIUM	NA	NA
COPPER	NA	NA
LEAD	NA	NA
NICKEL	NA	NA
SILVER	NA	NA
ZINC	NA	NA

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
R = Rejected
SB = Subsurface sediment
SD = Sediment
U = Non-detected

Table C-5
Summary of Analytical Results for Ex-Situ Pore Water, 0-6"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	PW-01	PW-02	PW-03	PW-04	PW-05	PW-06	PW-07
CORRESPONDING SEDIMENT LOCATION	SD-85	SD-87	SD-88	SD-89	SD-90	SD-99	SD-101
SAMPLE ID	PW-01_0-6	PW-02_0-6	PW-03_0-6	PW-04_0-6	PW-05_0-6	PW-06_0-6	PW-07_0-6
SAMPLE DATE	20100907	20100902	20100907	20100908	20100909	20100903	20100903
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW	PW	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	0	0	0	0	0	0	0
BOTTOM DEPTH	6	6	6	6	6	6	6
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)							
1,4-DIOXANE	NA	NA	0.36 UJ	0.36 UJ	0.36 UJ	NA	NA
ACENAPHTHENE	NA	NA	0.11 J	0.036 UJ	0.17 J	NA	NA
ACENAPHTHYLENE	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
ANTHRACENE	NA	NA	0.052 J	0.038 UJ	0.038 UJ	NA	NA
BENZO(A)ANTHRACENE	NA	NA	0.037 UJ	0.037 UJ	0.037 UJ	NA	NA
BENZO(A)PYRENE	NA	NA	0.034 UJ	0.034 UJ	0.034 UJ	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	0.14 UJ	0.14 UJ	0.14 UJ	NA	NA
CHRYSENE	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
FLUORANTHENE	NA	NA	0.91 J	0.04 UJ	0.97 J	NA	NA
FLUORENE	NA	NA	0.054 UJ	0.13 J	0.054 UJ	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	0.05 UJ	0.05 UJ	0.05 UJ	NA	NA
NAPHTHALENE	NA	NA	0.035 UJ	0.074 J	0.035 UJ	NA	NA
PHENANTHRENE	NA	NA	0.55 J	0.44 J	0.47 J	NA	NA
PYRENE	NA	NA	0.16 J	0.039 UJ	0.27 J	NA	NA
PCBS (UG/L)							
AROCLOR-1016	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1221	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1232	NA	NA	0.12 UJ	0.12 UJ	0.12 UJ	NA	NA
AROCLOR-1242	NA	NA	0.074 UJ	0.074 UJ	0.074 UJ	NA	NA
AROCLOR-1248	NA	NA	0.091 UJ	0.091 UJ	0.091 UJ	NA	NA
AROCLOR-1254	NA	NA	0.092 UJ	0.092 UJ	0.092 UJ	NA	NA
AROCLOR-1260	NA	NA	0.49 J	0.18 J	0.61 J	NA	NA
DISSOLVED METALS (UG/L)							
ANTIMONY	0.74 B	4.6	2.2	0.47 B	1.9 J	2	0.29 B
ARSENIC	1.2 K	10.9	23.4	6.2	12.6	14.8	6.7
BERYLLIUM	0.057 B	0.069 B	0.037 U	0.037 U	0.06 B	0.048 B	0.037 U
CADMIUM	10	0.13 J	0.23 J	0.13 J	0.11 U	0.11 U	0.11 U
CHROMIUM	6.3	13.7	11.9	10	13	8.5	10.3
COPPER	4.7	1.3 J	1.2 J	0.98 J	1.2 J	2.2	1.1 J
LEAD	1.2 J	1.6 J	0.54 J	0.1 B	1 J	0.7 J	0.21 B
MERCURY	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL
NICKEL	6.8	1.2	0.97 B	1.7	1	1.1	0.7 B
SELENIUM	2.6 B	4.8 J	4.9 J	5.1 J	4.6 J	4.4 J	4.9 J
SILVER	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
THALLIUM	0.15 B	0.033 B	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
ZINC	38.9	3.9 J	4.5 J	4.7 J	3.8 J	6.5	2.4 J
MISCELLANEOUS PARAMETERS (MG/L)							
DISSOLVED ORGANIC CARBON	12.5	9.6	8.3	12.2	8.3	6.2	14.3
HARDNESS	540	715	619	724	579	643	669
MISCELLANEOUS PARAMETERS (S.U.)							
PH	7.5	8.1	7.8	7.3	7.8	8.1	7.8

Definitions:

B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table C-6
Summary of Analytical Results for Ex-Situ Pore Water, >6-18"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	PW-01	PW-02	PW-03	PW-04	PW-05	PW-06	PW-07
CORRESPONDING SEDIMENT LOCATION	SD-85	SD-87	SD-88	SD-89	SD-90	SD-99	SD-101
SAMPLE ID	PW-01_6-18	PW-02_6-18	PW-03_6-18	PW-04_6-18	PW-05_6-18	PW-06_6-18	PW-07_6-18
SAMPLE DATE	20100907	20100902	20100907	20100908	20100909	20100903	20100903
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW	PW	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	6	6	6	6	6	6	6
BOTTOM DEPTH	18	18	18	18	18	18	18
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)							
1,4-DIOXANE	NA	NA	0.36 UJ	0.36 UJ	0.36 UJ	NA	NA
ACENAPHTHENE	NA	NA	0.036 UJ	0.11 J	0.44 J	NA	NA
ACENAPHTHYLENE	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
ANTHRACENE	NA	NA	0.038 UJ	0.038 UJ	0.17 J	NA	NA
BENZO(A)ANTHRACENE	NA	NA	0.037 UJ	0.037 UJ	0.48 J	NA	NA
BENZO(A)PYRENE	NA	NA	0.034 UJ	0.034 UJ	0.23 J	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	0.039 UJ	0.039 UJ	2.6 J	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	0.038 UJ	0.038 UJ	0.82 J	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	0.14 UJ	0.14 UJ	0.98 J	NA	NA
CHRYSENE	NA	NA	0.035 UJ	0.035 UJ	0.39 J	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
FLUORANTHENE	NA	NA	0.85 J	0.04 UJ	2.1 J	NA	NA
FLUORENE	NA	NA	0.11 J	0.16 J	0.24 J	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	0.05 UJ	0.05 UJ	0.98 J	NA	NA
NAPHTHALENE	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
PHENANTHRENE	NA	NA	0.34 J	0.61 J	0.8 J	NA	NA
PYRENE	NA	NA	0.039 UJ	0.039 UJ	1.4 J	NA	NA
PCBS (UG/L)							
AROCLOR-1016	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1221	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1232	NA	NA	0.12 UJ	0.12 UJ	0.12 UJ	NA	NA
AROCLOR-1242	NA	NA	0.074 UJ	0.074 UJ	0.074 UJ	NA	NA
AROCLOR-1248	NA	NA	0.091 UJ	0.091 UJ	0.091 UJ	NA	NA
AROCLOR-1254	NA	NA	0.092 UJ	0.092 UJ	0.092 UJ	NA	NA
AROCLOR-1260	NA	NA	0.13 J	0.1 J	0.55 J	NA	NA
DISSOLVED METALS (UG/L)							
ANTIMONY	3.6	13.1	1.2 B	0.41 B	3.7	2.3	0.34 B
ARSENIC	2.7	11.3	10.2	5.3	9.5	18.8	3.4
BERYLLIUM	0.04 B	0.044 B	0.037 U	0.037 U	0.049 B	0.071 B	0.037 U
CADMIUM	23	0.14 J	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
CHROMIUM	16.1	14.8	13.7	13.6	12.5	7.8	13.4
COPPER	8.3	1.7 J	1.3 J	0.75 J	0.78 J	2	0.81 J
LEAD	4.5	0.63 J	0.26 J	0.098 B	0.65 J	0.48 J	0.27 J
MERCURY	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL
NICKEL	2.9	2.3	1	1.3	0.96 B	1.5	0.59 B
SELENIUM	2.2 B	4.9 J	5.4 J	5.4 J	4.4 J	5.2 J	5.8 J
SILVER	0.078 B	0.036 U	0.036 U	0.036 U	0.055 B	0.036 U	0.036 U
THALLIUM	0.081 B	0.018 B	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
ZINC	47.5	4.7 J	3.7 J	2.6 J	3.5 J	4.3 J	1.7 J
MISCELLANEOUS PARAMETERS (MG/L)							
DISSOLVED ORGANIC CARBON	13.1	8.6	10.5	15.8	9.4	8.5	9.7
HARDNESS	328	788	627	767	524	610	686
MISCELLANEOUS PARAMETERS (S.U.)							
PH	7.8	8.1	7.4	7.1	7.6	7.9	7.7

Definitions:

B = Blank contamination
J = Estimated
L = Biased low
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected

Table C-7
Summary of Analytical Results for Ex-Situ Pore Water, >18-30"
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	PW-01	PW-02	PW-03	PW-04	PW-05	PW-06	PW-07
CORRESPONDING SEDIMENT LOCATION	SD-85	SD-87	SD-88	SD-89	SD-90	SD-99	SD-101
SAMPLE ID	PW-01_18-30	PW-02_18-30	PW-03_18-30	PW-04_18-30	PW-05_18-30	PW-06_18-30	PW-07_18-30
SAMPLE DATE	20100907	20100902	20100907	20100908	20100909	20100903	20100903
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW	PW	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	18	18	18	18	18	18	18
BOTTOM DEPTH	30	30	30	30	30	30	30
POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)							
1,4-DIOXANE	NA	NA	0.36 UJ	0.36 UJ	0.36 UJ	NA	NA
ACENAPHTHENE	NA	NA	0.12 J	0.11 J	0.093 J	NA	NA
ACENAPHTHYLENE	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
ANTHRACENE	NA	NA	0.041 J	0.038 J	0.038 UJ	NA	NA
BENZO(A)ANTHRACENE	NA	NA	0.037 UJ	0.037 UJ	0.037 UJ	NA	NA
BENZO(A)PYRENE	NA	NA	0.034 UJ	0.034 UJ	0.034 UJ	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	0.038 UJ	0.038 UJ	0.038 UJ	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	0.14 UJ	0.14 UJ	0.14 UJ	NA	NA
CHRYSENE	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	0.039 UJ	0.039 UJ	0.039 UJ	NA	NA
FLUORANTHENE	NA	NA	0.84 J	0.91 J	0.04 UJ	NA	NA
FLUORENE	NA	NA	0.12 J	0.054 UJ	0.054 UJ	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	0.05 UJ	0.05 UJ	0.05 UJ	NA	NA
NAPHTHALENE	NA	NA	0.035 UJ	0.035 UJ	0.035 UJ	NA	NA
PHENANTHRENE	NA	NA	0.39 J	0.43 J	0.58 J	NA	NA
PYRENE	NA	NA	0.1 J	0.2 J	0.039 UJ	NA	NA
PCBS (UG/L)							
AROCLOR-1016	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1221	NA	NA	0.1 UJ	0.1 UJ	0.1 UJ	NA	NA
AROCLOR-1232	NA	NA	0.12 UJ	0.12 UJ	0.12 UJ	NA	NA
AROCLOR-1242	NA	NA	0.074 UJ	0.074 UJ	0.074 UJ	NA	NA
AROCLOR-1248	NA	NA	0.091 UJ	0.091 UJ	0.091 UJ	NA	NA
AROCLOR-1254	NA	NA	0.092 UJ	0.092 UJ	0.092 UJ	NA	NA
AROCLOR-1260	NA	NA	0.054 UJ	0.054 UJ	0.054 UJ	NA	NA
DISSOLVED METALS (UG/L)							
ANTIMONY	7.6	5.8	0.9 B	0.84 B	1 B	0.86 B	1.5 B
ARSENIC	7.4	5	9.6	6.3	9.8	12.1	6.4
BERYLLIUM	0.037 U	0.037 U	0.037 B	0.043 B	0.037 U	0.046 B	0.049 B
CADMIUM	1.4	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
CHROMIUM	18.7	17.5	9.8	15.5	9.3	14.6	13.6
COPPER	1.4 J	0.77 J	4.8	0.82 J	2.7	2.1	1.6 J
LEAD	2.2	0.25 J	0.35 J	0.24 B	0.56 J	0.33 J	0.19 B
MERCURY	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL	0.038 UL
NICKEL	2.2	2.2	1.8	1.4	1.3	4.4	1.1
SELENIUM	1.3 B	6.5 J	5.1 J	6 J	4.3 J	5 J	5.7 J
SILVER	0.041 B	0.036 U	0.036 U	0.036 U	0.071 B	0.036 U	0.036 U
THALLIUM	0.043 B	0.019 B	0.015 U	0.015 U	0.015 U	0.015 U	0.039 B
ZINC	8.7	1.9 J	21.4	3.2 J	4.3 J	2.9 J	2.4 J
MISCELLANEOUS PARAMETERS (MG/L)							
DISSOLVED ORGANIC CARBON	10.7	11.4	14.9	20.9	11.4	11.2	11.5
HARDNESS	260	880	578	747	441	617	724
MISCELLANEOUS PARAMETERS (S.U.)							
PH	7.7	7.8	7.2	7.1	7.2	7.7	7.7

Definitions:

B = Blank contamination
J = Estimated
L = Biased low
NA = Not Applicable or Not Available
PW = Pore water
U = Non-detected
U = Non-detected

Table C-8
Summary of Analytical Results for In-Situ Pore Water, Cow Pen Creek
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	CPC-SW/PW-1	CPC-SW/PW-2	CPC-SW/PW-3
SAMPLE ID	CPC-PW-VOC-1	CPC-PW-VOC-2	CPC-PW-VOC-3
SAMPLE DATE	20100902	20100929	20100929
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999
VOLATILES (UG/L)			
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.58 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.55 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.45 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.7 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.38 U	0.25 J
1,1-DICHLOROETHENE	0.19 U	0.48 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.32 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.42 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	1.1 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.015 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.38 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.3 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	1.7 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.6 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.32 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.55 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.45 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.35 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.4 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.32 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.32 U	0.13 U
2-BUTANONE	3.3 J	120 J	3 J
2-CHLOROETHYL VINYL ETHER	0.99 U	2.5 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.28 U	0.11 U
2-HEXANONE	0.41 U	1 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.45 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.3 U	0.12 U

Table C-8
Summary of Analytical Results for In-Situ Pore Water, Cow Pen Creek
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	CPC-SW/PW-1	CPC-SW/PW-2	CPC-SW/PW-3
SAMPLE ID	CPC-PW-VOC-1	CPC-PW-VOC-2	CPC-PW-VOC-3
SAMPLE DATE	20100902	20100929	20100929
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999
4-METHYL-2-PENTANONE	0.32 U	0.8 U	0.32 U
ACETONE	26 J	140 B	17 B
BENZENE	0.13 U	0.32 U	0.13 U
BROMOBENZENE	0.13 U	0.32 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.72 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.38 U	0.15 U
BROMOFORM	0.64 U	1.6 U	0.64 U
BROMOMETHANE	0.41 U	1 U	0.41 U
CARBON DISULFIDE	0.95 J	0.32 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.32 U	0.13 U
CHLOROBENZENE	0.15 U	0.38 UL	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.45 U	0.18 U
CHLOROETHANE	0.29 U	0.72 U	0.29 U
CHLOROFORM	0.16 U	0.4 U	0.16 U
CHLOROMETHANE	0.3 U	0.75 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.42 U	0.24 J
CIS-1,3-DICHLOROPROPENE	0.14 U	0.35 U	0.14 U
DIBROMOMETHANE	0.28 U	0.7 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.78 U	0.31 U
DIISOPROPYL ETHER	1.5 U	3.8 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.28 U	0.11 U
ETHYLBENZENE	0.17 U	0.42 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.75 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.32 U	0.13 U
M+P-XYLENES	0.24 U	0.6 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.42 UJ	0.17 U
METHYLENE CHLORIDE	0.33 U	0.82 U	0.33 U
NAPHTHALENE	0.24 U	0.6 U	0.24 U

Table C-8
Summary of Analytical Results for In-Situ Pore Water, Cow Pen Creek
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	CPC-SW/PW-1	CPC-SW/PW-2	CPC-SW/PW-3
SAMPLE ID	CPC-PW-VOC-1	CPC-PW-VOC-2	CPC-PW-VOC-3
SAMPLE DATE	20100902	20100929	20100929
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999
N-BUTYLBENZENE	0.12 U	0.3 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.35 U	0.14 U
O-XYLENE	0.14 U	0.35 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.32 U	0.13 U
STYRENE	0.11 U	0.28 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.17 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.32 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	9.8 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.72 U	0.29 U
TOLUENE	0.13 U	0.32 U	0.13 U
TOTAL XYLENES	0.28 U	0.7 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.48 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.48 U	0.19 U
TRICHLOROETHENE	0.17 U	0.42 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.52 U	0.21 U
VINYL ACETATE	0.19 U	0.48 UR	0.19 UR
VINYL CHLORIDE	0.22 U	0.55 U	0.55 J

Definitions:
B = Blank contamination
J = Estimated
L = Biased low
NA = Not Applicable or Not Available
PW = Pore water
R = Rejected
U = Non-detected

Table C-9
Summary of Analytical Results for In-Situ Pore Water, Dark Head Cove
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	DHC-SW/PW-1	DHC-SW/PW-2	DHC-SW/PW-3	DHC-SW/PW-4	DHC-SW/PW-5
SAMPLE ID	DHC-PW-VOC-1	DHC-PW-VOC-2	DHC-PW-VOC-3	DHC-PW-VOC-4	DHC-PW-VOC-5
SAMPLE DATE	20100901	20100901	20100902	20100902	20100902
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)					
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	1.6 J	7.5	4 J	2 J	6.1
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.56 J	0.32 U	0.32 U	0.32 U
ACETONE	4 J	27 J	15 J	11 J	15 J
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.53 J	0.89 J	0.4 J	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U

Table C-9
Summary of Analytical Results for In-Situ Pore Water, Dark Head Cove
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	DHC-SW/PW-1	DHC-SW/PW-2	DHC-SW/PW-3	DHC-SW/PW-4	DHC-SW/PW-5
SAMPLE ID	DHC-PW-VOC-1	DHC-PW-VOC-2	DHC-PW-VOC-3	DHC-PW-VOC-4	DHC-PW-VOC-5
SAMPLE DATE	20100901	20100901	20100902	20100902	20100902
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	PW	PW	PW	PW	PW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.29 J	0.17 U	0.17 U	0.34 J	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	1.7	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.43 J	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.68 J	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.88 J	0.17 U	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Definitions:

J = Estimated
NA = Not Applicable or Not Available
PW = Pore water
R = Rejected
U = Non-detected

Table C-10
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	CPC-SW/PW-1	CPC-SW/PW-2	CPC-SW/PW-3	DHC-SW/PW-1	DHC-SW/PW-2	DHC-SW/PW-3	DHC-SW/PW-4
SAMPLE ID	CPC-SW-VOC-1	CPC-SW-VOC-2	CPC-SW-VOC-3	DHC-SW-VOC-1	DHC-SW-VOC-2	DHC-SW-VOC-3	DHC-SW-VOC-4
SAMPLE DATE	20100902	20100929	20100929	20100901	20100901	20100902	20100902
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SW	SW	SW	SW	SW	SW	SW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999
METALS (UG/L)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.65 J	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	1.1 U	6.4 B	8.6 B	2.3 J	4.8 J	11 J	12 J
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Table C-10
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	CPC-SW/PW-1	CPC-SW/PW-2	CPC-SW/PW-3	DHC-SW/PW-1	DHC-SW/PW-2	DHC-SW/PW-3	DHC-SW/PW-4
SAMPLE ID	CPC-SW-VOC-1	CPC-SW-VOC-2	CPC-SW-VOC-3	DHC-SW-VOC-1	DHC-SW-VOC-2	DHC-SW-VOC-3	DHC-SW-VOC-4
SAMPLE DATE	20100902	20100929	20100929	20100901	20100901	20100902	20100902
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SW	SW	SW	SW	SW	SW	SW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 UR	0.19 UR	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

Table C-10
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	DHC-SW/PW-5	DHC-SW-6	DHC-SW-7		MRC-SW/SD-1	MSA-SW-1
SAMPLE ID	DHC-SW-VOC-5	DHC-SW-VOC-6	DHC-SW-VOC-7	DHC-SW-VOC-7-D	MRC-SW-1	MSA-SW-1
SAMPLE DATE	20100902	20100903	20100903	20100903	20101014	20101014
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
MATRIX	SW	SW	SW	SW	SW	SW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	2	1 J
ARSENIC	NA	NA	NA	NA	2.6 J	1.2 J
BARIUM	NA	NA	NA	NA	28.3	40.7
BERYLLIUM	NA	NA	NA	NA	0.2 U	0.2 U
CADMIUM	NA	NA	NA	NA	0.13 UL	0.13 UL
CHROMIUM	NA	NA	NA	NA	6.7	4
COBALT	NA	NA	NA	NA	0.4 J	0.55 J
COPPER	NA	NA	NA	NA	23.2	8.8
IRON	NA	NA	NA	NA	603	676
LEAD	NA	NA	NA	NA	4	3
MANGANESE	NA	NA	NA	NA	23.6	41
MERCURY	NA	NA	NA	NA	0.12 U	0.12 U
MOLYBDENUM	NA	NA	NA	NA	2.8	2.5
NICKEL	NA	NA	NA	NA	2.4 K	2.8 K
SELENIUM	NA	NA	NA	NA	1.2 U	1.2 U
SILVER	NA	NA	NA	NA	0.08 U	0.08 U
THALLIUM	NA	NA	NA	NA	0.19 B	0.18 B
VANADIUM	NA	NA	NA	NA	3.7 J	3.1 J
ZINC	NA	NA	NA	NA	47.8	42.6
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	NA	NA
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	NA	NA
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	NA	NA
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	NA	NA
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	NA	NA
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NA	NA
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	NA	NA
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	NA	NA
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	NA	NA
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	NA	NA
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	NA	NA
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	NA	NA
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	NA	NA
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	NA	NA
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	NA	NA
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	NA	NA
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	NA	NA
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	NA	NA
ACETONE	5.8 J	1.1 U	5.1 J	7.8 J	NA	NA
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	NA	NA
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	NA	NA
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	NA	NA
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	NA	NA
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	NA	NA
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	NA	NA
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	NA	NA
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	NA	NA
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	NA	NA
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	NA	NA
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	NA	NA
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	NA	NA
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	NA	NA
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	NA	NA

Table C-10
Detected Concentrations Table for Surface Water
Lockheed Martin, Middle River Complex
Middle River, Maryland

LOCATION	DHC-SW/PW-5	DHC-SW-6	DHC-SW-7		MRC-SW/SD-1	MSA-SW-1
SAMPLE ID	DHC-SW-VOC-5	DHC-SW-VOC-6	DHC-SW-VOC-7	DHC-SW-VOC-7-D	MRC-SW-1	MSA-SW-1
SAMPLE DATE	20100902	20100903	20100903	20100903	20101014	20101014
SAMPLE CODE	NORMAL	NORMAL	ORIG	DUP	NORMAL	NORMAL
MATRIX	SW	SW	SW	SW	SW	SW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	NA	NA
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	NA	NA
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	NA	NA
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	NA	NA
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	NA	NA
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	NA	NA
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	NA	NA
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	NA	NA
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	NA	NA
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	NA	NA
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U	NA	NA
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	NA	NA
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	NA	NA
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	NA	NA

Definitions:
B = Blank contamination
J = Estimated
K = Biased high
L = Biased low
NA = Not Applicable or Not Available
R = Rejected
SW = Surface water
U = Non-detected

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE: NOVEMBER 16, 2010**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – SELECT TOTAL METALS**
MIDDLE RIVER CENTER
SAMPLE DELIVERY GROUP (SDG) – A0J150598

SAMPLES: 2/Aqueous/

MRC-SW-1 MSA-SW-1

1/Sediment/

MRC-SED-1

Overview

The sample set for Middle River Center, SDG A0J150598, consists of one (1) sediment and two (2) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for select total metals. The samples were collected by Tetra Tech on October 14, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7471A.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, MS tuning, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike / matrix spike duplicate recoveries, internal standards, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for cadmium were < 90% quality control limit and copper, iron, manganese, nickel, silver and thallium were > 110% quality control limit affecting samples MRC-SW-1 and MSA-SW-1. The nondetected results reported for cadmium were qualified as biased low, "UL". No validation actions were required for copper, iron, manganese, nickel, silver and thallium as all sample results were either > 2X CRDL, nondetects or were qualified as a result of blank contamination.

- The CRDL percent recoveries for iron and silver were > 110% quality control limit and selenium was < 90% quality control limit affecting sample MRC-SED-1. The positive results < 2X CRDL for selenium and silver were qualified as estimated, "J". No validation actions were required for iron as the sample result was > 2X CRDL.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Affecting samples MRC-SW-1 and MSA-SW-1:

Analyte	Maximum Concentration	Action Level
Antimony	0.045 ug/L	0.225 ug/L
Barium[(1)]	0.84 ug/L	4.2 ug/L
Beryllium	0.038 ug/L	0.19 ug/L
Cadmium	0.042 ug/L	0.21 ug/L
Cobalt	0.027 ug/L	0.135 ug/L
Copper[(1)]	0.52 ug/L	2.6 ug/L
Iron	10 ug/L	50 ug/L
Lead	0.038 ug/L	0.19 ug/L
Silver	0.032 ug/L	0.16 ug/L
Thallium	0.6 ug/L	3.0 ug/L
Zinc[(1)]	5.8 ug/L	29 ug/L

Affecting sample MRC-SED-1:

Analyte	Maximum Concentration	Action Level
Antimony	0.052 ug/L	0.026 mg/kg
Barium[(1)]	0.091 mg/kg	0.455 mg/kg
Beryllium	0.029 ug/L	0.0145 mg/kg
Cadmium	0.034 ug/L	0.017 mg/kg
Chromium[(1)]	0.062 mg/kg	0.31 mg/kg
Cobalt	0.034 ug/L	0.017 mg/kg
Copper[(1)]	0.18 mg/kg	0.9 mg/kg
Lead	0.11 ug/L	0.055 mg/kg
Iron[(1)]	3.9 mg/kg	19.5 mg/kg
Manganese[(1)]	1.3 mg/kg	6.5 mg/kg
Nickel[(1)]	0.032 mg/kg	0.16 mg/kg
Silver	0.035 ug/L	0.0175 mg/kg
Thallium	0.27 ug/L	0.135 mg/kg

[(1)] Maximum concentration present in a preparation blank.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for thallium were qualified "B" as a result of laboratory blank contamination.

- The interfering analyte iron was present in sample MRC-SED-1 at a concentration comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, silver and vanadium were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for cadmium and silver in the affected sample. The positive results reported for cadmium and silver were qualified as estimated, "J", as a result of conflicting noncompliances.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

The CRDL percent recovery for mercury was > 120% quality control limit affecting samples MRC-SW-1 and MSA-SW-1. No validation actions were required as all results were nondetects.

Executive Summary

Laboratory Performance: Several CRDL percent recoveries were outside the 90-110% quality control limits. Several contaminants were present in the method / preparation blanks.

Other Factors Affecting Data Quality: The interfering analyte iron was present in sample MRC-SED-1. Positive results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	MRC-SW-1	MSA-SW-1
SDG: A0J150598	LAB_ID	A0J150598001	A0J150598002
FRACTION: M	SAMP_DATE	10/14/2010	10/14/2010
MEDIA: WATER	QC_TYPE	NM	NM
	UNITS	UG/L	UG/L
	PCT_SOLIDS	0.0	0.0
	DUP_OF		

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	2			1	J	P
ARSENIC	2.6	J	P	1.2	J	P
BARIUM	28.3			40.7		
BERYLLIUM	0.2	U		0.2	U	
CADMIUM	0.13	UL	C	0.13	UL	C
CHROMIUM	6.7			4		
COBALT	0.4	J	P	0.55	J	P
COPPER	23.2			8.8		
IRON	603			676		
LEAD	4			3		
MANGANESE	23.6			41		
MERCURY	0.12	U		0.12	U	
MOLYBDENUM	2.8			2.5		
NICKEL	2.4	K	C	2.8	K	C
SELENIUM	1.2	U		1.2	U	
SILVER	0.08	U		0.08	U	
THALLIUM	0.19	B	A	0.18	B	A
VANADIUM	3.7	J	P	3.1	J	P
ZINC	47.8			42.6		

PROJ_NO: 02903	NSAMPLE	MRC-SED-1
SDG: A0J150598	LAB_ID	A0J150598003
FRACTION: M	SAMP_DATE	10/14/2010
MEDIA: SEDIMENT	QC_TYPE	NM
	UNITS	MG/KG
	PCT_SOLIDS	80.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
ANTIMONY	1.9		
ARSENIC	2.9		
BARIUM	57.5		
BERYLLIUM	0.26		
CADMIUM	0.12	J	KP
CHROMIUM	122		
COBALT	4.8		
COPPER	255		
IRON	33700		
LEAD	5.8		
MANGANESE	518		
MERCURY	0.034	J	P
MOLYBDENUM	4		
NICKEL	32.3		
SELENIUM	0.26	J	CP
SILVER	0.057	J	CKP
THALLIUM	0.023	B	A
VANADIUM	13.4		
ZINC	53.4		

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: MRC-SW-1

TOTAL Metals

Lot-Sample #...: A0J150598-001 Matrix.....: WG
Date Sampled...: 10/14/10 10:15 Date Received..: 10/15/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0291016						
Silver	ND	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AQ
Arsenic	2.6 B	5.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AC
Barium	28.3 J	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AD
Beryllium	ND	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AE
Cadmium	ND	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AF
Cobalt	0.40 B	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AG
Chromium	6.7	2.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AV
Copper	23.2 J	2.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AH
Iron	603	50.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AJ
Manganese	23.6	1.0 Dilution Factor: 1 Instrument ID..: I8	ug/L	SW846 6020 Analysis Time..: 18:07	10/18-10/19/10 Analyst ID.....: 000079	L8K1C1AL

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MRC-SW-1

TOTAL Metals

Lot-Sample #...: A0J150598-001 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	2.8	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AM
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	2.4	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AN
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	4.0	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AK
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	2.0	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AA
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	ND	5.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AP
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Thallium	0.19 B	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AR
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	3.7 B	20.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AT
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	47.8 J	20.0	ug/L	SW846 6020	10/18-10/19/10	L8K1C1AU
		Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	ND	0.20	ug/L	SW846 7470A	10/18/10	L8K1C1AW
		Dilution Factor: 1		Analysis Time..: 17:43	Analyst ID.....: 001576	
		Instrument ID..: H4				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRQ-SW-1 SA

TOTAL Metals

Lot-Sample #...: A0J150598-002 Matrix.....: WG
Date Sampled...: 10/14/10 10:11 Date Received..: 10/15/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0291016						
Silver	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AQ
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Arsenic	**1.2 B**	**5.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AC**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Barium	**40.7 J**	**1.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AD**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Beryllium	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AE
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Cadmium	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AF
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Cobalt	**0.55 B**	**1.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AG**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Chromium	**4.0**	**2.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AV**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Copper	**8.8 J**	**2.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AH**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Iron	**676**	**50.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AJ**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				
Manganese	**41.0**	**1.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8K1Q1AL**
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
		Instrument ID..: I8				

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Tetra Tech NUS, Inc

Client Sample ID: MBC-SW-1

TOTAL Metals

Lot-Sample #...: A0J150598-002 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	2.5	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AM
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Nickel	2.8	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AN
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Lead	3.0	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AK
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Antimony	1.0 B	2.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AA
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Selenium	ND	5.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AP
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Thallium	0.18 B	1.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AR
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Vanadium	3.1 B	20.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AT
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Zinc	42.6 J	20.0	ug/L	SW846 6020	10/18-10/19/10	L8K1Q1AU
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 000079	
Mercury	ND	0.20	ug/L	SW846 7470A	10/18/10	L8K1Q1AW
		Dilution Factor: 1		Analysis Time..: 17:48	Analyst ID.....: 001576	

Instrument ID..: I8 (Molybdenum)
Instrument ID..: I8 (Nickel)
Instrument ID..: I8 (Lead)
Instrument ID..: I8 (Antimony)
Instrument ID..: I8 (Selenium)
Instrument ID..: I8 (Thallium)
Instrument ID..: I8 (Vanadium)
Instrument ID..: I8 (Zinc)
Instrument ID..: H4 (Mercury)

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MRC-SED-1

TOTAL Metals

Lot-Sample #...: A0J150598-003
Date Sampled...: 10/14/10 13:00 Date Received..: 10/15/10
% Moisture.....: 20
Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0292022						
Silver	0.057 B	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AR
Arsenic	2.9	0.63 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AD
Barium	57.5 J	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AE
Beryllium	0.26	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AF
Cadmium	0.12 B	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AG
Cobalt	4.8	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AH
Chromium	122 J	0.25 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AW
Copper	255 J	0.25 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 15:29	10/19-10/21/10 Analyst ID.....: 000079	L8K1R1AJ
Iron	33700 J	6.3 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AK
Manganese	518 J	0.13 Dilution Factor: 1 Instrument ID..: I8	mg/kg	SW846 6020 Analysis Time..: 21:57	10/19-10/20/10 Analyst ID.....: 000079	L8K1R1AM

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MRC-SED-1

TOTAL Metals

Lot-Sample #...: A0J150598-003 Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	4.0	0.25	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AN
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Nickel	32.3 J	0.13	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AP
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Lead	5.8	0.13	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AL
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Antimony	1.9	0.25	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AC
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Selenium	0.26 B	0.63	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AQ
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Thallium	0.023 B	0.13	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AT
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Vanadium	13.4	0.63	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AU
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Zinc	53.4	2.5	mg/kg	SW846 6020	10/19-10/20/10	L8K1R1AV
		Dilution Factor: 1		Analysis Time..: 21:57	Analyst ID.....: 000079	
		Instrument ID..: I8				
Mercury	0.034 B	0.13	mg/kg	SW846 7471A	10/19-10/25/10	L8K1R1AX
		Dilution Factor: 1		Analysis Time..: 15:13	Analyst ID.....: 001576	
		Instrument ID..: H1				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

A0J150598

The following report contains the analytical results for one solid sample and two water samples submitted to TestAmerica North Canton by Tetra Tech NUS, Inc from the MRC/MSA STORMWATER/SEDIMENT Site, project number 112IC02903. The samples were received October 15, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Dev Murali, Kelly Carper, and Tobrena Skeen on October 26, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Patrick J. O'Meara, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.0°C.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for batch(es) 0291016 and 0292022 due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

The matrix spike/matrix spike duplicate(s) for batch(es) 0292022 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

No ICP MS Form IX provided for batch(es) 0291016 and 0292022. The serial dilutions were performed on a different sample from the same QC batch(es).

Based on SW846 6020 method requirements an IDL must be analyzed quarterly. The quarterly IDL study was analyzed but the ICPMS IDL form in this data package reflects the previous quarter IDL study. A current IDL can be provided upon request.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

ANALYTICAL METHODS SUMMARY

A0J150598

PARAMETER	ANALYTICAL METHOD
ICP-MS (6020)	SW846 6020
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A
Total Residue as Percent Solids	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

GPL LABORATORIES, LLLP

7210A Corporate Court
Frederick, MD 21703
(301) 694-5310
Fax (301) 620-0731

Contract #/Billing Reference

1 of 1 Pgs.

Project: MRC/MSA Storm Water/Sediment Sampling
Client: Tetra Tech
Send Results To: Mike Martin
Address: 20251 Century Blvd Ste 200
Germantown MD 20874
Phone: (301)528-5552

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	Turnaround Time	# of Containers	Container Type	Preservative Used	Type of Analysis: Total Metals	Type of Analysis: Total Metals	Lab Cooler No.	CLIENT COMMENTS
						1 each	1 each					
						Plastic	Glass					
						HNO3	None					
MRC-SW-1	10-14-10	1015	Aqueous	SBC					X	✓		
MSA-SW-1	10-14-10	1011	Aqueous	SBC					X	✓		
MRC-SED-1	10-14-10	1300	Sed	SBC						X ✓		

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
	10/14/10 1400				10/15/10 0930

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:

G.P. W.O. _____

North Canton

HOLD TIME

SDG A0J150598

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	MRC-SED-1	A0J150598003	NM	10/14/2010	10/19/2010	10/25/2010	5	6	11
HG	UG/L	MSA-SW-1	A0J150598002	NM	10/14/2010	10/18/2010	10/18/2010	4	0	4
HG	UG/L	MRC-SW-1	A0J150598001	NM	10/14/2010	10/18/2010	10/18/2010	4	0	4
M	MG/KG	MRC-SED-1	A0J150598003	NM	10/14/2010	10/19/2010	10/21/2010	5	2	7
M	MG/KG	MRC-SED-1	A0J150598003	NM	10/14/2010	10/19/2010	10/20/2010	5	1	6
M	UG/L	MSA-SW-1	A0J150598002	NM	10/14/2010	10/18/2010	10/19/2010	4	1	5
M	UG/L	MRC-SW-1	A0J150598001	NM	10/14/2010	10/18/2010	10/19/2010	4	1	5

SAMPLE SUMMARY

A0J150598

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L8K1C	001	MRC-SW-1	10/14/10	10:15
L8K1Q	002	MRC-SW-1	10/14/10	10:11
L8K1R	003	MRC-SED-1	10/14/10	13:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck5ICV 10/25/10 1:03 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.59	**103.6**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn **Acceptable Range:** 80% - 120%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck2CCV 10/25/10 1:06 PM		Ck2CCV 10/25/10 1:21 PM		Ck2CCV 10/25/10 1:35 PM		Ck2CCV 10/25/10 1:50 PM		Ck2CCV 10/25/10 2:05 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.09	**101.8**	5.05	**101.0**	4.91	**98.2**	4.81	**96.1**	4.91	**98.2**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg11025b.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck2CCV 10/25/10 2:19 PM Found	% Rec	Ck2CCV 10/25/10 2:33 PM Found	% Rec	Ck2CCV 10/25/10 2:49 PM Found	% Rec	Ck2CCV 10/25/10 3:03 PM Found	% Rec	Ck2CCV 10/25/10 3:16 PM Found	% Rec
Mercury	253.7	5.0	4.88	**97.6**	4.75	**94.9**	4.80	**96.1**	4.85	**97.0**	4.71	**94.1**

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck2ICV 10/18/10 11:06 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.32	**92.6**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 11:15 AM		Ck6CCV 10/18/10 11:37 AM		Ck6CCV 10/18/10 11:55 AM		Ck6CCV 10/18/10 12:09 PM		Ck6CCV 10/18/10 12:16 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.20	**104.0**	5.42	**108.3**	5.47	**109.3**	5.49	**109.9**	5.41	**108.1**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 12:23 PM		Ck6CCV 10/18/10 12:28 PM		Ck6CCV 10/18/10 12:47 PM		Ck6CCV 10/18/10 1:07 PM		Ck6CCV 10/18/10 1:27 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.29	**105.7**	5.51	**110.2**	5.38	**107.6**	5.45	**109.0**	5.26	**105.2**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 1:47 PM		Ck6CCV 10/18/10 2:01 PM		Ck6CCV 10/18/10 2:13 PM		Ck6CCV 10/18/10 2:35 PM		Ck6CCV 10/18/10 2:55 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.53	**110.6**	5.33	**106.6**	5.21	**104.2**	5.38	**107.5**	5.49	**109.7**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 3:07 PM		Ck6CCV 10/18/10 3:15 PM		Ck6CCV 10/18/10 3:34 PM		Ck6CCV 10/18/10 3:39 PM		Ck6CCV 10/18/10 4:03 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.39	**107.7**	5.28	**105.6**	5.57	**111.3**	5.54	**110.7**	5.42	**108.5**

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 4:12 PM		Ck6CCV 10/18/10 4:32 PM		Ck6CCV 10/18/10 4:52 PM		Ck6CCV 10/18/10 5:12 PM		Ck6CCV 10/18/10 5:30 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.40	**108.0**	5.46	**109.1**	5.43	**108.6**	2.78	**55.7**	5.10	**102.0**

No Samples Affected

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: hg41018a.prn

Acceptable Range: 80% - 120%

Standard Source: Ultra

Standard ID:

Element	WL/ Mass	True Conc	Ck6CCV 10/18/10 5:50 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.47	**109.3**								

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICV 10/19/10 10:07 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	80.0	81.15	**101.4**								
Arsenic	75	80.0	81.81	**102.3**								
Barium	137	80.0	79.73	**99.7**								
Beryllium	9	80.0	82.40	**103.0**								
Cadmium	111	80.0	84.49	**105.6**								
Chromium	52	80.0	81.48	**101.9**								
Cobalt	59	80.0	81.15	**101.4**								
Copper	65	80.0	83.14	**103.9**								
Iron	56	20000.0	20316.67	**101.6**								
Lead	208	80.0	81.23	**101.5**								
Manganese	55	400.0	422.87	**105.7**								
Molybdenum	95	80.0	80.13	**100.2**								
Nickel	60	80.0	82.34	**102.9**								
Selenium	78	80.0	81.09	**101.4**								
Silver	107	80.0	82.94	**103.7**								
Thallium	205	80.0	81.27	**101.6**								
Vanadium	51	80.0	81.37	**101.7**								
Zinc	66	80.0	86.46	**108.1**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS

Units: ug/L

Chart Number: I81019A.csv

Acceptable Range: 90% - 110%

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	True Conc	CCV 10/19/10 10:35 AM Found	% Rec	CCV 6 10/19/10 4:34 PM Found	% Rec	CCV 7 10/19/10 5:43 PM Found	% Rec	CCV 8 10/19/10 6:48 PM Found	% Rec	Found	% Rec
Antimony	121	100.0	101.83	**101.8**	103.03	**103.0**	103.17	**103.2**	104.20	**104.2**		
Arsenic	75	100.0	101.73	**101.7**	101.30	**101.3**	100.94	**100.9**	102.50	**102.5**		
Barium	137	100.0	100.65	**100.7**	102.44	**102.4**	101.61	**101.6**	104.77	**104.8**		
Beryllium	9	100.0	100.77	**100.8**	98.57	**98.6**	99.93	**99.9**	99.90	**99.9**		
Cadmium	111	100.0	103.63	**103.6**	104.47	**104.5**	105.53	**105.5**	105.40	**105.4**		
Chromium	52	100.0	100.88	**100.9**	99.52	**99.5**	101.62	**101.6**	102.13	**102.1**		
Cobalt	59	100.0	102.16	**102.2**	101.72	**101.7**	101.43	**101.4**	103.03	**103.0**		
Copper	65	100.0	103.97	**104.0**	103.80	**103.8**	103.13	**103.1**	104.00	**104.0**		
Iron	56	25000.0	25573.33	**102.3**	25406.67	**101.6**	25743.33	**103.0**	26233.33	**104.9**		
Lead	208	100.0	100.79	**100.8**	103.07	**103.1**	103.00	**103.0**	103.47	**103.5**		
Manganese	55	500.0	521.77	**104.4**	524.10	**104.8**	527.90	**105.6**	529.87	**106.0**		
Molybdenum	95	100.0	104.97	**105.0**	106.17	**106.2**	104.80	**104.8**	106.70	**106.7**		
Nickel	60	100.0	103.83	**103.8**	102.77	**102.8**	102.40	**102.4**	104.00	**104.0**		
Selenium	78	100.0	101.20	**101.2**	101.94	**101.9**	101.76	**101.8**	101.90	**101.9**		
Silver	107	100.0	102.27	**102.3**	106.47	**106.5**	105.20	**105.2**	106.43	**106.4**		
Thallium	205	100.0	104.90	**104.9**	106.43	**106.4**	104.60	**104.6**	105.27	**105.3**		
Vanadium	51	100.0	98.95	**98.9**	100.70	**100.7**	100.48	**100.5**	101.30	**101.3**		
Zinc	66	100.0	105.17	**105.2**	104.20	**104.2**	104.17	**104.2**	105.03	**105.0**		

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 90% - 110%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	ICV 10/20/10 1:46 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	80.0	81.52	**101.9**								
Arsenic	75	80.0	80.26	**100.3**								
Barium	137	80.0	78.69	**98.4**								
Beryllium	9	80.0	80.31	**100.4**								
Cadmium	111	80.0	83.61	**104.5**								
Chromium	52	80.0	77.55	**96.9**								
Cobalt	59	80.0	81.05	**101.3**								
Iron	56	20000.0	19800.00	**99.0**								
Lead	208	80.0	78.95	**98.7**								
Manganese	55	400.0	407.90	**102.0**								
Molybdenum	95	80.0	81.52	**101.9**								
Nickel	60	80.0	80.75	**100.9**								
Selenium	78	80.0	81.17	**101.5**								
Silver	107	80.0	82.09	**102.6**								
Thallium	205	80.0	82.49	**103.1**								
Vanadium	51	80.0	78.07	**97.6**								
Zinc	66	80.0	81.80	**102.3**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS

Units: ug/L

Chart Number: I81020A.csv

Acceptable Range: 90% - 110%

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	True Conc	CCV 10/20/10 2:20 PM Found	% Rec	CCV 10/20/10 7:31 PM Found	% Rec	CCV 3 10/20/10 8:05 PM Found	% Rec	CCV 4 10/20/10 9:07 PM Found	% Rec	CCV 5 10/20/10 10:12 PM Found	% Rec
Antimony	121	100.0	102.83	**102.8**	101.57	**101.6**	101.70	**101.7**	100.59	**100.6**	101.60	**101.6**
Arsenic	75	100.0	99.57	**99.6**	100.23	**100.2**	100.67	**100.7**	101.73	**101.7**	99.63	**99.6**
Barium	137	100.0	98.74	**98.7**	100.14	**100.1**	100.43	**100.4**	102.37	**102.4**	98.50	**98.5**
Beryllium	9	100.0	100.31	**100.3**	101.36	**101.4**	100.69	**100.7**	104.03	**104.0**	99.42	**99.4**
Cadmium	111	100.0	104.47	**104.5**	104.43	**104.4**	102.78	**102.8**	102.20	**102.2**	103.70	**103.7**
Chromium	52	100.0	97.62	**97.6**	100.69	**100.7**	99.06	**99.1**	103.10	**103.1**	101.67	**101.7**
Cobalt	59	100.0	98.07	**98.1**	100.49	**100.5**	99.36	**99.4**	103.07	**103.1**	99.89	**99.9**
Iron	56	25000.0	24673.33	**98.7**	25193.33	**100.8**	24936.67	**99.7**	26223.33	**104.9**	25350.00	**101.4**
Lead	208	100.0	101.33	**101.3**	101.63	**101.6**	101.83	**101.8**	101.23	**101.2**	102.07	**102.1**
Manganese	55	500.0	507.67	**101.5**	505.67	**101.1**	504.93	**101.0**	508.33	**101.7**	513.80	**102.8**
Molybdenum	95	100.0	106.00	**106.0**	104.97	**105.0**	105.87	**105.9**	106.33	**106.3**	105.37	**105.4**
Nickel	60	100.0	100.13	**100.1**	102.40	**102.4**	100.59	**100.6**	104.10	**104.1**	100.99	**101.0**
Selenium	78	100.0	101.20	**101.2**	99.91	**99.9**	99.94	**99.9**	99.38	**99.4**	98.90	**98.9**
Silver	107	100.0	104.87	**104.9**	104.70	**104.7**	104.27	**104.3**	102.37	**102.4**	104.50	**104.5**
Thallium	205	100.0	107.70	**107.7**	103.87	**103.9**	105.33	**105.3**	101.53	**101.5**	105.37	**105.4**
Vanadium	51	100.0	98.99	**99.0**	101.09	**101.1**	99.19	**99.2**	100.87	**100.9**	102.47	**102.5**
Zinc	66	100.0	103.07	**103.1**	102.10	**102.1**	101.10	**101.1**	100.79	**100.8**	102.67	**102.7**

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 90% - 110%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICV 10/21/10 10:55 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	80.0	82.84	**103.6**								
Manganese	55	400.0	410.97	**102.7**								

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPMS

Units: ug/L

Chart Number: I81021A.csv

Acceptable Range: 90% - 110%

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	True Conc	CCV 10/21/10 11:25 AM Found	% Rec	CCV 10/21/10 11:43 AM Found	% Rec	CCV 2 10/21/10 1:35 PM Found	% Rec	CCV 3 10/21/10 2:39 PM Found	% Rec	CCV 4 10/21/10 3:44 PM Found	% Rec
Copper	65	100.0	101.53	**101.5**	102.47	**102.5**	102.37	**102.4**	104.93	**104.9**	101.73	**101.7**
Manganese	55	500.0	512.07	**102.4**	512.73	**102.5**	507.17	**101.4**	509.87	**102.0**	514.20	**102.8**

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck3CRA\MRL 10/25/10 1:05 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.21	**105.7**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:**

Element	WL/ Mass	True Conc	Ck4CRA\MRL 10/18/10 11:13 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.27	136.3								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	CRI 10/19/10 10:19 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	2.0	2.04	**102.0**								
Arsenic	75	2.0	1.96	**97.8**								
Barium	137	1.0	1.03	**102.9**								
Beryllium	9	1.0	1.06	**105.8**								
Cadmium	111	0.5	0.44	**88.7**								
Chromium	52	2.0	2.10	**105.2**								
Cobalt	59	1.0	1.03	**103.0**								
Copper	65	2.0	2.26	**112.8**								
Iron	56	50.0	62.20	**124.4**								
Lead	208	1.0	1.02	**101.7**								
Manganese	55	1.0	1.42	**141.9**								
Molybdenu	95	10.0	9.49	**94.9**								
Nickel	60	2.0	2.36	**118.2**								
Selenium	78	2.0	1.83	**91.4**								
Silver	107	0.5	0.56	**111.8**								
Thallium	205	1.0	1.18	**117.7**								
Vanadium	51	5.0	5.20	**104.0**								
Zinc	66	10.0	10.60	**106.0**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	CRI 10/20/10 2:04 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	2.0	2.01	**100.5**								
Arsenic	75	2.0	1.87	**93.3**								
Barium	137	1.0	0.95	**94.6**								
Beryllium	9	1.0	1.03	**102.6**								
Cadmium	111	0.5	0.48	**95.6**								
Chromium	52	2.0	1.93	**96.5**								
Cobalt	59	1.0	0.97	**97.4**								
Iron	56	50.0	57.49	**115.0**								
Lead	208	1.0	0.96	**95.8**								
Manganese	55	1.0	1.10	**110.1**								
Molybdenu	95	10.0	9.82	**98.2**								
Nickel	60	2.0	1.94	**96.8**								
Selenium	78	2.0	1.65	**82.4**								
Silver	107	0.5	0.56	**111.7**								
Thallium	205	1.0	1.01	**100.8**								
Vanadium	51	5.0	4.85	**97.0**								
Zinc	66	10.0	8.93	**89.3**								

TestAmerica North Canton

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	CRI 10/21/10 11:38 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	2.0	1.95	**97.7**								
Manganese	55	1.0	1.10	**109.8**								

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck4ICB 10/25/10 1:04 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U								

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck1CCB 10/25/10 1:08 PM		Ck1CCB 10/25/10 1:23 PM		Ck1CCB 10/25/10 1:36 PM		Ck1CCB 10/25/10 1:51 PM		Ck1CCB 10/25/10 2:06 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	**0.1**	**B**	0.1	U	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg11025b.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck1CCB 10/25/10 2:20 PM Found	Q	Ck1CCB 10/25/10 2:34 PM Found	Q	Ck1CCB 10/25/10 2:50 PM Found	Q	Ck1CCB 10/25/10 3:05 PM Found	Q	Ck1CCB 10/25/10 3:17 PM Found	Q
Mercury	253.7	0.2	**0.1**	**B**	0.1	U	0.1	U	0.1	U	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck3ICB 10/18/10 11:08 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U								

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 11:17 AM Found	Q	Ck5CCB 10/18/10 11:38 AM Found	Q	Ck5CCB 10/18/10 11:57 AM Found	Q	Ck5CCB 10/18/10 12:10 PM Found	Q	Ck5CCB 10/18/10 12:18 PM Found	Q
Mercury	253.7	0.2	**-0.2**	**B**	**-0.1**	**B**	0.1	U	0.1	U	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 12:24 PM Found	Q	Ck5CCB 10/18/10 12:30 PM Found	Q	Ck5CCB 10/18/10 12:50 PM Found	Q	Ck5CCB 10/18/10 1:09 PM Found	Q	Ck5CCB 10/18/10 1:29 PM Found	Q
Mercury	253.7	0.2	**-0.2**	**B**	**-0.2**	**B**	0.1	U	0.1	U	**-0.4**	

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 1:49 PM		Ck5CCB 10/18/10 2:03 PM		Ck5CCB 10/18/10 2:15 PM		Ck5CCB 10/18/10 2:37 PM		Ck5CCB 10/18/10 2:56 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U	**-0.3**		**-0.1**	**B**	0.1	U	0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 3:08 PM		Ck5CCB 10/18/10 3:17 PM		Ck5CCB 10/18/10 3:35 PM		Ck5CCB 10/18/10 3:41 PM		Ck5CCB 10/18/10 4:04 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	**-0.1**	**B**	0.1	U	0.1	U	**-0.1**	**B**	**-0.2**	

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 4:14 PM Found	Q	Ck5CCB 10/18/10 4:33 PM Found	Q	Ck5CCB 10/18/10 4:53 PM Found	Q	Ck5CCB 10/18/10 5:13 PM Found	Q	Ck5CCB 10/18/10 5:32 PM Found	Q
Mercury	253.7	0.2	0.1	U	0.1	U	**-0.3**		**-0.5**		0.1	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: hg41018a.prn

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	Ck5CCB 10/18/10 5:52 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	**-0.1**	**B**								

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/19/10 10:14 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Antimony	121	2	**0.042**	**B**								
Arsenic	75	5	0.2	U								
Barium	137	1	0.058	U								
Beryllium	9	1	**0.0083**	**B**								
Cadmium	111	1	0.0074	U								
Chromium	52	2	0.12	U								
Cobalt	59	1	0.0066	U								
Copper	65	2	0.29	U								
Iron	56	50	3.2	U								
Lead	208	1	0.017	U								
Manganese	55	1	0.39	U								
Molybdenum	95	2	0.34	U								
Nickel	60	1	0.33	U								
Selenium	78	5	0.54	U								
Silver	107	1	0.0048	U								
Thallium	205	1	**0.44**	**B**								
Vanadium	51	5	0.24	U								
Zinc	66	20	8	U								

U Result is less than the IDL
B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/19/10 10:42 AM Found	Q	CCB 6 10/19/10 4:41 PM Found	Q	CCB 7 10/19/10 5:50 PM Found	Q	CCB 8 10/19/10 6:55 PM Found	Q	Found	Q
Antimony	121	2	0.038	U	**0.045**	**B**	**0.045**	**B**	**0.042**	**B**		
Arsenic	75	5	0.2	U	0.2	U	0.2	U	0.2	U		
Barium	137	1	0.058	U	0.058	U	0.058	U	0.058	U		
Beryllium	9	1	**0.012**	**B**	**0.023**	**B**	**0.027**	**B**	**0.038**	**B**		
Cadmium	111	1	0.0074	U	**0.017**	**B**	**0.042**	**B**	**0.03**	**B**		
Chromium	52	2	0.12	U	0.12	U	0.12	U	0.12	U		
Cobalt	59	1	0.0066	U	**0.02**	**B**	**0.021**	**B**	**0.027**	**B**		
Copper	65	2	0.29	U	0.29	U	0.29	U	0.29	U		
Iron	56	50	3.2	U	**7.7**	**B**	**8.6**	**B**	**10**	**B**		
Lead	208	1	0.017	U	**0.026**	**B**	**0.038**	**B**	**0.038**	**B**		
Manganese	55	1	0.39	U	0.39	U	0.39	U	0.39	U		
Molybdenum	95	2	0.34	U	0.34	U	0.34	U	0.34	U		
Nickel	60	1	0.33	U	0.33	U	0.33	U	0.33	U		
Selenium	78	5	0.54	U	0.54	U	0.54	U	0.54	U		
Silver	107	1	**0.0083**	**B**	**0.021**	**B**	**0.031**	**B**	**0.032**	**B**		
Thallium	205	1	**0.51**	**B**	**0.56**	**B**	**0.6**	**B**	**0.49**	**B**		
Vanadium	51	5	0.24	U	**-0.27**	**B**	0.24	U	**-0.49**	**B**		
Zinc	66	20	8	U	8	U	8	U	8	U		

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/20/10 1:53 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Antimony	121	2	0.038	U								
Arsenic	75	5	0.2	U								
Barium	137	1	0.058	U								
Beryllium	9	1	**0.009**	**B**								
Cadmium	111	1	0.0074	U								
Chromium	52	2	0.12	U								
Cobalt	59	1	0.0066	U								
Iron	56	50	3.2	U								
Lead	208	1	0.017	U								
Manganese	55	1	0.39	U								
Molybdenum	95	2	0.34	U								
Nickel	60	1	0.33	U								
Selenium	78	5	0.54	U								
Silver	107	1	0.0048	U								
Thallium	205	1	**0.25**	**B**								
Vanadium	51	5	**-0.73**	**B**								
Zinc	66	20	8	U								

U Result is less than the IDL
B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/20/10 2:27 PM Found	Q	CCB 10/20/10 7:38 PM Found	Q	CCB 3 10/20/10 8:12 PM Found	Q	CCB 4 10/20/10 9:14 PM Found	Q	CCB 5 10/20/10 10:19 PM Found	Q
Antimony	121	2	0.038	U	0.038	U	**0.06**	**B**	0.038	U	**0.052**	**B**
Arsenic	75	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	137	1	0.058	U	0.058	U	0.058	U	0.058	U	0.058	U
Beryllium	9	1	**0.0077**	**B**	**0.0077**	**B**	**0.021**	**B**	**0.029**	**B**	**0.026**	**B**
Cadmium	111	1	0.0074	U	0.0074	U	**0.024**	**B**	**0.034**	**B**	**0.025**	**B**
Chromium	52	2	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U
Cobalt	59	1	0.0066	U	**0.02**	**B**	**0.018**	**B**	**0.016**	**B**	**0.034**	**B**
Iron	56	50	3.2	U	**6.3**	**B**	**7.2**	**B**	**9.3**	**B**	**11.5**	**B**
Lead	208	1	0.017	U	0.017	U	0.017	U	**0.11**	**B**	**0.082**	**B**
Manganese	55	1	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U
Molybdenum	95	2	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
Nickel	60	1	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Selenium	78	5	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U
Silver	107	1	0.0048	U	**0.022**	**B**	**0.018**	**B**	**0.035**	**B**	**0.029**	**B**
Thallium	205	1	**0.29**	**B**	**0.26**	**B**	**0.31**	**B**	**0.22**	**B**	**0.27**	**B**
Vanadium	51	5	0.24	U	0.24	U	**-0.46**	**B**	**-0.75**	**B**	**-0.42**	**B**
Zinc	66	20	8	U	8	U	8	U	8	U	8	U

U Result is less than the IDL

B Result is between IDL and RL

TestAmerica North Canton

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 10/21/10 11:02 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Copper	65	2	0.29	U								
Manganese	55	1	0.39	U								

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB 10/21/10 11:31 AM Found	Q	CCB 10/21/10 11:50 AM Found	Q	CCB 2 10/21/10 1:42 PM Found	Q	CCB 3 10/21/10 2:46 PM Found	Q	CCB 4 10/21/10 3:51 PM Found	Q
Copper	65	2	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U
Manganese	55	1	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U

U Result is less than the IDL

B Result is between IDL and RL

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0J180000-016 **Prep Batch #...:** 0291016						
Antimony	ND	2.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CT
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	5.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CL
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Barium	0.84 B	**1.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8L7H1C3**
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Beryllium	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CM
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Cadmium	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CN
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Chromium	ND	2.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1DA
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Cobalt	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CP
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Copper	0.52 B	**2.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8L7H1CQ**
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Iron	ND	50.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1C4
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Lead	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CR
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Manganese	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1C5
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	2.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1C6
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Nickel	ND	2.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1C7
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	5.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CU
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CK
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Thallium	ND	1.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1C8
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	20.0	ug/L	SW846 6020	10/18-10/19/10	L8L7H1CV
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	**5.8 B**	**20.0**	**ug/L**	**SW846 6020**	**10/18-10/19/10**	**L8L7H1C9**
		Dilution Factor: 1				
		Analysis Time..: 17:12		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.20	ug/L	SW846 7470A	10/18/10	L8L7H1CW
		Dilution Factor: 1				
		Analysis Time..: 17:36		Analyst ID.....: 001576	Instrument ID..: H4	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0J190000-022 **Prep Batch #...:** 0292022						
Antimony	ND	0.20	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1AD
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Arsenic	ND	0.50	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CL
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Barium	0.091 B	**0.10**	**mg/kg**	**SW846 6020**	**10/19-10/20/10**	**L8NTR1CM**
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Beryllium	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CN
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Cadmium	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CP
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Chromium	0.062 B	**0.20**	**mg/kg**	**SW846 6020**	**10/19-10/20/10**	**L8NTR1C3**
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Cobalt	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1AA
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Copper	0.18 B	**0.20**	**mg/kg**	**SW846 6020**	**10/19-10/21/10**	**L8NTR1CQ**
		Dilution Factor: 1				
		Analysis Time..: 13:53		Analyst ID.....: 000079	Instrument ID..: I8	
Iron	3.9 B	**5.0**	**mg/kg**	**SW846 6020**	**10/19-10/20/10**	**L8NTR1CR**
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Lead	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CT
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Manganese	1.3	**0.10**	**mg/kg**	**SW846 6020**	**10/19-10/21/10**	**L8NTR1CU**
		Dilution Factor: 1				
		Analysis Time..: 13:53		Analyst ID.....: 000079	Instrument ID..: I8	

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	ND	0.20	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CV
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Nickel	**0.032 B**	**0.10**	**mg/kg**	**SW846 6020**	**10/19-10/20/10**	**L8NTR1CW**
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Selenium	ND	0.50	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1CX
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Silver	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1C0
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Thallium	ND	0.10	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1AC
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Vanadium	ND	0.50	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1C1
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Zinc	ND	2.0	mg/kg	SW846 6020	10/19-10/20/10	L8NTR1C2
		Dilution Factor: 1				
		Analysis Time..: 19:53		Analyst ID.....: 000079	Instrument ID..: I8	
Mercury	ND	0.10	mg/kg	SW846 7471A	10/19-10/25/10	L8NTR1DM
		Dilution Factor: 1				
		Analysis Time..: 14:54		Analyst ID.....: 001576	Instrument ID..: H1	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

SDG A0J150598

Soil

Affected Analyte	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Sb	MRC-SED-1	1.9		Fe	50900	0.11	33700	0.07	na	na
As		2.9			50900	0.34	33700	0.23	na	na
Ba		57.5			50900	0.094	33700	0.06	na	na
Be		0.26			50900	0.011	33700	0.01	na	na
Cd		0.12			50900	-0.67	33700	-0.44	J	na
Cr		122			50900	0.57	33700	0.38	na	na
Co		4.8			50900	0.073	33700	0.05	na	na
Cu		255			50900	1	33700	0.66	na	na
Pb		5.8			50900	0.11	33700	0.07	na	na
Ni		32.3			50900	0.44	33700	0.29	na	na
Ag		0.057			50900	0.076	33700	0.05	J	na
V		13.4			50900	-0.53	33700	-0.35	na	na

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 0% - 0%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/20/10 2:09 PM Found	Found	Found	Found	Found
Antimony	121	2		0.110				
Arsenic	75	5		0.340				
Barium	137	1		0.094				
Beryllium	9	1		0.011				
Cadmium	111	1		-0.670				
Chromium	52	2		0.570				
Cobalt	59	1		0.073				
Iron	56		50000	50900				
Lead	208	1		0.110				
Manganese	55	1		0.180				
Molybdenum	95	2	1000	1040				
Nickel	60	1		0.440				
Selenium	78	5		-0.110				
Silver	107	1		0.076				
Thallium	205	1		0.065				
Vanadium	51	5		-0.530				
Zinc	66	20		0.240				

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 0% - 0%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/21/10 11:13 AM Found	Found	Found	Found	Found
Copper	65	2		1				
Manganese	55	1		0.130				

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

Form 4 Equivalent

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv **Acceptable Range:** 0% - 0%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 10/19/10 10:24 AM Found	Found	Found	Found	Found
Antimony	121	2		0.120				
Arsenic	75	5		0.320				
Barium	137	1		0.092				
Beryllium	9	1		0.010				
Cadmium	111	1		-0.720				
Chromium	52	2		0.630				
Cobalt	59	1		0.080				
Copper	65	2		0.110				
Iron	56		50000	51000				
Lead	208	1		0.100				
Manganese	55	1		0.099				
Molybdenum	95	2	1000	1040				
Nickel	60	1		0.470				
Selenium	78	5		-0.061				
Silver	107	1		0.065				
Thallium	205	1		0.190				
Vanadium	51	5		-0.040				
Zinc	66	20		0.860				

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81019A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICSAB 10/19/10 10:28 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	100	100.1	**100.1**								
Arsenic	75	100	98.2	**98.2**								
Barium	137	100	100.5	**100.5**								
Beryllium	9	100	98.1	**98.1**								
Cadmium	111	100	100.3	**100.3**								
Chromium	52	100	98.1	**98.1**								
Cobalt	59	100	98.3	**98.3**								
Copper	65	100	98.5	**98.5**								
Iron	56	50000	51306.7	**102.6**								
Lead	208	100	99.0	**99.0**								
Manganese	55	100	106.2	**106.2**								
Molybdenum	95	1000	1137.7	**113.8**								
Nickel	60	100	100.6	**100.6**								
Selenium	78	100	97.1	**97.1**								
Silver	107	100	100.2	**100.2**								
Thallium	205	100	101.4	**101.4**								
Vanadium	51	100	98.0	**98.0**								
Zinc	66	100	101.2	**101.2**								

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81020A.csv **Acceptable Range:** 50% - 150%

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	True Conc	ICSAB 10/20/10 2:14 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	121	100	98.3	**98.3**								
Arsenic	75	100	96.8	**96.8**								
Barium	137	100	97.8	**97.8**								
Beryllium	9	100	98.5	**98.5**								
Cadmium	111	100	99.0	**99.0**								
Chromium	52	100	98.1	**98.1**								
Cobalt	59	100	96.6	**96.6**								
Iron	56	50000	50893.3	**101.8**								
Lead	208	100	98.6	**98.6**								
Manganese	55	100	96.4	**96.4**								
Molybdenum	95	1000	1141.3	**114.1**								
Nickel	60	100	98.9	**98.9**								
Selenium	78	100	95.9	**95.9**								
Silver	107	100	98.8	**98.8**								
Thallium	205	100	102.0	**102.0**								
Vanadium	51	100	97.7	**97.7**								
Zinc	66	100	98.4	**98.4**								

TestAmerica North Canton

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPMS **Units:** ug/L

Chart Number: I81021A.csv **Acceptable Range:** 50% - 150%

Standard Source: **Standard ID:**

Element	WL/ Mass	True Conc	ICSAB 10/21/10 11:18 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Copper	65	100	97.3	**97.3**								
Manganese	55	100	96.5	**96.5**								

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J180000-016 **Prep Batch #...:** 0291016					
Antimony	94	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1AV
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Copper	97	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1AW
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Silver	100	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1AX
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Thallium	89	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1A0
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Arsenic	92	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1D6
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Beryllium	91	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1D7
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Cadmium	97	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1D8
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Cobalt	92	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1D9
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Lead	89	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EA
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Selenium	91	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EC
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	90	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1ED
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Barium	92	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EJ
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Iron	94	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EK
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Manganese	99	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EL
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Molybdenum	92	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EM
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Nickel	96	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EN
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Zinc	101	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EP
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Chromium	92	(80 - 120)	SW846 6020	10/18-10/19/10	L8L7H1EQ
		Dilution Factor: 1	Analysis Time..: 17:17	Analyst ID.....: 000079	
		Instrument ID..: I8			
Mercury	120	(81 - 123)	SW846 7470A	10/18/10	L8L7H1CE
		Dilution Factor: 1	Analysis Time..: 17:37	Analyst ID.....: 001576	
		Instrument ID..: H4			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J180000-016 **Prep Batch #...:** 0291016							
Antimony	100	94.2	ug/L	94	SW846 6020	10/18-10/19/10	L8L7H1AV
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	100	96.7	ug/L	97	SW846 6020	10/18-10/19/10	L8L7H1AW
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Silver	100	100	ug/L	100	SW846 6020	10/18-10/19/10	L8L7H1AX
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	100	89.2	ug/L	89	SW846 6020	10/18-10/19/10	L8L7H1A0
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Arsenic	100	92.0	ug/L	92	SW846 6020	10/18-10/19/10	L8L7H1D6
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	100	90.6	ug/L	91	SW846 6020	10/18-10/19/10	L8L7H1D7
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	100	97.1	ug/L	97	SW846 6020	10/18-10/19/10	L8L7H1D8
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cobalt	100	91.9	ug/L	92	SW846 6020	10/18-10/19/10	L8L7H1D9
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	100	89.0	ug/L	89	SW846 6020	10/18-10/19/10	L8L7H1EA
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	100	90.8	ug/L	91	SW846 6020	10/18-10/19/10	L8L7H1EC
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	100	90.2	ug/L	90	SW846 6020	10/18-10/19/10	L8L7H1ED
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Barium	100	92.1	ug/L	92	SW846 6020	10/18-10/19/10	L8L7H1EJ
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	10000	9440	ug/L	94	SW846 6020	10/18-10/19/10	L8L7H1EK
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Manganese	100	99.4	ug/L	99	SW846 6020	10/18-10/19/10	L8L7H1EL
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Molybdenum	100	91.6	ug/L	92	SW846 6020	10/18-10/19/10	L8L7H1EM
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	100	95.7	ug/L	96	SW846 6020	10/18-10/19/10	L8L7H1EN
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Zinc	100	101	ug/L	101	SW846 6020	10/18-10/19/10	L8L7H1EP
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	100	91.6	ug/L	92	SW846 6020	10/18-10/19/10	L8L7H1EQ
			Dilution Factor: 1		Analysis Time..: 17:17	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	5.0	6.0	ug/L	120	SW846 7470A	10/18/10	L8L7H1CE
			Dilution Factor: 1		Analysis Time..: 17:37	Analyst ID.....: 001576	
			Instrument ID..: H4				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0J190000-022 **Prep Batch #...:** 0292022					
Cobalt	88	(74 - 110)	SW846 6020	10/19-10/20/10	L8NTR1AT
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Thallium	90	(71 - 110)	SW846 6020	10/19-10/20/10	L8NTR1AU
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Antimony	83	(68 - 113)	SW846 6020	10/19-10/20/10	L8NTR1AV
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Arsenic	80	(73 - 110)	SW846 6020	10/19-10/20/10	L8NTR1C4
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Barium	87	(70 - 110)	SW846 6020	10/19-10/20/10	L8NTR1C5
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Cadmium	85	(74 - 110)	SW846 6020	10/19-10/20/10	L8NTR1C6
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Copper	91	(73 - 110)	SW846 6020	10/19-10/21/10	L8NTR1C7
		Dilution Factor: 1	Analysis Time..: 13:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Lead	88	(75 - 110)	SW846 6020	10/19-10/20/10	L8NTR1C8
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Selenium	73	(65 - 110)	SW846 6020	10/19-10/20/10	L8NTR1C9
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Silver	95	(60 - 114)	SW846 6020	10/19-10/20/10	L8NTR1DA
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	87	(72 - 113)	SW846 6020	10/19-10/20/10	L8NTR1DC
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Chromium	90	(70 - 110)	SW846 6020	10/19-10/20/10	L8NTR1DD
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Beryllium	83	(79 - 110)	SW846 6020	10/19-10/20/10	L8NTR1DE
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Iron	83	(80 - 120)	SW846 6020	10/19-10/20/10	L8NTR1DF
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Manganese	88	(80 - 120)	SW846 6020	10/19-10/20/10	L8NTR1DG
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Molybdenum	91	(30 - 140)	SW846 6020	10/19-10/20/10	L8NTR1DH
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Nickel	91	(75 - 110)	SW846 6020	10/19-10/20/10	L8NTR1DJ
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Vanadium	89	(72 - 110)	SW846 6020	10/19-10/20/10	L8NTR1DK
		Dilution Factor: 1	Analysis Time..: 19:58	Analyst ID.....: 000079	
		Instrument ID..: I8			
Mercury	93	(73 - 121)	SW846 7471A	10/19-10/25/10	L8NTR1DN
		Dilution Factor: 1	Analysis Time..: 14:55	Analyst ID.....: 001576	
		Instrument ID..: H1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

LCS Lot-Sample#: A0J190000-022 **Prep Batch #...:** 0292022

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	10.0	8.8	mg/kg	88	SW846 6020	10/19-10/20/10	L8NTR1AT
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Thallium	10.0	9.0	mg/kg	90	SW846 6020	10/19-10/20/10	L8NTR1AU
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Antimony	10.0	8.3	mg/kg	83	SW846 6020	10/19-10/20/10	L8NTR1AV
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Arsenic	10.0	8.0	mg/kg	80	SW846 6020	10/19-10/20/10	L8NTR1C4
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Barium	10.0	8.7	mg/kg	87	SW846 6020	10/19-10/20/10	L8NTR1C5
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Cadmium	10.0	8.5	mg/kg	85	SW846 6020	10/19-10/20/10	L8NTR1C6
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Copper	10.0	9.1	mg/kg	91	SW846 6020	10/19-10/21/10	L8NTR1C7
			Dilution Factor: 1		Analysis Time..: 13:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Lead	10.0	8.8	mg/kg	88	SW846 6020	10/19-10/20/10	L8NTR1C8
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Selenium	10.0	7.3	mg/kg	73	SW846 6020	10/19-10/20/10	L8NTR1C9
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Silver	10.0	9.5	mg/kg	95	SW846 6020	10/19-10/20/10	L8NTR1DA
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	10.0	8.7	mg/kg	87	SW846 6020	10/19-10/20/10	L8NTR1DC
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Chromium	10.0	9.0	mg/kg	90	SW846 6020	10/19-10/20/10	L8NTR1DD
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Beryllium	10.0	8.3	mg/kg	83	SW846 6020	10/19-10/20/10	L8NTR1DE
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Iron	1000	832	mg/kg	83	SW846 6020	10/19-10/20/10	L8NTR1DF
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Manganese	10.0	8.8	mg/kg	88	SW846 6020	10/19-10/20/10	L8NTR1DG
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Molybdenum	10.0	9.1	mg/kg	91	SW846 6020	10/19-10/20/10	L8NTR1DH
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Nickel	10.0	9.1	mg/kg	91	SW846 6020	10/19-10/20/10	L8NTR1DJ
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Vanadium	10.0	8.9	mg/kg	89	SW846 6020	10/19-10/20/10	L8NTR1DK
			Dilution Factor: 1		Analysis Time..: 19:58	Analyst ID.....: 000079	
			Instrument ID..: I8				
Mercury	0.83	0.77	mg/kg	93	SW846 7471A	10/19-10/25/10	L8NTR1DN
			Dilution Factor: 1		Analysis Time..: 14:55	Analyst ID.....: 001576	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Sample not in SDG

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J150408-002 **Prep Batch #...:** 0291016							
Antimony	96	(44 - 153)			SW846 6020	10/18-10/19/10	L8HWM1E7
	98	(44 - 153)	2.4	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1E8
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Arsenic	100	(82 - 123)			SW846 6020	10/18-10/19/10	L8HWM1EL
	100	(82 - 123)	0.68	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1EM
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Barium	97	(45 - 144)			SW846 6020	10/18-10/19/10	L8HWM1F1
	102	(45 - 144)	4.6	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1F2
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Beryllium	91	(77 - 124)			SW846 6020	10/18-10/19/10	L8HWM1EP
	91	(77 - 124)	0.45	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1EQ
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Cadmium	97	(78 - 117)			SW846 6020	10/18-10/19/10	L8HWM1ET
	99	(78 - 117)	2.1	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1EU
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Chromium	99	(72 - 110)			SW846 6020	10/18-10/19/10	L8HWM1GP
	98	(72 - 110)	0.21	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1GQ
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Cobalt	96	(67 - 114)			SW846 6020	10/18-10/19/10	L8HWM1EW
	98	(67 - 114)	1.8	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1EX
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Copper	97	(60 - 123)			SW846 6020	10/18-10/19/10	L8HWM1E1
	96	(60 - 123)	0.90	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1E2
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Iron	94	(22 - 169)			SW846 6020	10/18-10/19/10	L8HWM1F4
	95	(22 - 169)	1.7	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1F5
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Lead	99	(73 - 115)			SW846 6020	10/18-10/19/10	L8HWM1E4
	99	(73 - 115)	0.32	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1E5
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Manganese	NC,MSB	(10 - 172)			SW846 6020	10/18-10/19/10	L8HWM1F7
	NC,MSB	(10 - 172)		(0-20)	SW846 6020	10/18-10/19/10	L8HWM1F8
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Molybdenum	102	(80 - 110)			SW846 6020	10/18-10/19/10	L8HWM1GA
	104	(80 - 110)	2.0	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1GC
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Nickel	96	(72 - 111)			SW846 6020	10/18-10/19/10	L8HWM1GE
	97	(72 - 111)	0.39	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1GF
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Selenium	100	(72 - 148)			SW846 6020	10/18-10/19/10	L8HWM1FA
	102	(72 - 148)	1.9	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1FC
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Silver	97	(10 - 139)			SW846 6020	10/18-10/19/10	L8HWM1EH
	97	(10 - 139)	0.53	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1EJ
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Thallium	100	(69 - 117)			SW846 6020	10/18-10/19/10	L8HWM1GH
	101	(69 - 117)	1.6	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1GJ
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Vanadium	101	(70 - 112)			SW846 6020	10/18-10/19/10	L8HWM1FE
	99	(70 - 112)	1.8	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1FF
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	96	(49 - 156)			SW846 6020	10/18-10/19/10	L8HWM1GL
	95	(49 - 156)	0.89	(0-20)	SW846 6020	10/18-10/19/10	L8HWM1GM
		Dilution Factor: 1					
		Analysis Time..: 17:29			Instrument ID..: I8	Analyst ID.....: 000079	
Mercury	102	(69 - 134)			SW846 7470A	10/18/10	L8HWM1FH
	97	(69 - 134)	4.3	(0-20)	SW846 7470A	10/18/10	L8HWM1FJ
		Dilution Factor: 1					
		Analysis Time..: 17:40			Instrument ID..: H4	Analyst ID.....: 001576	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J150408-002 **Prep Batch #...:** 0291016									
Antimony									
	0.30	100	96.3	ug/L	96		SW846 6020	10/18-10/19/10	L8HWM1E7
	0.30	100	98.6	ug/L	98	2.4	SW846 6020	10/18-10/19/10	L8HWM1E8
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Arsenic									
	2.6	100	102	ug/L	100		SW846 6020	10/18-10/19/10	L8HWM1EL
	2.6	100	103	ug/L	100	0.68	SW846 6020	10/18-10/19/10	L8HWM1EM
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Barium									
	23.2	100	120	ug/L	97		SW846 6020	10/18-10/19/10	L8HWM1F1
	23.2	100	126	ug/L	102	4.6	SW846 6020	10/18-10/19/10	L8HWM1F2
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Beryllium									
	ND	100	91.0	ug/L	91		SW846 6020	10/18-10/19/10	L8HWM1EP
	ND	100	91.4	ug/L	91	0.45	SW846 6020	10/18-10/19/10	L8HWM1EQ
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Cadmium									
	0.22	100	97.1	ug/L	97		SW846 6020	10/18-10/19/10	L8HWM1ET
	0.22	100	99.2	ug/L	99	2.1	SW846 6020	10/18-10/19/10	L8HWM1EU
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Chromium									
	ND	100	98.6	ug/L	99		SW846 6020	10/18-10/19/10	L8HWM1GP
	ND	100	98.4	ug/L	98	0.21	SW846 6020	10/18-10/19/10	L8HWM1GQ
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Cobalt									
	2.8	100	98.9	ug/L	96		SW846 6020	10/18-10/19/10	L8HWM1EW
	2.8	100	101	ug/L	98	1.8	SW846 6020	10/18-10/19/10	L8HWM1EX
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper									
	0.54	100	97.6	ug/L	97		SW846 6020	10/18-10/19/10	L8HWM1E1
	0.54	100	96.7	ug/L	96	0.90	SW846 6020	10/18-10/19/10	L8HWM1E2
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Iron									
	ND	10000	9360	ug/L	94		SW846 6020	10/18-10/19/10	L8HWM1F4
	ND	10000	9520	ug/L	95	1.7	SW846 6020	10/18-10/19/10	L8HWM1F5
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Lead									
	ND	100	98.7	ug/L	99		SW846 6020	10/18-10/19/10	L8HWM1E4
	ND	100	99.0	ug/L	99	0.32	SW846 6020	10/18-10/19/10	L8HWM1E5
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Manganese									
	627	100	701	ug/L			SW846 6020	10/18-10/19/10	L8HWM1F7
			Qualifiers: NC,MSB						
	627	100	710	ug/L			SW846 6020	10/18-10/19/10	L8HWM1F8
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Molybdenum									
	6.4	100	108	ug/L	102		SW846 6020	10/18-10/19/10	L8HWM1GA
	6.4	100	110	ug/L	104	2.0	SW846 6020	10/18-10/19/10	L8HWM1GC
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Nickel									
	3.8	100	100	ug/L	96		SW846 6020	10/18-10/19/10	L8HWM1GE
	3.8	100	101	ug/L	97	0.39	SW846 6020	10/18-10/19/10	L8HWM1GF
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Selenium									
	ND	100	99.7	ug/L	100		SW846 6020	10/18-10/19/10	L8HWM1FA
	ND	100	102	ug/L	102	1.9	SW846 6020	10/18-10/19/10	L8HWM1FC
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** WATER
Date Sampled...: 10/14/10 10:12 **Date Received..:** 10/15/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver									
	ND	100	96.6	ug/L	97		SW846 6020	10/18-10/19/10	L8HWM1EH
	ND	100	97.1	ug/L	97	0.53	SW846 6020	10/18-10/19/10	L8HWM1EJ
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Thallium									
	0.48	100	100	ug/L	100		SW846 6020	10/18-10/19/10	L8HWM1GH
	0.48	100	102	ug/L	101	1.6	SW846 6020	10/18-10/19/10	L8HWM1GJ
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Vanadium									
	1.6	100	102	ug/L	101		SW846 6020	10/18-10/19/10	L8HWM1FE
	1.6	100	100	ug/L	99	1.8	SW846 6020	10/18-10/19/10	L8HWM1FF
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Zinc									
	3.1	100	99.5	ug/L	96		SW846 6020	10/18-10/19/10	L8HWM1GL
	3.1	100	98.6	ug/L	95	0.89	SW846 6020	10/18-10/19/10	L8HWM1GM
			Dilution Factor: 1						
			Analysis Time..: 17:29		Instrument ID..: I8			Analyst ID.....: 000079	
Mercury									
	ND	1.0	1.0	ug/L	102		SW846 7470A	10/18/10	L8HWM1FH
	ND	1.0	0.97	ug/L	97	4.3	SW846 7470A	10/18/10	L8HWM1FJ
			Dilution Factor: 1						
			Analysis Time..: 17:40		Instrument ID..: H4			Analyst ID.....: 001576	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Sample not in SDG

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/12/10 10:58 **Date Received..:** 10/14/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J140582-001 **Prep Batch #...:** 0292022						**% Moisture.....:** 100	
Mercury	80	(11 - 192)			SW846 7471A	10/19-10/25/10	L8HCD1A9
	78	(11 - 192)	1.6	(0-20)	SW846 7471A	10/19-10/25/10	L8HCD1CA

Dilution Factor: 1
Analysis Time..: 14:57 Instrument ID..: H1 Analyst ID.....: 001576

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/12/10 10:58 **Date Received..:** 10/14/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J140582-001 **Prep Batch #...:** 0292022									
								% Moisture.....: 100	
Mercury									
	ND	0.17	0.23	mg/kg	80		SW846 7471A	10/19-10/25/10	L8HCD1A9
	ND	0.17	0.23	mg/kg	78	1.6	SW846 7471A	10/19-10/25/10	L8HCD1CA

Dilution Factor: 1
Analysis Time..: 14:57 Instrument ID..: H1 Analyst ID.....: 001576

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Sample not in SDG

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/13/10 13:00 **Date Received..:** 10/15/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J150463-005 **Prep Batch #...:** 0292022							
						% Moisture.....: 45	
Antimony	20 N	(75 - 125)			SW846 6020	10/19-10/20/10	L8JMN1A0
	20 N	(75 - 125)	1.2	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1A1
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Arsenic	74	(23 - 131)			SW846 6020	10/19-10/20/10	L8JMN1DR
	71	(23 - 131)	3.3	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1DT
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Barium	NC,MSB	(10 - 199)			SW846 6020	10/19-10/20/10	L8JMN1DV
	NC,MSB	(10 - 199)		(0-20)	SW846 6020	10/19-10/20/10	L8JMN1DW
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Beryllium	79	(58 - 112)			SW846 6020	10/19-10/20/10	L8JMN1D0
	77	(58 - 112)	2.7	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1D1
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Cadmium	82	(58 - 110)			SW846 6020	10/19-10/20/10	L8JMN1D3
	81	(58 - 110)	1.6	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1D4
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Chromium	100	(10 - 199)			SW846 6020	10/19-10/20/10	L8JMN1E6
	85	(10 - 199)	4.3	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1E7
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Cobalt	80	(55 - 110)			SW846 6020	10/19-10/20/10	L8JMN1AU
	76	(55 - 110)	2.5	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1AV
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Copper	103	(10 - 199)			SW846 6020	10/19-10/21/10	L8JMN1D6
	82	(10 - 199)	4.9	(0-20)	SW846 6020	10/19-10/21/10	L8JMN1D7
		Dilution Factor: 1					
		Analysis Time..: 15:15			Instrument ID..: I8	Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/13/10 13:00 **Date Received..:** 10/15/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Iron	NC,MSB	(70 - 130)			SW846 6020	10/19-10/20/10	L8JMN1D9
	NC,MSB	(70 - 130)		(0-20)	SW846 6020	10/19-10/20/10	L8JMN1EA
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Lead	88	(10 - 199)			SW846 6020	10/19-10/20/10	L8JMN1ED
	85	(10 - 199)	2.2	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1EE
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Molybdenum	84	(10 - 199)			SW846 6020	10/19-10/20/10	L8JMN1EK
	86	(10 - 199)	1.6	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1EL
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Nickel	NC,MSB	(10 - 176)			SW846 6020	10/19-10/20/10	L8JMN1EN
	NC,MSB	(10 - 176)		(0-20)	SW846 6020	10/19-10/20/10	L8JMN1EP
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Selenium	68	(39 - 116)			SW846 6020	10/19-10/20/10	L8JMN1ER
	68	(39 - 116)	0.41	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1ET
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Silver	87	(75 - 125)			SW846 6020	10/19-10/20/10	L8JMN1EV
	86	(75 - 125)	0.54	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1EW
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Thallium	91	(62 - 110)			SW846 6020	10/19-10/20/10	L8JMN1AW
	89	(62 - 110)	2.4	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1AX
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Vanadium	97	(39 - 129)			SW846 6020	10/19-10/20/10	L8JMN1E0
	89	(39 - 129)	3.0	(0-20)	SW846 6020	10/19-10/20/10	L8JMN1E1
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	
Zinc	NC,MSB	(10 - 199)			SW846 6020	10/19-10/20/10	L8JMN1E3
	NC,MSB	(10 - 199)		(0-20)	SW846 6020	10/19-10/20/10	L8JMN1E4
		Dilution Factor: 1					
		Analysis Time..: 21:29			Instrument ID..: I8	Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0J150598 Matrix.....: SOLID
Date Sampled...: 10/13/10 13:00 Date Received..: 10/15/10

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/13/10 13:00 **Date Received..:** 10/15/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0J150463-005 **Prep Batch #...:** 0292022									
								% Moisture.....: 45	
Antimony									
	ND	18.2	3.7 N	mg/kg	20		SW846 6020	10/19-10/20/10	L8JMN1A0
	ND	18.2	3.7 N	mg/kg	20	1.2	SW846 6020	10/19-10/20/10	L8JMN1A1
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Arsenic									
	1.3	18.2	14.7	mg/kg	74		SW846 6020	10/19-10/20/10	L8JMN1DR
	1.3	18.2	14.2	mg/kg	71	3.3	SW846 6020	10/19-10/20/10	L8JMN1DT
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Barium									
	168	18.2	191	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1DV
			Qualifiers: NC,MSB						
	168	18.2	185	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1DW
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Beryllium									
	0.34	18.2	14.8	mg/kg	79		SW846 6020	10/19-10/20/10	L8JMN1D0
	0.34	18.2	14.4	mg/kg	77	2.7	SW846 6020	10/19-10/20/10	L8JMN1D1
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Cadmium									
	0.027	18.2	15.1	mg/kg	82		SW846 6020	10/19-10/20/10	L8JMN1D3
	0.027	18.2	14.8	mg/kg	81	1.6	SW846 6020	10/19-10/20/10	L8JMN1D4
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Chromium									
	45.1	18.2	63.3	mg/kg	100		SW846 6020	10/19-10/20/10	L8JMN1E6
	45.1	18.2	60.6	mg/kg	85	4.3	SW846 6020	10/19-10/20/10	L8JMN1E7
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598
Date Sampled...: 10/13/10 13:00 **Date Received..:** 10/15/10 **Matrix.....:** SOLID

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt									
	15.4	18.2	30.0	mg/kg	80		SW846 6020	10/19-10/20/10	L8JMN1AU
	15.4	18.2	29.3	mg/kg	76	2.5	SW846 6020	10/19-10/20/10	L8JMN1AV
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Copper									
	65.3	18.2	84.2	mg/kg	103		SW846 6020	10/19-10/21/10	L8JMN1D6
	65.3	18.2	80.2	mg/kg	82	4.9	SW846 6020	10/19-10/21/10	L8JMN1D7
			Dilution Factor: 1						
			Analysis Time..: 15:15		Instrument ID..: I8			Analyst ID.....: 000079	
Iron									
	30300	1820	34800	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1D9
			Qualifiers: NC,MSB						
	30300	1820	34000	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1EA
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Lead									
	12.0	18.2	28.0	mg/kg	88		SW846 6020	10/19-10/20/10	L8JMN1ED
	12.0	18.2	27.4	mg/kg	85	2.2	SW846 6020	10/19-10/20/10	L8JMN1EE
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Molybdenum									
	0.43	18.2	15.8	mg/kg	84		SW846 6020	10/19-10/20/10	L8JMN1EK
	0.43	18.2	16.0	mg/kg	86	1.6	SW846 6020	10/19-10/20/10	L8JMN1EL
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Nickel									
	119	18.2	140	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1EN
			Qualifiers: NC,MSB						
	119	18.2	132	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1EP
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Selenium									
	0.75	18.2	13.2	mg/kg	68		SW846 6020	10/19-10/20/10	L8JMN1ER
	0.75	18.2	13.1	mg/kg	68	0.41	SW846 6020	10/19-10/20/10	L8JMN1ET
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A0J150598 **Matrix.....:** SOLID
Date Sampled...: 10/13/10 13:00 **Date Received..:** 10/15/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver									
	0.037	18.2	15.9	mg/kg	87		SW846 6020	10/19-10/20/10	L8JMN1EV
	0.037	18.2	15.8	mg/kg	86	0.54	SW846 6020	10/19-10/20/10	L8JMN1EW
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Thallium									
	0.20	18.2	16.8	mg/kg	91		SW846 6020	10/19-10/20/10	L8JMN1AW
	0.20	18.2	16.4	mg/kg	89	2.4	SW846 6020	10/19-10/20/10	L8JMN1AX
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Vanadium									
	26.5	18.2	44.1	mg/kg	97		SW846 6020	10/19-10/20/10	L8JMN1E0
	26.5	18.2	42.8	mg/kg	89	3.0	SW846 6020	10/19-10/20/10	L8JMN1E1
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	
Zinc									
	143	18.2	141	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1E3
			Qualifiers: NC,MSB						
	143	18.2	153	mg/kg			SW846 6020	10/19-10/20/10	L8JMN1E4
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 21:29		Instrument ID..: I8			Analyst ID.....: 000079	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

Internal Stds

L8K1C 10/19/2010 18:07:11 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		93.923%	0.024	62.950
%RSD		1.560	6.829	0.723
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
X		27390.000	3081.000	393.200
%RSD		2.191	1.582	0.800
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
X		T 0.000	T 3637.000	20350.000
%RSD		T 0.000	T 1.367	0.957
Run	**Time**	**45Sc**	**45Sc**	**47Ti**
		ppb	ppb	ppb
X		T 92.031%	90.131%	9.829
%RSD		T 1.197	0.279	14.160
Run	**Time**	**51V**	**52Cr**	**53Cl(O)**
		ppb	ppb	ppb
X		3.716	6.687	0.005
%RSD		7.671	4.912	12000.000
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
X		23.620	602.600	0.403
%RSD		0.413	1.182	2.434
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
X		2.419	23.210	47.800
%RSD		10.560	2.375	1.096
Run	**Time**	**72Ge**	**75As**	**77Ar(Cl)**
		ppb	ppb	ppb
X		94.872%	2.614	0.130
%RSD		1.556	6.822	23.160
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
X		0.007	78.860	2.845
%RSD		3957.000	0.967	5.282
Run	**Time**	**105Pd**	**107Ag**	**103Rh(O)**
		ppb	ppb	ppb
X		0.000	0.028	2.911
%RSD		0.000	9.264	212.200
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
X		0.095	96.926%	0.568
%RSD		39.180	3.353	10.120
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
X		2.032	28.300	0.000
%RSD		1.752	2.298	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
X		0.000	0.169	0.192
%RSD		0.000	0.986	2.376
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
X		4.016	102.482%	
%RSD		1.116	2.030	

L8K1Q 10/19/2010 18:11:57 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		71.941%	0.039	M 387.000
%RSD		1.963	31.080	M 0.679
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		TM 945300.000	M 115900.000	409.700
%RSD		TM 4.988	M 3.412	4.725
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		T 0.000	T 37800.000	47870.000
%RSD		T 0.000	T 0.156	1.102
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 83.477%	91.709%	11.340
%RSD		T 1.648	5.272	17.190
Run	Time	51V	52Cr	53Cl O
		ppb	ppb	ppb
X		3.093	4.044	-0.095
%RSD		11.400	2.239	393.300
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		41.050	675.800	0.551
%RSD		1.204	2.329	5.118
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		2.789	8.832	42.550
%RSD		6.603	0.972	0.789
Run	Time	72Ge	75As	77Ar Cl
		ppb	ppb	ppb
X		85.581%	1.247	-0.228
%RSD		3.814	18.360	17.210
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		0.170	M 751.300	2.463
%RSD		155.800	M 1.085	2.442
Run	Time	105Pd	107Ag	108Pd O
		ppb	ppb	ppb
X		0.000	0.022	1.859
%RSD		0.000	35.520	167.300
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.085	87.517%	0.325
%RSD		21.620	3.701	1.092
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		1.040	40.690	0.000
%RSD		3.445	1.514	0.000
Run	Time	165Ho	182W	205Tl
		ppb	ppb	ppb
X		0.000	0.164	0.176
%RSD		0.000	1.291	2.811
Run	Time	208Pb	209Bi	
		ppb	ppb	
X		3.015	73.743%	
%RSD		1.098	2.947	

L8K1R 10/20/2010 21:57:56 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		66.509%	2.068	23.660
%RSD		1.150	3.415	2.723
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		2296.000	M 198600.000	M 32600.000
%RSD		3.176	M 1.924	M 1.780
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		0.000	T 5163.000	TM 562200.000
%RSD		0.000	T 2.068	TM 1.873
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 76.004%	80.532%	M 1602.000
%RSD		T 1.059	3.457	M 0.311
Run	Time	51V	52Cr	53Cr
		ppb	ppb	ppb
X		106.800	M 976.200	47.870
%RSD		0.496	M 0.433	1.081
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		TM 4126.000	TM 268600.000	38.000
%RSD		TM 1.336	TM 0.468	0.938
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		M 257.600	M 2054.000	M 425.800
%RSD		M 0.035	M 1.331	M 1.523
Run	Time	72Ge	75As	77Ar
		ppb	ppb	ppb
X		78.662%	23.190	0.279
%RSD		3.926	0.484	21.790
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		2.068	M 698.000	32.120
%RSD		8.371	M 0.758	1.892
Run	Time	105Pd	107Ag	109Ag
		ppb	ppb	ppb
X		0.000	0.455	-42.790
%RSD		0.000	6.445	41.510
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.917	83.386%	33.320
%RSD		8.323	2.908	0.410
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		15.080	M 458.200	0.000
%RSD		1.317	M 0.732	0.000
Run	Time	165Ho	205Tl	208Pb
		ppb	ppb	ppb
X		0.000	0.183	46.570
%RSD		0.000	6.067	0.285
Run	Time	209Bi		
		ppb		
X		69.852%		
%RSD		1.976		

L8K1R 10/21/2010 15:29:24 QC Status: PASS (Initial: PASS)

User Pre -dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		74.780%	2.091	22.760
%RSD		1.225	0.983	1.434
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		2314.000	M 195700.000	M 32780.000
%RSD		4.522	M 2.622	M 2.117
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		0.000	T 4898.000	TM 554100.000
%RSD		0.000	T 1.501	TM 1.503
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 90.600%	88.485%	M 1580.000
%RSD		T 1.472	3.170	M 1.330
Run	Time	51V	52Cr	53Cr
		ppb	ppb	ppb
X		104.800	M 967.000	49.300
%RSD		4.213	M 0.275	11.400
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		TM 4095.000	TM 265800.000	37.820
%RSD		TM 1.365	TM 1.184	0.530
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		M 253.900	M 2032.000	M 429.500
%RSD		M 0.201	M 1.014	M 0.281
Run	Time	72Ge	75As	77Al (C)
		ppb	ppb	ppb
X		87.511%	22.610	0.261
%RSD		3.307	2.935	18.560
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		2.067	M 685.800	30.930
%RSD		6.735	M 0.858	0.345
Run	Time	105Pd	107Ag	108Mo (C)
		ppb	ppb	ppb
X		0.000	0.429	-33.950
%RSD		0.000	1.418	65.130
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.872	92.948%	32.440
%RSD		5.145	2.762	0.932
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		14.390	M 461.600	0.000
%RSD		4.398	M 1.360	0.000
Run	Time	165Ho	182W	205Tl
		ppb	ppb	ppb
X		0.000	7.489	0.511
%RSD		0.000	0.956	3.099
Run	Time	208Pb	209Bi	
		ppb	ppb	
X		45.870	75.547%	
%RSD		0.888	1.479	

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA-H1 **Units:** ppb

Element	Wavelength	Reporting Limit	IDL	Date of IDL
Mercury	253.700	0.2	0.10	01/08/10

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA-H4 **Units:** ppb

Element	Wavelength	Reporting Limit	IDL	Date of IDL
Mercury	253.700	0.2	0.10	11/20/09

TestAmerica North Canton

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPMS **Units:** ppb

Element	Mass	Reporting Limit	IDL	Date of IDL
Antimony	121	2.0	0.038	07/16/10
Arsenic	75	5.0	0.20	07/16/10
Barium	137	1.0	0.058	07/16/10
Beryllium	9	1.0	0.0076	07/16/10
Cadmium	111	1.0	0.0074	07/16/10
Chromium	52	2.0	0.12	07/16/10
Cobalt	59	1.0	0.0066	07/16/10
Copper	65	2.0	0.29	07/16/10
Iron	56	50.0	3.2	07/16/10
Lead	208	1.0	0.017	07/16/10
Manganese	55	1.0	0.39	07/16/10
Molybdenum	95	2.0	0.34	07/16/10
Nickel	60	1.0	0.33	07/16/10
Selenium	78	5.0	0.54	07/16/10
Silver	107	1.0	0.0048	07/16/10
Thallium	205	1.0	0.10	07/16/10
Vanadium	51	5.0	0.24	07/16/10
Zinc	66	20.0	8.0	07/16/10

Batch Number: **0291016**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/18/10 08:00 Prep End Date: 10/18/10 16:00
Due Date: 10/22/10

Lot	Work Order			ICP Weight	ICPMS Weight	Hg Weight
A0J180000 Water	L8L7H	B	Due Date: SDG:	50 mL	50 mL	100 mL
A0J180000 Water	L8L7H	C	Due Date: SDG:	50 mL	50 mL	100 mL
A0J150408 Water	L8HWM Dissolved		Due Date: 10/22/10 SDG:	50 mL		
A0J150408 Water	L8HWM Dissolved	S *spike	Due Date: 10/22/10 SDG:	50 mL		
A0J150408 Water	L8HWM Dissolved	D *spike	Due Date: 10/22/10 SDG:	50 mL		
A0J150408 Water	L8HWM Total		Due Date: 10/22/10 SDG:	50 mL	50 mL	100 mL
A0J150408 Water	L8HWM Total	S	Due Date: 10/22/10 SDG:	50 mL	50 mL	100 mL
A0J150408 Water	L8HWM Total	D	Due Date: 10/22/10 SDG:	50 mL	50 mL	100 mL
A0J150599 Water	L8K18 Total		Due Date: 10/27/10 SDG:	50 mL	50 mL	100 mL
A0J150596 Water	L8K0F Total		Due Date: 10/29/10 SDG:	50 mL	50 mL	100 mL
A0J150598 Water	L8K1C Total		Due Date: 10/29/10 SDG:		50 mL	100 mL
A0J150598 Water	L8K1Q Total		Due Date: 10/29/10 SDG:		50 mL	100 mL
A0J150611 Water	L8K33 Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K35 Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K36 Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K37 Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K38 Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4A Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4A Total		Due Date: 10/29/10 SDG: 0J15611	50 mL	50 mL	100 mL
A0J150611 Water	L8K4D Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4E Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4G Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		

Batch Number: **0291016**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/18/10 08:00 Prep End Date: 10/18/10 16:00
Due Date: 10/22/10

Lot	Work Order			ICP Weight	ICPMS Weight	Hg Weight
A0J150611 Water	L8K4H Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4J Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4K Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4L Dissolved		Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4L Dissolved	S	Due Date: 10/29/10 SDG: 0J15611	50 mL		
A0J150611 Water	L8K4L Dissolved	D	Due Date: 10/29/10 SDG: 0J15611	50 mL		

LEVEL 2

BLANK AND CHECK STANDARD ON BATCH	X
MS/MSD AND PDS ON BATCH	X
CORRECT SPIKES ADDED	X
SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG	X

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

Unless otherwise noted, final volumes are as follows: Soils - 100 mL. Waters - ICP and ICPMS - 50 mL, Hg - 100 mL.

Low Level Hg: final volumes are 40 mL.

ICP ELEMENTS WITHIN THE BATCH:

AG AL AS BA BE CA CD CO CR CU FE KX MG MN NA NI PB SB SE VX ZN

ICPMS ELEMENTS WITHIN THE BATCH:

AG AS BA BE CD CO CR CU FE MN MO NI PB SB SE SN TL VX ZN

Matrix Spike Information:

L8K4L	ICP-1

Matrix Spike Information:

L8HWM	ICP-1	ICP-2A	Hg	Ag	ICPMS-1	ICPMS-2

Check Sample Information:

L8L7H	ICP-1	ICP-2A	Hg	Ag	ICPMS-1	ICPMS-2

Prep Method(s): SW846 3005A, SW846 7470A

Batch Number: 0292022

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/19/10 08:00 Prep End Date: 10/19/10 16:00
Due Date: 10/28/10

Lot	Work Order			ICP Weight	ICPMS Weight	Hg Weight
A0J190000 Solid	L8NTR	B	Due Date: SDG:	1.00 g	1.00 g	0.60 g
A0J190000 Solid	L8NTR	C	Due Date: SDG:	1.00 g	1.00 g	0.60 g
A0J140582 Solid	L8HCD Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HCD Total	S	Due Date: 10/28/10 SDG:			0.60 g
A0J140582 Solid	L8HCD Total	D	Due Date: 10/28/10 SDG:			0.60 g
A0J140582 Solid	L8HCV Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HC0 Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HC3 Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HC8 Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDA Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDE Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDF Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDG Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDH Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J140582 Solid	L8HDJ Total		Due Date: 10/28/10 SDG:		1.00 g	0.60 g
A0J150461 Solid	L8JDH Total		Due Date: 10/29/10 SDG:	1.00 g		
A0J150463 Solid	L8JMN Total		Due Date: 10/29/10 SDG:	1.00 g	1.00 g	
A0J150463 Solid	L8JMN Total	S	Due Date: 10/29/10 SDG:	1.00 g	1.00 g	
A0J150463 Solid	L8JMN Total	D	Due Date: 10/29/10 SDG:	1.00 g	1.00 g	
A0J150463 Solid	L8JMR Total		Due Date: 10/29/10 SDG:	1.00 g	1.00 g	
A0J150463 Solid	L8JMV Total		Due Date: 10/29/10 SDG:	1.00 g	1.00 g	
A0J150463 Solid	L8JM0 Total		Due Date: 10/29/10 SDG:	1.00 g	1.00 g	

Batch Number: **0292022**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Lisa McGall (e-Signature)

Prep Date: 10/19/10 08:00 Prep End Date: 10/19/10 16:00
Due Date: 10/28/10

Lot	Work Order		ICP Weight	ICPMS Weight	Hg Weight
A0J150598 Solid	L8K1R Total	Due Date: 10/29/10 SDG:		1.00 g	0.60 g
A0J150612 Solid	L8K4M Total	Due Date: 10/29/10 SDG:		1.00 g	0.60 g
A0J150612 Solid	L8K4Q Total	Due Date: 10/29/10 SDG:		1.00 g	0.60 g

LEVEL 2

BLANK AND CHECK STANDARD ON BATCH	X
MS/MSD AND PDS ON BATCH	X
CORRECT SPIKES ADDED	X
SPIKING SOLUTIONS DOCUMENTED ON BATCH LOG	X

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

Unless otherwise noted, final volumes are as follows: Soils - 100 mL. Waters - ICP and ICPMS - 50 mL, Hg - 100 mL.

Low Level Hg: final volumes are 40 mL.

ICP ELEMENTS WITHIN THE BATCH:

AG AS BA BE CD CR CU NI PB SE VX ZN

ICPMS ELEMENTS WITHIN THE BATCH:

AG AS BA BE CD CO CR CU FE MN MO NI PB SB SE TL VX ZN

Matrix Spike Information:

L8JMN ~~ICP-1~~ ~~Ag~~ ICPMS-1 ICPMS-2

Matrix Spike Information:

L8HCD Hg

10/19/10 KW

Check Sample Information:

L8NTR ~~ICP-1~~ Hg ~~Ag~~ ICPMS-1 ICPMS-2

Prep Method(s): SW846 3050B, SW846 7471A

Icpms used for ICP due to special requirement

: Instrument Upload Run Log - Page 1 :
: Started Tue Oct 26 05:04:03 2010 by TOTHR :
: Data File: UPL$CAN_DATA_ROOT:<LHG>HG11025B.PRN;1 :

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1REP1	1	25-OCT-2010	12:54:34			H1
2	STD2REP1	1	25-OCT-2010	12:55:40			H1
3	STD3REP1	1	25-OCT-2010	12:57:37			H1
4	STD4REP1	1	25-OCT-2010	12:58:44			H1
5	STD5REP1	1	25-OCT-2010	12:59:51			H1
6	STD6REP1	1	25-OCT-2010	13:01:01			H1
7	CK5ICV	1	25-OCT-2010	13:03:14			H1
8	CK4ICB	1	25-OCT-2010	13:04:20			H1
9	CRA/L8TL0	1	25-OCT-2010	13:05:36	0299039	A0J210404	H1
10	CK2CCV	1	25-OCT-2010	13:06:45			H1
11	CK1CCB	1	25-OCT-2010	13:08:22			H1
12	L8QN3B	1	25-OCT-2010	13:09:40	0293031	A0J200000	H1
13	L8QN3C	1	25-OCT-2010	13:10:44	0293031	A0J200000	H1
14	L7VQF	1	25-OCT-2010	13:12:00	0293031	C0J010558	H1
15	L7VQFS	1	25-OCT-2010	13:13:20	0293031	C0J010558	H1
16	L7VQFD	1	25-OCT-2010	13:14:27	0293031	C0J010558	H1
17	L7VPC	1	25-OCT-2010	13:15:32	0293031	C0J010553	H1
18	L7VPCS	1	25-OCT-2010	13:16:39	0293031	C0J010553	H1
19	L7VPCD	1	25-OCT-2010	13:17:46	0293031	C0J010553	H1
20	L7VQP	1	25-OCT-2010	13:19:12	0293031	C0J010558	H1
21	L7VPM	1	25-OCT-2010	13:20:19	0293031	C0J010553	H1
22	CK2CCV	1	25-OCT-2010	13:21:56			H1
23	CK1CCB	1	25-OCT-2010	13:23:01			H1
24	L74DD	1	25-OCT-2010	13:24:07	0293031	C0J010558	H1
25	L7VPE	1	25-OCT-2010	13:25:22	0293031	C0J010553	H1
26	L7VQW	1	25-OCT-2010	13:26:26	0293031	C0J010558	H1
27	L7VQV	1	25-OCT-2010	13:28:02	0293031	C0J010558	H1
28	L7VP3	1	25-OCT-2010	13:29:11	0293031	C0J010558	H1
29	L7VQN	1	25-OCT-2010	13:30:17	0293031	C0J010558	H1
30	L74DC	1	25-OCT-2010	13:31:22	0293031	C0J010553	H1
31	L7VN9	1	25-OCT-2010	13:32:27	0293031	C0J010553	H1
32	L7VPQ	1	25-OCT-2010	13:33:32	0293031	C0J010553	H1
33	L7VPP	1	25-OCT-2010	13:34:40	0293031	C0J010553	H1
34	CK2CCV	1	25-OCT-2010	13:35:51			H1
35	CK1CCB	1	25-OCT-2010	13:36:58			H1
36	L7VPG	1	25-OCT-2010	13:38:13	0293031	C0J010553	H1
37	L7VQX	1	25-OCT-2010	13:39:25	0293031	C0J010558	H1
38	L7VQJ	1	25-OCT-2010	13:40:39	0293031	C0J010558	H1
39	L7VPJ	1	25-OCT-2010	13:41:49	0293031	C0J010553	H1
40	L8QN1B	1	25-OCT-2010	13:43:13	0293030	A0J200000	H1
41	L8QN1C	1	25-OCT-2010	13:44:28	0293030	A0J200000	H1
42	L7VNF	1	25-OCT-2010	13:45:38	0293030	C0J010552	H1
43	L7VNFS	1	25-OCT-2010	13:46:45	0293030	C0J010552	H1
44	L7VNFD	1	25-OCT-2010	13:48:23	0293030	C0J010552	H1

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	L7VQ7	1	25-OCT-2010	13:49:28	0293030	C0J010559	H1
46	CK2CCV	1	25-OCT-2010	13:50:38			H1
47	CK1CCB	1	25-OCT-2010	13:51:46			H1
48	L7VQ7S	1	25-OCT-2010	13:53:01	0293030	C0J010559	H1
49	L7VQ7D	1	25-OCT-2010	13:54:08	0293030	C0J010559	H1
50	L74DA	1	25-OCT-2010	13:55:17	0293030	C0J010552	H1
51	L7VNR	1	25-OCT-2010	13:56:24	0293030	C0J010552	H1
52	L7VN0	1	25-OCT-2010	13:57:35	0293030	C0J010552	H1
53	L7VQ9	1	25-OCT-2010	13:58:45	0293030	C0J010559	H1
54	L7VNM	1	25-OCT-2010	14:00:05	0293030	C0J010552	H1
55	L7VM9	1	25-OCT-2010	14:01:12	0293030	C0J010552	H1
56	L7VNH	1	25-OCT-2010	14:02:31	0293030	C0J010552	H1
57	L74DF	1	25-OCT-2010	14:03:39	0293030	C0J010559	H1
58	CK2CCV	1	25-OCT-2010	14:05:06			H1
59	CK1CCB	1	25-OCT-2010	14:06:14			H1
60	L7VRL	1	25-OCT-2010	14:07:29	0293030	C0J010559	H1
61	L7VRT	1	25-OCT-2010	14:08:46	0293030	C0J010559	H1
62	L7VRD	1	25-OCT-2010	14:10:03	0293030	C0J010559	H1
63	L7VRG	1	25-OCT-2010	14:11:14	0293030	C0J010559	H1
64	L7VN2	1	25-OCT-2010	14:12:19	0293030	C0J010552	H1
65	L7VRP	1	25-OCT-2010	14:13:25	0293030	C0J010559	H1
66	L7VNV	1	25-OCT-2010	14:14:32	0293030	C0J010552	H1
67	L7VQ5	1	25-OCT-2010	14:15:49	0293030	C0J010559	H1
68	L8L77B	1	25-OCT-2010	14:17:05	0291027	A0J180000	H1
69	L8L77C	1	25-OCT-2010	14:18:11	0291027	A0J180000	H1
70	CK2CCV	1	25-OCT-2010	14:19:16			H1
71	CK1CCB	1	25-OCT-2010	14:20:21			H1
72	L8G34	1	25-OCT-2010	14:21:25	0291027	A0J140555	H1
73	L8G3MX	1	25-OCT-2010	14:22:44	0291027	A0J140555	H1
74	L8G3MS	1	25-OCT-2010	14:24:06	0291027	A0J140555	H1
75	L8G3Q	1	25-OCT-2010	14:25:16	0291027	A0J140555	H1
76	L8G3M	1	25-OCT-2010	14:26:43	0291027	A0J140555	H1
77	L8G3X	1	25-OCT-2010	14:27:52	0291027	A0J140555	H1
78	L8G3P	1	25-OCT-2010	14:28:58	0291027	A0J140555	H1
79	L8G3R	1	25-OCT-2010	14:30:14	0291027	A0J140555	H1
80	L8G31	1	25-OCT-2010	14:31:20	0291027	A0J140555	H1
81	L8G35	1	25-OCT-2010	14:32:26	0291027	A0J140555	H1
82	CK2CCV	1	25-OCT-2010	14:33:34			H1
83	CK1CCB	1	25-OCT-2010	14:34:39			H1
84	L8G4D	1	25-OCT-2010	14:36:14	0291027	A0J140555	H1
85	L8G4A	1	25-OCT-2010	14:37:32	0291027	A0J140555	H1
86	L8G3T	1	25-OCT-2010	14:38:51	0291027	A0J140555	H1
87	L8G38	1	25-OCT-2010	14:40:08	0291027	A0J140555	H1
88	L8G37	1	25-OCT-2010	14:41:57	0291027	A0J140555	H1

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	L8G36	1	25-OCT-2010	14:43:14	0291027	A0J140555	H1
90	L8G3W	1	25-OCT-2010	14:44:31	0291027	A0J140555	H1
91	L8G30	1	25-OCT-2010	14:45:38	0291027	A0J140555	H1
92	L8G33	1	25-OCT-2010	14:46:44	0291027	A0J140555	H1
93	L8G3V	1	25-OCT-2010	14:48:04	0291027	A0J140555	H1
94	CK2CCV	1	25-OCT-2010	14:49:16			H1
95	CK1CCB	1	25-OCT-2010	14:50:30			H1
96	L8G4V	1	25-OCT-2010	14:51:35	0291027	A0J140555	H1
97	L8G4E	1	25-OCT-2010	14:53:02	0291027	A0J140555	H1
98	L8NTRB	1	25-OCT-2010	14:54:14	0292022	A0J190000	H1
99	L8NTRC	1	25-OCT-2010	14:55:25	0292022	A0J190000	H1
100	L8HCD	1	25-OCT-2010	14:56:36	0292022	A0J140582	H1
101	L8HCDS	1	25-OCT-2010	14:57:44	0292022	A0J140582	H1
102	L8HCDD	1	25-OCT-2010	14:59:01	0292022	A0J140582	H1
103	L8HC8	1	25-OCT-2010	15:00:07	0292022	A0J140582	H1
104	L8HC3	1	25-OCT-2010	15:01:15	0292022	A0J140582	H1
105	L8K4Q	1	25-OCT-2010	15:02:43	0292022	A0J150612	H1
106	CK2CCV	1	25-OCT-2010	15:03:54			H1
107	CK1CCB	1	25-OCT-2010	15:05:09			H1
108	L8K4M	1	25-OCT-2010	15:06:15	0292022	A0J150612	H1
109	L8HDH	1	25-OCT-2010	15:07:25	0292022	A0J140582	H1
110	L8HDG	1	25-OCT-2010	15:08:31	0292022	A0J140582	H1
111	L8HCV	1	25-OCT-2010	15:09:40	0292022	A0J140582	H1
112	L8HDE	1	25-OCT-2010	15:11:37	0292022	A0J140582	H1
113	L8HDF	1	25-OCT-2010	15:12:45	0292022	A0J140582	H1
114	L8K1R MRC-SED-1	1	25-OCT-2010	15:13:54	0292022	A0J150598	H1
115	L8HDJ	1	25-OCT-2010	15:15:14	0292022	A0J140582	H1
116	CK2CCV	1	25-OCT-2010	15:16:21			H1
117	CK1CCB	1	25-OCT-2010	15:17:26			H1
118	CK2CCV	1	25-OCT-2010	16:46:31			H1
119	CK1CCB	1	25-OCT-2010	16:47:36			H1
120	L8WW1B	1	25-OCT-2010	16:48:53	0295025	A0J220000	H1
121	L8WW1C	1	25-OCT-2010	16:50:02	0295025	A0J220000	H1
122	L8WMX	1	25-OCT-2010	16:51:12	0295025	A0J210613	H1
123	L8WMXS	1	25-OCT-2010	16:52:17	0295025	A0J210613	H1
124	L8WMXD	1	25-OCT-2010	16:53:22	0295025	A0J210613	H1
125	L8WN1	1	25-OCT-2010	16:55:03	0295025	A0J210613	H1
126	L8V6P	1	25-OCT-2010	16:56:13	0295025	A0J210560	H1
127	L8THAB	1	25-OCT-2010	16:57:18	0294023	A0J210000	H1
128	L8THAC	1	25-OCT-2010	16:58:25	0294023	A0J210000	H1
129	L8NEA	1	25-OCT-2010	16:59:31	0294023	A0J180483	H1
130	CK2CCV	1	25-OCT-2010	17:00:48			H1
131	CK1CCB	1	25-OCT-2010	17:02:02			H1
132	L8NEAS	1	25-OCT-2010	17:03:19	0294023	A0J180483	H1

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
133	L8NEAD	1	25-OCT-2010	17:04:26	0294023	A0J180483	H1
134	L8NEQ	1	25-OCT-2010	17:05:33	0294023	A0J180483	H1
135	L8NEP	1	25-OCT-2010	17:06:42	0294023	A0J180483	H1
136	L8M08	1	25-OCT-2010	17:07:57	0294023	0J18456	H1
137	L8NER	1	25-OCT-2010	17:09:17	0294023	A0J180483	H1
138	L8NEE	1	25-OCT-2010	17:10:23	0294023	A0J180483	H1
139	L8M07	1	25-OCT-2010	17:11:28	0294023	0J18456	H1
140	L8NEK	1	25-OCT-2010	17:12:45	0294023	A0J180483	H1
141	L8NEM	1	25-OCT-2010	17:13:56	0294023	A0J180483	H1
142	CK2CCV	1	25-OCT-2010	17:15:05			H1
143	CK1CCB	1	25-OCT-2010	17:16:19			H1
144	L8NEG	1	25-OCT-2010	17:17:34	0294023	A0J180483	H1
145	L8NEW	1	25-OCT-2010	17:18:45	0294023	A0J180483	H1
146	L8NEV	1	25-OCT-2010	17:19:50	0294023	A0J180483	H1
147	L8NEJ	1	25-OCT-2010	17:21:05	0294023	A0J180483	H1
148	L8M02	1	25-OCT-2010	17:22:21	0294023	0J18456	H1
149	L8NEX	1	25-OCT-2010	17:23:26	0294023	A0J180483	H1
150	L8NET	1	25-OCT-2010	17:24:32	0294023	A0J180483	H1
151	L8NEF	1	25-OCT-2010	17:25:43	0294023	A0J180483	H1
152	L8NEH	1	25-OCT-2010	17:26:50	0294023	A0J180483	H1
153	L8M1N	1	25-OCT-2010	17:27:56	0294023	0J18456	H1
154	CK2CCV	1	25-OCT-2010	17:29:31			H1
155	CK1CCB	1	25-OCT-2010	17:30:46			H1
156	L8FEEB	1	25-OCT-2010	17:32:03	0287023	A0J140000	H1
157	L8FEEC	1	25-OCT-2010	17:33:10	0287023	A0J140000	H1
158	L8CP9	1	25-OCT-2010	17:34:16	0287023	C0J12541	H1
159	L8CP9S	1	25-OCT-2010	17:35:22	0287023	C0J12541	H1
160	L8CP9D	1	25-OCT-2010	17:36:30	0287023	C0J12541	H1
161	L8CQ1	1	25-OCT-2010	17:37:37	0287023	C0J12541	H1
162	L8CQ1S	1	25-OCT-2010	17:38:43	0287023	C0J12541	H1
163	L8CQ1D	1	25-OCT-2010	17:39:49	0287023	C0J12541	H1
164	L8CQR	1	25-OCT-2010	17:40:55	0287023	C0J12541	H1
165	L8CP7	1	25-OCT-2010	17:42:16	0287023	C0J12541	H1
166	CK2CCV	1	25-OCT-2010	17:43:26			H1
167	CK1CCB	1	25-OCT-2010	17:44:31			H1
168	L8CQE	1	25-OCT-2010	17:45:36	0287023	C0J12541	H1
169	L8CQC	1	25-OCT-2010	17:46:46	0287023	C0J12541	H1
170	L8CQD	1	25-OCT-2010	17:47:58	0287023	C0J12541	H1
171	L8CP5	1	25-OCT-2010	17:49:14	0287023	C0J12541	H1
172	L8CQH	1	25-OCT-2010	17:50:20	0287023	C0J12541	H1
173	L8CQP	1	25-OCT-2010	17:51:25	0287023	C0J12541	H1
174	L8CQV	1	25-OCT-2010	17:52:31	0287023	C0J12541	H1
175	L8CQ4	1	25-OCT-2010	17:53:40	0287023	C0J12541	H1
176	L8CPK	1	25-OCT-2010	17:54:48	0287023	C0J12541	H1

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
177	L8CQT	1	25-OCT-2010	17:55:53	0287023	C0J12541	H1
178	CK2CCV	1	25-OCT-2010	17:57:12			H1
179	CK1CCB	1	25-OCT-2010	17:58:29			H1
180	L8CQL	1	25-OCT-2010	18:00:09	0287023	C0J12541	H1
181	L8CQG	1	25-OCT-2010	18:01:37	0287023	C0J12541	H1
182	L8CQJ	1	25-OCT-2010	18:02:45	0287023	C0J12541	H1
183	L8CQ6	1	25-OCT-2010	18:03:52	0287023	C0J12541	H1
184	L8CQ5	1	25-OCT-2010	18:05:00	0287023	C0J12541	H1
185	L8CQM	1	25-OCT-2010	18:06:16	0287023	C0J12541	H1
186	L8WW3B	1	25-OCT-2010	18:07:23	0295026	A0J220000	H1
187	L8WW3C	1	25-OCT-2010	18:08:31	0295026	A0J220000	H1
188	L8WKK	1	25-OCT-2010	18:09:39	0295026	A0J210601	H1
189	L8WKKS	1	25-OCT-2010	18:10:58	0295026	A0J210601	H1
190	CK2CCV	1	25-OCT-2010	18:12:25			H1
191	CK1CCB	1	25-OCT-2010	18:13:29			H1
192	L8WKKD	1	25-OCT-2010	18:14:34	0295026	A0J210601	H1
193	L8WJ9	1	25-OCT-2010	18:15:50	0295026	A0J210601	H1
194	L8WJ9S	1	25-OCT-2010	18:16:58	0295026	A0J210601	H1
195	L8WJ9D	1	25-OCT-2010	18:18:06	0295026	A0J210601	H1
196	L8WMG	1	25-OCT-2010	18:19:13	0295026	A0J210614	H1
197	L8WMP	1	25-OCT-2010	18:20:44	0295026	A0J210614	H1
198	L8WKE	1	25-OCT-2010	18:21:55	0295026	A0J210601	H1
199	L8WKT	1	25-OCT-2010	18:23:06	0295026	A0J210601	H1
200	L8WKP	1	25-OCT-2010	18:24:23	0295026	A0J210601	H1
201	L8WMH	1	25-OCT-2010	18:25:39	0295026	A0J210614	H1
202	CK2CCV	1	25-OCT-2010	18:26:45			H1
203	CK1CCB	1	25-OCT-2010	18:27:50			H1
204	L8WMD	1	25-OCT-2010	18:29:06	0295026	A0J210614	H1
205	L8WJ7	1	25-OCT-2010	18:30:12	0295026	A0J210601	H1
206	L8WKD	1	25-OCT-2010	18:31:18	0295026	A0J210601	H1
207	L8WMK	1	25-OCT-2010	18:32:47	0295026	A0J210614	H1
208	L8WKQ	1	25-OCT-2010	18:34:37	0295026	A0J210601	H1
209	L8WMC	1	25-OCT-2010	18:35:44	0295026	A0J210614	H1
210	L8WKC	1	25-OCT-2010	18:36:53	0295026	A0J210601	H1
211	L8WKR	1	25-OCT-2010	18:38:00	0295026	A0J210601	H1
212	L8WKN	1	25-OCT-2010	18:39:19	0295026	A0J210601	H1
213	L8WKA	1	25-OCT-2010	18:40:26	0295026	A0J210601	H1
214	CK2CCV	1	25-OCT-2010	18:41:34			H1
215	CK1CCB	1	25-OCT-2010	18:42:39			H1
216	L8WKG	1	25-OCT-2010	18:43:45	0295026	A0J210601	H1
217	L8WM1	1	25-OCT-2010	18:44:54	0295026	A0J210614	H1
218	L8HDA	1	25-OCT-2010	18:46:16	0292022	A0J140582	H1
219	L8HC0	1	25-OCT-2010	18:47:22	0292022	A0J140582	H1
220	L7VNR	2	25-OCT-2010	18:48:29	0293030	C0J010552	H1

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:       Instrument Upload                                  Run Log - Page  6 :
:       Started Tue Oct 26 04:54:22 2010 by TOTHR                             :
:       Data File: UPL$CAN_DATA_ROOT:<LHG>HG11025B.PRN;1                      :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
221	L7VN2	5	25-OCT-2010	18:49:58	0293030	C0J010552	H1
222	CK2CCV	1	25-OCT-2010	18:51:06			H1
223	CK1CCB	1	25-OCT-2010	18:52:11			H1

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:       Instrument Upload                                    Run Log - Page  1 :
:       Started Tue Oct 19 07:04:27 2010 by TOTHR                              :
:       Data File: UPL$CAN_DATA_ROOT:<LHG>HG41018A.PRN;1                       :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1			19-OCT-2010				H4
2	STD01REP1	1	18-OCT-2010	10:57:36			H4
3	STD02REP1	1	18-OCT-2010	10:58:59			H4
4	STD03REP1	1	18-OCT-2010	11:00:26			H4
5	STD04REP1	1	18-OCT-2010	11:01:51			H4
6	STD05REP1	1	18-OCT-2010	11:03:16			H4
7	STD06REP1	1	18-OCT-2010	11:04:56			H4
8	CK2ICV	1	18-OCT-2010	11:06:41			H4
9	CK3ICB	1	18-OCT-2010	11:08:25			H4
10	CK4CRA\MRL	1	18-OCT-2010	11:10:00			H4
11	CK4CRA\MRL	1	18-OCT-2010	11:13:58			H4
12	CK6CCV	1	18-OCT-2010	11:15:42			H4
13	CK5CCB	1	18-OCT-2010	11:17:18			H4
14	L8C7KBT	1	18-OCT-2010	11:18:43			H4
15	L8HP4BT	1	18-OCT-2010	11:20:37			H4
16	L8HP4CT	1	18-OCT-2010	11:22:44			H4
17	L79E5T	1	18-OCT-2010	11:24:38			H4
18	L79E5TS	1	18-OCT-2010	11:26:05			H4
19	L79E5TD	1	18-OCT-2010	11:27:38			H4
20	L79FLT	1	18-OCT-2010	11:29:42			H4
21	L79FQT	1	18-OCT-2010	11:31:10			H4
22	L79FPT	1	18-OCT-2010	11:34:15			H4
23	L79FMT	1	18-OCT-2010	11:35:51			H4
24	CK6CCV	1	18-OCT-2010	11:37:14			H4
25	CK5CCB	1	18-OCT-2010	11:38:49			H4
26	L79FRT	1	18-OCT-2010	11:40:13			H4
27	L79E8T	1	18-OCT-2010	11:41:42			H4
28	L79FTT	1	18-OCT-2010	11:43:08			H4
29	L79FAT	1	18-OCT-2010	11:44:46			H4
30	L79FGT	1	18-OCT-2010	11:46:41			H4
31	L79FFT	1	18-OCT-2010	11:48:29			H4
32	L79FDT	1	18-OCT-2010	11:49:52			H4
33	L79FKT	1	18-OCT-2010	11:51:20			H4
34	L8C7EBT	1	18-OCT-2010	11:52:58			H4
35	L8HP2BT	1	18-OCT-2010	11:54:23			H4
36	CK6CCV	1	18-OCT-2010	11:55:47			H4
37	CK5CCB	1	18-OCT-2010	11:57:22			H4
38	L8HP2CT	1	18-OCT-2010	11:58:45			H4
39	L79FCT	1	18-OCT-2010	12:00:22			H4
40	L79FCTS	1	18-OCT-2010	12:01:48			H4
41	L79FCTD	1	18-OCT-2010	12:03:33			H4
42	L79FJT	1	18-OCT-2010	12:05:29			H4
43	L79FHT	1	18-OCT-2010	12:07:26			H4
44	CK6CCV	1	18-OCT-2010	12:09:00			H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	CK5CCB	1	18-OCT-2010	12:10:43			H4
46	CK6CCV	1	18-OCT-2010	12:16:28			H4
47	CK5CCB	1	18-OCT-2010	12:18:02			H4
48	L79FCTS	1	18-OCT-2010	12:20:05			H4
49	L79FCTD	1	18-OCT-2010	12:21:38			H4
50	CK6CCV	1	18-OCT-2010	12:23:13			H4
51	CK5CCB	1	18-OCT-2010	12:24:48			H4
52	CK6CCV	1	18-OCT-2010	12:28:52			H4
53	CK5CCB	1	18-OCT-2010	12:30:19			H4
54	L78X4B	1	18-OCT-2010	12:32:17	0284021	A0J110000	H4
55	L78X4C	1	18-OCT-2010	12:33:45	0284021	A0J110000	H4
56	L77DK	1	18-OCT-2010	12:35:15	0284021	0J08577	H4
57	L77DKS	1	18-OCT-2010	12:36:39	0284021	0J08577	H4
58	L77DKD	1	18-OCT-2010	12:38:08	0284021	0J08577	H4
59	L77EJ	1	18-OCT-2010	12:39:35	0284021	0J08577	H4
60	L77CA	1	18-OCT-2010	12:41:00	0284021	0J08577	H4
61	L77EF	1	18-OCT-2010	12:42:29	0284021	0J08577	H4
62	L78KV	1	18-OCT-2010	12:44:12	0284021	A0J090467	H4
63	L77CM	1	18-OCT-2010	12:45:37	0284021	0J08577	H4
64	CK6CCV	1	18-OCT-2010	12:47:11			H4
65	CK5CCB	1	18-OCT-2010	12:50:04			H4
66	L77CK	1	18-OCT-2010	12:51:42	0284021	0J08577	H4
67	L77D1	1	18-OCT-2010	12:53:08	0284021	0J08577	H4
68	L77C3	1	18-OCT-2010	12:54:32	0284021	0J08577	H4
69	L77DX	1	18-OCT-2010	12:56:36	0284021	0J08577	H4
70	L77CW	1	18-OCT-2010	12:58:27	0284021	0J08577	H4
71	L796CB	1	18-OCT-2010	12:59:51	0285012	A0J120000	H4
72	L796CC	1	18-OCT-2010	13:01:26	0285012	A0J120000	H4
73	L786G	1	18-OCT-2010	13:03:07	0285012	A0J110407	H4
74	L786GS	1	18-OCT-2010	13:04:34	0285012	A0J110407	H4
75	L786GD	1	18-OCT-2010	13:06:01	0285012	A0J110407	H4
76	CK6CCV	1	18-OCT-2010	13:07:30			H4
77	CK5CCB	1	18-OCT-2010	13:09:13			H4
78	L786GF	1	18-OCT-2010	13:10:37	0285012	A0J110407	H4
79	L78PR	1	18-OCT-2010	13:12:06	0285012	C0J09473	H4
80	L784X	1	18-OCT-2010	13:13:41	0285012	A0J110405	H4
81	L8HQDB	1	18-OCT-2010	13:15:59	0288018	A0J150000	H4
82	L8HQDC	1	18-OCT-2010	13:17:43	0288018	A0J150000	H4
83	L8FH1	1	18-OCT-2010	13:19:19	0288018	A0J140404	H4
84	L8FH1S	1	18-OCT-2010	13:21:06	0288018	A0J140404	H4
85	L8FH1D	1	18-OCT-2010	13:22:45	0288018	A0J140404	H4
86	L8FV0	1	18-OCT-2010	13:24:13	0288018	A0J140433	H4
87	L8G74	1	18-OCT-2010	13:25:53	0288018	A0J140568	H4
88	CK6CCV	1	18-OCT-2010	13:27:50			H4

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	CK5CCB	1	18-OCT-2010	13:29:15			H4
90	L8FXG	1	18-OCT-2010	13:31:01	0288018	A0J140438	H4
91	L8G8A	1	18-OCT-2010	13:33:32	0288018	A0J140568	H4
92	L8FH7	1	18-OCT-2010	13:35:09	0288018	A0J140404	H4
93	L8FH5	1	18-OCT-2010	13:36:53	0288018	A0J140404	H4
94	L8FH3	1	18-OCT-2010	13:38:22	0288018	A0J140404	H4
95	L8FQ2	1	18-OCT-2010	13:39:58	0288018	A0J140426	H4
96	L8EHN	1	18-OCT-2010	13:41:24	0287011	A0J130509	H4
97	L8FDPB	1	18-OCT-2010	13:43:01	0287013	A0J140000	H4
98	L8FDPC	1	18-OCT-2010	13:44:28	0287013	A0J140000	H4
99	L8C35	1	18-OCT-2010	13:46:03	0287013	A0J130404	H4
100	CK6CCV	1	18-OCT-2010	13:47:28			H4
101	CK5CCB	1	18-OCT-2010	13:49:23			H4
102	L8C35S	1	18-OCT-2010	13:51:18	0287013	A0J130404	H4
103	L8C35D	1	18-OCT-2010	13:53:03	0287013	A0J130404	H4
104	L8C4G	1	18-OCT-2010	13:55:28	0287013	A0J130404	H4
105	L8C4A	1	18-OCT-2010	13:57:16	0287013	A0J130404	H4
106	L8ECM	1	18-OCT-2010	13:58:41	0287013	A0J130502	H4
107	L8C4L	1	18-OCT-2010	14:00:11	0287013	A0J130404	H4
108	CK6CCV	1	18-OCT-2010	14:01:47			H4
109	CK5CCB	1	18-OCT-2010	14:03:15			H4
110	CK6CCV	1	18-OCT-2010	14:13:51			H4
111	CK5CCB	1	18-OCT-2010	14:15:26			H4
112	L786GF	1	18-OCT-2010	14:16:59	0285012	A0J110407	H4
113	L78PR	1	18-OCT-2010	14:18:23	0285012	C0J09473	H4
114	L784X	1	18-OCT-2010	14:20:09	0285012	A0J110405	H4
115	L8HQDB	1	18-OCT-2010	14:22:15	0288018	A0J150000	H4
116	L8HQDC	1	18-OCT-2010	14:24:31	0288018	A0J150000	H4
117	L8FH1	1	18-OCT-2010	14:25:59	0288018	A0J140404	H4
118	L8FH1S	1	18-OCT-2010	14:27:24	0288018	A0J140404	H4
119	L8FH1D	1	18-OCT-2010	14:29:09	0288018	A0J140404	H4
120	L8FV0	1	18-OCT-2010	14:30:36	0288018	A0J140433	H4
121	L8G74	1	18-OCT-2010	14:32:11	0288018	A0J140568	H4
122	CK6CCV	1	18-OCT-2010	14:35:47			H4
123	CK5CCB	1	18-OCT-2010	14:37:23			H4
124	L8FXG	1	18-OCT-2010	14:39:02	0288018	A0J140438	H4
125	L8G8A	1	18-OCT-2010	14:41:08	0288018	A0J140568	H4
126	L8FH7	1	18-OCT-2010	14:42:33	0288018	A0J140404	H4
127	L8FH5	1	18-OCT-2010	14:44:00	0288018	A0J140404	H4
128	L8FH3	1	18-OCT-2010	14:45:45	0288018	A0J140404	H4
129	L8FQ2	1	18-OCT-2010	14:47:11	0288018	A0J140426	H4
130	L8EHN	1	18-OCT-2010	14:48:36	0287011	A0J130509	H4
131	L8FDPB	1	18-OCT-2010	14:50:01	0287013	A0J140000	H4
132	L8FDPC	1	18-OCT-2010	14:51:36	0287013	A0J140000	H4

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
133	L8C35	1	18-OCT-2010	14:53:11	0287013	A0J130404	H4
134	CK6CCV	1	18-OCT-2010	14:55:08			H4
135	CK5CCB	1	18-OCT-2010	14:56:42			H4
136	L8C35S	1	18-OCT-2010	14:58:11	0287013	A0J130404	H4
137	L8C35D	1	18-OCT-2010	14:59:38	0287013	A0J130404	H4
138	L8C4G	1	18-OCT-2010	15:01:09	0287013	A0J130404	H4
139	L8C4A	1	18-OCT-2010	15:02:54	0287013	A0J130404	H4
140	L8ECM	1	18-OCT-2010	15:04:20	0287013	A0J130502	H4
141	L8C4L	1	18-OCT-2010	15:05:46	0287013	A0J130404	H4
142	CK6CCV	1	18-OCT-2010	15:07:11			H4
143	CK5CCB	1	18-OCT-2010	15:08:44			H4
144	CK6CCV	1	18-OCT-2010	15:15:57			H4
145	CK5CCB	1	18-OCT-2010	15:17:32			H4
146	L8HQFB	1	18-OCT-2010	15:18:58	0288019	A0J150000	H4
147	L8HQFC	1	18-OCT-2010	15:20:23	0288019	A0J150000	H4
148	L8G1MF	1	18-OCT-2010	15:22:00	0288019	A0J140549	H4
149	L8G1MFS	1	18-OCT-2010	15:23:45	0288019	A0J140549	H4
150	L8G1MFD	1	18-OCT-2010	15:25:28	0288019	A0J140549	H4
151	L8G0C	1	18-OCT-2010	15:26:53	0288019	A0J140543	H4
152	L8GNR	1	18-OCT-2010	15:28:22	0288019	A0J140516	H4
153	L8G8H	1	18-OCT-2010	15:29:47	0288019	A0J140570	H4
154	L8GDR	1	18-OCT-2010	15:31:31	0288019	A0J140488	H4
155	L8GNT	1	18-OCT-2010	15:33:01	0288019	A0J140516	H4
156	CK6CCV	1	18-OCT-2010	15:34:25			H4
157	CK5CCB	1	18-OCT-2010	15:35:59			H4
158	CK6CCV	1	18-OCT-2010	15:39:52			H4
159	CK5CCB	1	18-OCT-2010	15:41:38			H4
160	L8GDQ	1	18-OCT-2010	15:44:03	0288019	A0J140488	H4
161	L8G8L	1	18-OCT-2010	15:46:42	0288019	A0J140570	H4
162	L8HGA	1	18-OCT-2010	15:49:30	0288019	A0J140592	H4
163	L8HF7	1	18-OCT-2010	15:51:08	0288019	A0J140592	H4
164	L8G8J	1	18-OCT-2010	15:52:51	0288019	A0J140570	H4
165	L8HFT	1	18-OCT-2010	15:54:55	0288019	A0J140592	H4
166	L8G8K	1	18-OCT-2010	15:56:22	0288019	A0J140570	H4
167	L8GDE	1	18-OCT-2010	15:57:47	0288019	C0J14486	H4
168	L8HF3	1	18-OCT-2010	15:59:51	0288019	A0J140592	H4
169	L8G08F	1	18-OCT-2010	16:01:16	0288019	A0J140549	H4
170	CK6CCV	1	18-OCT-2010	16:03:15			H4
171	CK5CCB	1	18-OCT-2010	16:04:43			H4
172	L8GG5BT	1	18-OCT-2010	16:06:06	0291010	A0J140000	H4
173	L8L66BT	1	18-OCT-2010	16:07:41	0291010	A0J180000	H4
174	CK6CCV	1	18-OCT-2010	16:12:41			H4
175	CK5CCB	1	18-OCT-2010	16:14:24			H4
176	L8GDQ	1	18-OCT-2010	16:15:50	0288019	A0J140488	H4

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
177	L8G8L	1	18-OCT-2010	16:17:13	0288019	A0J140570	H4
178	L8HGA	1	18-OCT-2010	16:18:59	0288019	A0J140592	H4
179	L8HF7	1	18-OCT-2010	16:20:56	0288019	A0J140592	H4
180	L8G8J	1	18-OCT-2010	16:22:20	0288019	A0J140570	H4
181	L8HFT	1	18-OCT-2010	16:23:58	0288019	A0J140592	H4
182	L8G8K	1	18-OCT-2010	16:25:23	0288019	A0J140570	H4
183	L8GDE	1	18-OCT-2010	16:26:57	0288019	C0J14486	H4
184	L8HF3	1	18-OCT-2010	16:28:52	0288019	A0J140592	H4
185	L8G08F	1	18-OCT-2010	16:30:37	0288019	A0J140549	H4
186	CK6CCV	1	18-OCT-2010	16:32:04			H4
187	CK5CCB	1	18-OCT-2010	16:33:57			H4
188	L8GG5BT	1	18-OCT-2010	16:35:26	0291010	A0J140000	H4
189	L8L66BT	1	18-OCT-2010	16:37:11	0291010	A0J180000	H4
190	L8L66CT	1	18-OCT-2010	16:39:36	0291010	A0J180000	H4
191	L79W7T	1	18-OCT-2010	16:41:19	0291010	A0J110480	H4
192	L79W7TS	1	18-OCT-2010	16:42:43	0291010	A0J110480	H4
193	L79W7TD	1	18-OCT-2010	16:44:16	0291010	A0J110480	H4
194	L8A6AT	1	18-OCT-2010	16:45:43	0291010	A0J120483	H4
195	L8A59T	1	18-OCT-2010	16:47:22	0291010	A0J120483	H4
196	L8A6CT	1	18-OCT-2010	16:48:48	0291010	A0J120483	H4
197	L8HXTBT	1	18-OCT-2010	16:50:18	0291020	A0J150000	H4
198	CK6CCV	1	18-OCT-2010	16:52:27			H4
199	CK5CCB	1	18-OCT-2010	16:53:53			H4
200	L8L7RBT	1	18-OCT-2010	16:55:17	0291020	A0J180000	H4
201	L8L7RCT	1	18-OCT-2010	16:57:43	0291020	A0J180000	H4
202	L77DMT	1	18-OCT-2010	16:59:13	0291020	A0J080581	H4
203	L77DMTS	1	18-OCT-2010	17:00:38	0291020	A0J080581	H4
204	L77DMTD	1	18-OCT-2010	17:02:24	0291020	A0J080581	H4
205	L767RT	1	18-OCT-2010	17:04:23	0291020	A0J080565	H4
206	L8GJWBT	1	18-OCT-2010	17:05:53	0291024	A0J140000	H4
207	L8L71BT	1	18-OCT-2010	17:07:16	0291024	A0J180000	H4
208	L8L71CT	1	18-OCT-2010	17:09:21	0291024	A0J180000	H4
209	L79W4T	1	18-OCT-2010	17:10:51	0291024	A0J110480	H4
210	CK6CCV✓	1	18-OCT-2010	17:12:17			H4
211	CK5CCB	1	18-OCT-2010	17:13:46			H4
212	L79W4TS	1	18-OCT-2010	17:15:12	0291024	A0J110480	H4
213	L79W4TD	1	18-OCT-2010	17:16:37	0291024	A0J110480	H4
214	L79W6T	1	18-OCT-2010	17:18:04	0291024	A0J110480	H4
215	L79W2T	1	18-OCT-2010	17:19:28	0291024	A0J110480	H4
216	L79WWT	1	18-OCT-2010	17:21:15	0291024	A0J110480	H4
217	L8GHRBT	1	18-OCT-2010	17:22:59	0291021	A0J140000	H4
218	L8L7VBT	1	18-OCT-2010	17:25:03	0291021	A0J180000	H4
219	L8L7VCT	1	18-OCT-2010	17:26:29	0291021	A0J180000	H4
220	L8A4MT	1	18-OCT-2010	17:28:03	0291021	A0J120474	H4

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
221	L8A4MTS	1	18-OCT-2010	17:29:29	0291021	A0J120474	H4
222	CK6CCV	1	18-OCT-2010	17:30:57			H4
223	CK5CCB	1	18-OCT-2010	17:32:41			H4
224	L8A4MTD	1	18-OCT-2010	17:34:15	0291021	A0J120474	H4
225	L8L7HB	1	18-OCT-2010	17:36:00	0291016	A0J180000	H4
226	L8L7HC	1	18-OCT-2010	17:37:29	0291016	A0J180000	H4
227	L8HWM	1	18-OCT-2010	17:38:59	0291016	A0J150408	H4
228	L8HWMS	1	18-OCT-2010	17:40:59	0291016	A0J150408	H4
229	L8HWMD	1	18-OCT-2010	17:42:27	0291016	A0J150408	H4
230	L8K1C MRC-Sub-1	1	18-OCT-2010	17:43:54	0291016	A0J150598	H4
231	L8K4A	1	18-OCT-2010	17:45:39	0291016	0J15611	H4
232	L8K18	1	18-OCT-2010	17:47:14	0291016	A0J150599	H4
233	L8K1Q MSA-Sub-1	1	18-OCT-2010	17:48:44	0291016	A0J150598	H4
234	CK6CCV	1	18-OCT-2010	17:50:18			H4
235	CK5CCB	1	18-OCT-2010	17:52:11			H4
236	L8K0F	1	18-OCT-2010	17:53:36	0291016	A0J150596	H4
237	L8L7DB	1	18-OCT-2010	17:55:00	0291013	A0J180000	H4
238	L8L7DC	1	18-OCT-2010	17:56:48	0291013	A0J180000	H4
239	L8LNE	1	18-OCT-2010	17:58:24	0291013	A0J160438	H4
240	L8LNES	1	18-OCT-2010	18:00:23	0291013	A0J160438	H4
241	L8LNED	1	18-OCT-2010	18:01:52	0291013	A0J160438	H4
242	L8K24	1	18-OCT-2010	18:03:19	0291013	0J13595	H4
243	L8KAN	1	18-OCT-2010	18:05:19	0291013	A0J150554	H4
244	L8K27	1	18-OCT-2010	18:06:46	0291013	0J13595	H4
245	L8KAF	1	18-OCT-2010	18:08:12	0291013	A0J150554	H4
246	CK6CCV	1	18-OCT-2010	18:09:47			H4
247	CK5CCB	1	18-OCT-2010	18:11:20			H4
248	L8KCN	1	18-OCT-2010	18:13:06	0291013	A0J150557	H4
249	L8KA8	1	18-OCT-2010	18:14:51	0291013	A0J150557	H4
250	L8E3Q	1	18-OCT-2010	18:16:22	0291013	A0J130583	H4
251	L8L7KB	1	18-OCT-2010	18:17:59	0291017	A0J180000	H4
252	L8L7KC	1	18-OCT-2010	18:19:54	0291017	A0J180000	H4
253	L8F82	1	18-OCT-2010	18:21:31	0291017	A0J140471	H4
254	L8F82S	1	18-OCT-2010	18:22:59	0291017	A0J140471	H4
255	L8F82D	1	18-OCT-2010	18:24:27	0291017	A0J140471	H4
256	L8LLD	1	18-OCT-2010	18:25:53	0291017	A0J160430	H4
257	L8F9G	1	18-OCT-2010	18:27:19	0291017	A0J140471	H4
258	CK6CCV	1	18-OCT-2010	18:29:33			H4
259	CK5CCB	1	18-OCT-2010	18:31:00			H4
260	L8F9F	1	18-OCT-2010	18:32:47	0291017	A0J140471	H4
261	L8F9C	1	18-OCT-2010	18:34:47	0291017	A0J140471	H4
262	L8F9E	1	18-OCT-2010	18:36:44	0291017	A0J140471	H4
263	L8F9D	1	18-OCT-2010	18:38:16	0291017	A0J140471	H4
264	L8G74	20	18-OCT-2010	18:39:43	0288018	A0J140568	H4

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:       Instrument Upload                                        Run Log - Page  7 :
:       Started Tue Oct 19 07:04:27 2010 by TOTHR                                  :
:       Data File: UPL$CAN_DATA_ROOT:<LHG>HG41018A.PRN;1                           :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
265	CK6CCV	1	18-OCT-2010	18:41:32			H4
266	CK5CCB	1	18-OCT-2010	18:43:27			H4

End of Report

Instrument Upload Run Log - Page 1

Started Wed Oct 20 06:46:37 2010 by MUSSELMN

Data File: UPL$CAN_DATA_ROOT:<REP>I81019A.CSV;1

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1	1	19-OCT-2010	09:43:40			I8
2	STD2	1	19-OCT-2010	09:48:20			I8
3	STD3	1	19-OCT-2010	09:55:14			I8
4	STD4	1	19-OCT-2010	10:02:10			I8
5	ICV	1	19-OCT-2010	10:07:13			I8
6	ICB	1	19-OCT-2010	10:14:10			I8
7	CRI	1	19-OCT-2010	10:19:07			I8
8	ICSA	1	19-OCT-2010	10:24:02			I8
9	ICSAB	1	19-OCT-2010	10:28:49			I8
10	CCV	1	19-OCT-2010	10:35:46			I8
11	CCB	1	19-OCT-2010	10:42:40			I8
12	IDL1	1	19-OCT-2010	10:49:02			I8
13	IDL2	1	19-OCT-2010	10:53:59			I8
14	IDL3	1	19-OCT-2010	10:58:45			I8
15	IDL4	1	19-OCT-2010	11:03:38			I8
16	IDL5	1	19-OCT-2010	11:08:20			I8
17	IDL6	1	19-OCT-2010	11:13:09			I8
18	IDL7	1	19-OCT-2010	11:17:51			I8
19	IDL8	1	19-OCT-2010	11:22:37			I8
20	IDL9	1	19-OCT-2010	11:27:25			I8
21	IDL10	1	19-OCT-2010	11:32:09			I8
22	CCV	1	19-OCT-2010	11:36:53			I8
23	CCB	1	19-OCT-2010	11:43:49			I8
24	L8L7PB	1	19-OCT-2010	11:48:43	0291019	A0J180000	I8
25	L8L7PC	1	19-OCT-2010	11:53:31	0291019	A0J180000	I8
26	L8FGM	1	19-OCT-2010	12:00:28	0291019	A0J140402	I8
27	L8FGP	1	19-OCT-2010	12:05:28	0291019	A0J140402	I8
28	L8FGV	1	19-OCT-2010	12:10:13	0291019	A0J140402	I8
29	L8FG0	1	19-OCT-2010	12:15:06	0291019	A0J140402	I8
30	L8FG4	1	19-OCT-2010	12:19:49	0291019	A0J140402	I8
31	L8FG6	1	19-OCT-2010	12:24:35	0291019	A0J140402	I8
32	L8FG8	1	19-OCT-2010	12:29:16	0291019	A0J140402	I8
33	L8FHE	1	19-OCT-2010	12:34:04	0291019	A0J140402	I8
34	CCV	1	19-OCT-2010	12:38:45			I8
35	CCB	1	19-OCT-2010	12:45:41			I8
36	L8FHG	1	19-OCT-2010	12:50:32	0291019	A0J140402	I8
37	L8FHL	1	19-OCT-2010	12:55:29	0291019	A0J140402	I8
38	L8FHM	1	19-OCT-2010	13:00:28	0291019	A0J140402	I8
39	L8FHQ	1	19-OCT-2010	13:05:13	0291019	A0J140402	I8
40	L8FHQL	1	19-OCT-2010	13:09:56			I8
41	L8FHQX	1	19-OCT-2010	13:14:41	0291019	A0J140402	I8
42	L8FHQS	1	19-OCT-2010	13:19:26	0291019	A0J140402	I8
43	L8L7MB	1	19-OCT-2010	13:26:22	0291018	A0J180000	I8
44	L8L7MC	1	19-OCT-2010	13:31:26	0291018	A0J180000	I8

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	L8HT2	1	19-OCT-2010	13:38:25	0291018	A0J150401	I8
46	CCV	1	19-OCT-2010	13:43:24			I8
47	CCB	1	19-OCT-2010	13:50:20			I8
48	L8HT4	1	19-OCT-2010	13:55:32	0291018	A0J150401	I8
49	L8HT7	1	19-OCT-2010	14:00:29	0291018	A0J150401	I8
50	L8HT9	1	19-OCT-2010	14:05:21	0291018	A0J150401	I8
51	L8HVE	1	19-OCT-2010	14:10:06	0291018	A0J150401	I8
52	L8HVG	1	19-OCT-2010	14:14:55	0291018	A0J150401	I8
53	L8HVJ	1	19-OCT-2010	14:19:41	0291018	A0J150401	I8
54	L8HVM	1	19-OCT-2010	14:24:25	0291018	A0J150401	I8
55	L8HVML	1	19-OCT-2010	14:29:17			I8
56	L8HVMX	1	19-OCT-2010	14:33:59	0291018	A0J150401	I8
57	L8HVMS	1	19-OCT-2010	14:38:41	0291018	A0J150401	I8
58	CCV	1	19-OCT-2010	14:45:38			I8
59	CCB	1	19-OCT-2010	14:52:35			I8
60	L8HVQ	1	19-OCT-2010	14:59:32	0291018	A0J150401	I8
61	L8HVR	1	19-OCT-2010	15:04:19	0291018	A0J150401	I8
62	L8K2F	1	19-OCT-2010	15:09:17	0291018	A0J150600	I8
63	L8K2L	1	19-OCT-2010	15:14:07	0291018	A0J150600	I8
64	L8K2M	1	19-OCT-2010	15:18:52	0291018	A0J150600	I8
65	CCV	1	19-OCT-2010	15:23:45			I8
66	CCB	1	19-OCT-2010	15:30:43			I8
67	L8L7KB	1	19-OCT-2010	15:35:42	0291017	A0J180000	I8
68	L8L7KC	1	19-OCT-2010	15:40:48	0291017	A0J180000	I8
69	L8LLD	1	19-OCT-2010	15:47:47	0291017	A0J160430	I8
70	L8LL2	1	19-OCT-2010	15:53:46	0291017	A0J160436	I8
71	L8F8W	1	19-OCT-2010	15:58:45	0291017	A0J140471	I8
72	L8F82	1	19-OCT-2010	16:03:43	0291017	A0J140471	I8
73	L8F82L	1	19-OCT-2010	16:08:26			I8
74	L8F82S	1	19-OCT-2010	16:13:24	0291017	A0J140471	I8
75	L8F82D	1	19-OCT-2010	16:20:22	0291017	A0J140471	I8
76	L8F9A	1	19-OCT-2010	16:27:20	0291017	A0J140471	I8
77	CCV	1	19-OCT-2010	16:34:17			I8
78	CCB	1	19-OCT-2010	16:41:16			I8
79	L8F9C	1	19-OCT-2010	16:48:14	0291017	A0J140471	I8
80	L8F9D	1	19-OCT-2010	16:53:14	0291017	A0J140471	I8
81	L8F9E	1	19-OCT-2010	16:58:13	0291017	A0J140471	I8
82	L8F9F	1	19-OCT-2010	17:03:00	0291017	A0J140471	I8
83	L8F9G	1	19-OCT-2010	17:07:44	0291017	A0J140471	I8
84	L8L7HB	1	19-OCT-2010	17:12:30	0291016	A0J180000	I8
85	L8L7HC	1	19-OCT-2010	17:17:13	0291016	A0J180000	I8
86	L8HWM	1	19-OCT-2010	17:24:11	0291016	A0J150408	I8
87	L8HWMS	1	19-OCT-2010	17:29:14	0291016	A0J150408	I8
88	L8HWMD	1	19-OCT-2010	17:36:12	0291016	A0J150408	I8

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	CCV	1	19-OCT-2010	17:43:09			I8
90	CCB	1	19-OCT-2010	17:50:07			I8
91	L8K18	1	19-OCT-2010	17:57:06	0291016	A0J150599	I8
92	L8K0F	1	19-OCT-2010	18:02:12	0291016	A0J150596	I8
93	L8K1C MRC-SW-1		19-OCT-2010	18:07:11	0291016	A0J150598	I8
94	L8K1Q MSA-SW-1		19-OCT-2010	18:11:57	0291016	A0J150598	I8
95	L8K4A	1	19-OCT-2010	18:16:44	0291016	0J15611	I8
96	L8K4AL	1	19-OCT-2010	18:21:52			I8
97	L8HQAB	1	19-OCT-2010	18:26:37	0288016	A0J150000	I8
98	L8HQAC	1	19-OCT-2010	18:31:24	0288016	A0J150000	I8
99	L8HAHF	1	19-OCT-2010	18:38:22	0288016	A0J140579	I8
100	L8HCLF	1	19-OCT-2010	18:43:25	0288016	A0J140579	I8
101	CCV	1	19-OCT-2010	18:48:10			I8
102	CCB	1	19-OCT-2010	18:55:08			I8
103	L8HCLFS	1	19-OCT-2010	19:00:16	0288016	A0J140579	I8
104	L8HCLFD	1	19-OCT-2010	19:07:14	0288016	A0J140579	I8
105	L8HCWF	1	19-OCT-2010	19:14:13	0288016	A0J140579	I8
106	L8HC9F	1	19-OCT-2010	19:21:12	0288016	A0J140579	I8
107	L8G54	1	19-OCT-2010	19:26:03	0288016	A0J140562	I8
108	L8G54L	1	19-OCT-2010	19:30:48			I8
109	L8G58	1	19-OCT-2010	19:35:36	0288016	A0J140562	I8
110	L8G59	1	19-OCT-2010	19:40:25	0288016	A0J140562	I8
111	L8G6A	1	19-OCT-2010	19:45:15	0288016	A0J140562	I8
112	L8G6D	1	19-OCT-2010	19:50:00	0288016	A0J140562	I8
113	CCV	1	19-OCT-2010	19:54:45			I8
114	CCB	1	19-OCT-2010	20:01:43			I8
115	L8G6E	1	19-OCT-2010	20:06:45	0288016	A0J140562	I8
116	L8G6F	1	19-OCT-2010	20:11:31	0288016	A0J140562	I8
117	L8G6G	1	19-OCT-2010	20:16:33	0288016	A0J140562	I8
118	L8G6H	1	19-OCT-2010	20:21:26	0288016	A0J140562	I8
119	L8G6J	1	19-OCT-2010	20:26:12	0288016	A0J140562	I8
120	L8G6JS	1	19-OCT-2010	20:30:57	0288016	A0J140562	I8
121	L8G6JD	1	19-OCT-2010	20:37:56	0288016	A0J140562	I8
122	L8HVMA	1	19-OCT-2010	20:44:57	0291018	A0J150401	I8
123	CCV	1	19-OCT-2010	20:50:56			I8
124	CCB	1	19-OCT-2010	20:57:54			I8
125	ICSA	1	19-OCT-2010	21:02:57			I8
126	ICSAB	1	19-OCT-2010	21:07:51			I8
127	CCV	1	19-OCT-2010	21:14:50			I8
128	CCB	1	19-OCT-2010	21:21:49			I8
129	L76D1	5	19-OCT-2010	21:28:48	0286021	0J08469	I8
130	L76D1L	25	19-OCT-2010	21:33:45			I8
131	L76D2	5	19-OCT-2010	21:38:30	0286021	0J08469	I8
132	L76D6	5	19-OCT-2010	21:43:31	0286021	0J08469	I8

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:       Instrument Upload                                    Run Log - Page  1 :
:       Started Thu Oct 21 07:54:07 2010 by MUSSELMN                           :
:       Data File: UPL$CAN_DATA_ROOT:<REP>I81020A.CSV;1                        :
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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
1	STD1	1	20-OCT-2010	13:13:40			I8
2	STD2	1	20-OCT-2010	13:18:24			I8
3	STD3	1	20-OCT-2010	13:25:21			I8
4	STD4	1	20-OCT-2010	13:32:16			I8
5	STD5	1	20-OCT-2010	13:39:13			I8
6	ICV	1	20-OCT-2010	13:46:09			I8
7	ICB	1	20-OCT-2010	13:53:07			I8
8	CRI	1	20-OCT-2010	13:58:14			I8
9	CRI	1	20-OCT-2010	14:04:14			I8
10	ICSA	1	20-OCT-2010	14:09:17			I8
11	ICSAB	1	20-OCT-2010	14:14:02			I8
12	CCV	1	20-OCT-2010	14:20:59			I8
13	CCB	1	20-OCT-2010	14:27:53			I8
14	L8C0EB	1	20-OCT-2010	14:32:51	0286019	A0J130000	I8
15	L8C0EC	5	20-OCT-2010	14:37:36	0286019	A0J130000	I8
16	L7G33	1	20-OCT-2010	14:44:35	0286019	H0I240594	I8
17	L7G37	1	20-OCT-2010	14:51:30	0286019	H0I240594	I8
18	L7G37L	1	20-OCT-2010	14:56:28			I8
19	L7G37S	1	20-OCT-2010	15:01:30	0286019	H0I240594	I8
20	L7G37D	1	20-OCT-2010	15:08:26	0286019	H0I240594	I8
21	L7G39	1	20-OCT-2010	15:15:23	0286019	H0I240594	I8
22	L7G4C	1	20-OCT-2010	15:20:08	0286019	H0I240594	I8
23	L7H5W	1	20-OCT-2010	15:24:54	0286019	H0I260407	I8
24	CCV	1	20-OCT-2010	15:29:40			I8
25	CCB	1	20-OCT-2010	15:36:35			I8
26	L7H5X	1	20-OCT-2010	15:41:31	0286019	H0I260407	I8
27	L744C	1	20-OCT-2010	15:46:37	0286019	H0I260407	I8
28	L8HT4	1	20-OCT-2010	15:51:38	0291018	A0J150401	I8
29	L8HT7	1	20-OCT-2010	15:56:44	0291018	A0J150401	I8
30	L8HT9	1	20-OCT-2010	16:01:30	0291018	A0J150401	I8
31	L8HVE	1	20-OCT-2010	16:06:11	0291018	A0J150401	I8
32	L8HVG	1	20-OCT-2010	16:10:52	0291018	A0J150401	I8
33	L8HVJ	1	20-OCT-2010	16:15:41	0291018	A0J150401	I8
34	L8HVM	1	20-OCT-2010	16:20:28	0291018	A0J150401	I8
35	L8HVML	1	20-OCT-2010	16:25:13			I8
36	CCV	1	20-OCT-2010	16:30:00			I8
37	CCB	1	20-OCT-2010	16:36:56			I8
38	L8HVMX	1	20-OCT-2010	16:41:38	0291018	A0J150401	I8
39	L8HVMS	1	20-OCT-2010	16:46:41	0291018	A0J150401	I8
40	L8HVQ	1	20-OCT-2010	16:53:39	0291018	A0J150401	I8
41	L8HVR	1	20-OCT-2010	16:58:26	0291018	A0J150401	I8
42	L8K2F	1	20-OCT-2010	17:03:08	0291018	A0J150600	I8
43	L8K2L	1	20-OCT-2010	17:07:49	0291018	A0J150600	I8
44	L8K2M	1	20-OCT-2010	17:12:31	0291018	A0J150600	I8

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#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	L76D6	10	20-OCT-2010	17:17:19	0286021	0J08469	I8
46	CCV	1	20-OCT-2010	17:22:04			I8
47	CCB	1	20-OCT-2010	17:29:00			I8
48	L8NTAB	1	20-OCT-2010	17:33:57	0292014	A0J190000	I8
49	L8NTAC	1	20-OCT-2010	17:38:47	0292014	A0J190000	I8
50	L8JQP	1	20-OCT-2010	17:45:47	0292014	A0J150494	I8
51	L8JQPL	1	20-OCT-2010	17:50:45			I8
52	L8JQT	1	20-OCT-2010	17:55:33	0292014	A0J150494	I8
53	L8JQX	1	20-OCT-2010	18:00:17	0292014	A0J150494	I8
54	L8JQXS	1	20-OCT-2010	18:05:03	0292014	A0J150494	I8
55	L8JQXD	1	20-OCT-2010	18:12:01	0292014	A0J150494	I8
56	L8JQ0	1	20-OCT-2010	18:19:02	0292014	A0J150494	I8
57	L8JQ2	1	20-OCT-2010	18:24:07	0292014	A0J150494	I8
58	CCV	1	20-OCT-2010	18:29:09			I8
59	CCB	1	20-OCT-2010	18:36:06			I8
60	L8JQ4	1	20-OCT-2010	18:41:06	0292014	A0J150494	I8
61	L8JQ6	1	20-OCT-2010	18:45:57	0292014	A0J150494	I8
62	L8MNJ	1	20-OCT-2010	18:50:53	0292014	0J18429	I8
63	L8MNJX	1	20-OCT-2010	18:55:50	0292014	0J18429	I8
64	L8MNJS	1	20-OCT-2010	19:00:37	0292014	0J18429	I8
65	L8MNJF	1	20-OCT-2010	19:07:38	0292014	0J18429	I8
66	L8MNK	1	20-OCT-2010	19:12:40	0292014	0J18429	I8
67	L8MNKF	1	20-OCT-2010	19:17:26	0292014	0J18429	I8
68	L8MNL	1	20-OCT-2010	19:22:22	0292014	0J18429	I8
69	L8MNLF	1	20-OCT-2010	19:27:09	0292014	0J18429	I8
70	CCV	1	20-OCT-2010	19:31:58			I8
71	CCB	1	20-OCT-2010	19:38:54			I8
72	L8M0R	1	20-OCT-2010	19:44:02	0292014	0J18456	I8
73	L8NE0	1	20-OCT-2010	19:48:48	0292014	A0J180483	I8
74	L8NTRB	1	20-OCT-2010	19:53:33	0292022	A0J190000	I8
75	L8NTRC	1	20-OCT-2010	19:58:31	0292022	A0J190000	I8
76	CCV	1	20-OCT-2010	20:05:30			I8
77	CCB	1	20-OCT-2010	20:12:27			I8
78	L8HCD	1	20-OCT-2010	20:17:39	0292022	A0J140582	I8
79	L8HCV	1	20-OCT-2010	20:22:57	0292022	A0J140582	I8
80	L8HC0	1	20-OCT-2010	20:27:56	0292022	A0J140582	I8
81	L8HC3	1	20-OCT-2010	20:32:41	0292022	A0J140582	I8
82	L8HC8	1	20-OCT-2010	20:37:34	0292022	A0J140582	I8
83	L8HDA	1	20-OCT-2010	20:42:33	0292022	A0J140582	I8
84	L8HDE	1	20-OCT-2010	20:47:37	0292022	A0J140582	I8
85	L8HDF	1	20-OCT-2010	20:52:46	0292022	A0J140582	I8
86	L8HDG	1	20-OCT-2010	20:57:43	0292022	A0J140582	I8
87	L8HDH	1	20-OCT-2010	21:02:48	0292022	A0J140582	I8
88	CCV	1	20-OCT-2010	21:07:31			I8

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: Instrument Upload Run Log - Page 3 :
: Started Thu Oct 21 07:54:07 2010 by MUSSELMN :
: Data File: UPL$CAN_DATA_ROOT:<REP>I81020A.CSV;1 :

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
89	CCB	1	20-OCT-2010	21:14:30			I8
90	L8HDJ	1	20-OCT-2010	21:19:42	0292022	A0J140582	I8
91	L8JMN	1	20-OCT-2010	21:24:41	0292022	A0J150463	I8
92	L8JMNS	1	20-OCT-2010	21:29:26	0292022	A0J150463	I8
93	L8JMND	1	20-OCT-2010	21:36:24	0292022	A0J150463	I8
94	L8JMR	1	20-OCT-2010	21:43:24	0292022	A0J150463	I8
95	L8JMV	1	20-OCT-2010	21:48:17	0292022	A0J150463	I8
96	L8JM0	1	20-OCT-2010	21:53:02	0292022	A0J150463	I8
97	L8K1R	1	20-OCT-2010	21:57:56	0292022	A0J150598	I8
98	L8K4M	1	20-OCT-2010	22:02:40	0292022	A0J150612	I8
99	L8K4Q	1	20-OCT-2010	22:07:39	0292022	A0J150612	I8
100	CCV	1	20-OCT-2010	22:12:24			I8
101	CCB	1	20-OCT-2010	22:19:21			I8
102	L8K4QL	1	20-OCT-2010	22:24:14			I8
103	L8NTPB	1	20-OCT-2010	22:28:58	0292020	A0J190000	I8
104	L8NTPC	1	20-OCT-2010	22:33:52	0292020	A0J190000	I8
105	L8K0T	1	20-OCT-2010	22:40:51	0292020	A0J150596	I8
106	L8K0TL	1	20-OCT-2010	22:45:39			I8
107	L8K0TS	1	20-OCT-2010	22:50:48	0292020	A0J150596	I8
108	L8K0TD	1	20-OCT-2010	22:57:47	0292020	A0J150596	I8
109	L8K0W	1	20-OCT-2010	23:04:46	0292020	A0J150596	I8
110	L8K1J	1	20-OCT-2010	23:09:42	0292020	A0J150596	I8
111	CCV	1	20-OCT-2010	23:14:44			I8
112	CCB	1	20-OCT-2010	23:21:42			I8
113	ICSA	1	20-OCT-2010	23:26:50			I8
114	ICSAB	1	20-OCT-2010	23:31:36			I8
115	CCV	1	20-OCT-2010	23:38:34			I8
116	CCB	1	20-OCT-2010	23:45:32			I8
117	L8C0EB	1	20-OCT-2010	23:52:00	0286019	A0J130000	I8
118	L8C0EC	5	20-OCT-2010	23:56:54	0286019	A0J130000	I8
119	L7G33	1	21-OCT-2010	00:03:53	0286019	H0I240594	I8
120	L7G37	1	21-OCT-2010	00:10:52	0286019	H0I240594	I8
121	L7G37L	1	21-OCT-2010	00:15:54			I8
122	L7G37S	1	21-OCT-2010	00:20:49	0286019	H0I240594	I8
123	L7G37D	1	21-OCT-2010	00:27:48	0286019	H0I240594	I8
124	L7G39	1	21-OCT-2010	00:34:49	0286019	H0I240594	I8
125	L7G4C	1	21-OCT-2010	00:39:43	0286019	H0I240594	I8
126	L7H5W	1	21-OCT-2010	00:44:30	0286019	H0I260407	I8
127	CCV	1	21-OCT-2010	00:49:27			I8
128	CCB	1	21-OCT-2010	00:56:25			I8
129	L7H5X	1	21-OCT-2010	01:01:37	0286019	H0I260407	I8
130	L744C	1	21-OCT-2010	01:06:24	0286019	H0I260407	I8
131	CCV	1	21-OCT-2010	01:11:09			I8
132	CCB	1	21-OCT-2010	01:18:09			I8

MRC-SED-1 except Cu

End of Report

: Instrument Upload Run Log - Page 1 :
: Started Fri Oct 22 07:04:03 2010 by MUSSELMN :
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2	STD2	1	21-OCT-2010	10:27:58			I8
3	STD3	1	21-OCT-2010	10:34:54			I8
4	STD4	1	21-OCT-2010	10:41:49			I8
5	STD5	1	21-OCT-2010	10:48:44			I8
6	ICV	1	21-OCT-2010	10:55:40			I8
7	ICB	1	21-OCT-2010	11:02:37			I8
8	CRI Rerun WR-10-2210		21-OCT-2010	11:08:30			I8
9	ICSA	1	21-OCT-2010	11:13:19			I8
10	ICSAB	1	21-OCT-2010	11:18:04			I8
11	CCV	1	21-OCT-2010	11:25:01			I8
12	CCB	1	21-OCT-2010	11:31:57			I8
13	CRI	1	21-OCT-2010	11:38:13			I8
14	CCV	1	21-OCT-2010	11:43:08			I8
15	CCB	1	21-OCT-2010	11:50:03			I8
16	L8C0EB	1	21-OCT-2010	11:56:19	0286019	A0J130000	I8
17	L8C0EC	5	21-OCT-2010	12:01:00	0286019	A0J130000	I8
18	L7G39	1	21-OCT-2010	12:07:55	0286019	H0I240594	I8
19	L744C	5	21-OCT-2010	12:14:51	0286019	H0I260407	I8
20	CCV	1	21-OCT-2010	12:19:52			I8
21	CCB	1	21-OCT-2010	12:26:47			I8
22	L8NTAB	1	21-OCT-2010	12:33:40	0292014	A0J190000	I8
23	L8NTAC	1	21-OCT-2010	12:38:21	0292014	A0J190000	I8
24	L8JQX	1	21-OCT-2010	12:45:18	0292014	A0J150494	I8
25	L8JQXS	1	21-OCT-2010	12:51:36	0292014	A0J150494	I8
26	L8JQXD	1	21-OCT-2010	12:58:33	0292014	A0J150494	I8
27	L8JQ0	1	21-OCT-2010	13:05:31	0292014	A0J150494	I8
28	L8MNJ	1	21-OCT-2010	13:12:29	0292014	0J18429	I8
29	L8MNJX	1	21-OCT-2010	13:17:27	0292014	0J18429	I8
30	L8MNJS	1	21-OCT-2010	13:22:13	0292014	0J18429	I8
31	L8MNK	1	21-OCT-2010	13:29:09	0292014	0J18429	I8
32	CCV	1	21-OCT-2010	13:35:24			I8
33	CCB	1	21-OCT-2010	13:42:20			I8
34	L8M0R	1	21-OCT-2010	13:48:38	0292014	0J18456	I8
35	L8NTRB	1	21-OCT-2010	13:53:29	0292022	A0J190000	I8
36	L8NTRC	1	21-OCT-2010	13:58:19	0292022	A0J190000	I8
37	L8HCD	1	21-OCT-2010	14:04:55	0292022	A0J140582	I8
38	L8HCV	1	21-OCT-2010	14:09:49	0292022	A0J140582	I8
39	L8HC0	1	21-OCT-2010	14:14:37	0292022	A0J140582	I8
40	L8HC3	1	21-OCT-2010	14:19:28	0292022	A0J140582	I8
41	L8HC8	1	21-OCT-2010	14:24:27	0292022	A0J140582	I8
42	L8HDA	1	21-OCT-2010	14:29:22	0292022	A0J140582	I8
43	L8HDE	1	21-OCT-2010	14:34:22	0292022	A0J140582	I8
44	CCV	1	21-OCT-2010	14:39:13			I8

(continued)

#	WorkOrder	Dilution	Date	Time	Batch	Lot	Instrument
45	CCB	1	21-OCT-2010	14:46:10			I8
46	L8HDF	1	21-OCT-2010	14:51:08	0292022	A0J140582	I8
47	L8HDG	1	21-OCT-2010	14:56:10	0292022	A0J140582	I8
48	L8HDH	1	21-OCT-2010	15:01:10	0292022	A0J140582	I8
49	L8HDJ	1	21-OCT-2010	15:06:03	0292022	A0J140582	I8
50	L8JMN	1	21-OCT-2010	15:11:06	0292022	A0J150463	I8
51	L8JMNS	1	21-OCT-2010	15:15:51	0292022	A0J150463	I8
52	L8JMND	1	21-OCT-2010	15:22:33	0292022	A0J150463	I8
53	L8K1R	1	21-OCT-2010	15:29:24	0292022	A0J150598	I8
54	L8K4M	1	21-OCT-2010	15:34:14	0292022	A0J150612	I8
55	L8K4Q	1	21-OCT-2010	15:39:33	0292022	A0J150612	I8
56	CCV	1	21-OCT-2010	15:44:25			I8
57	CCB	1	21-OCT-2010	15:51:23			I8
58	L8K4QL	1	21-OCT-2010	15:56:09			I8
59	L8QM8B	1	21-OCT-2010	16:01:01	0293018	A0J200000	I8
60	L8QM8C	1	21-OCT-2010	16:05:52	0293018	A0J200000	I8
61	L78KVR	1	21-OCT-2010	16:12:49	0293018	A0J090467	I8
62	L8QNDB	1	21-OCT-2010	16:17:35	0293021	A0J200000	I8
63	L8QNDC	1	21-OCT-2010	16:22:19	0293021	A0J200000	I8
64	L8N41	1	21-OCT-2010	16:29:16	0293021	A0J190412	I8
65	L8N41S	1	21-OCT-2010	16:34:22	0293021	A0J190412	I8
66	L8N41D	1	21-OCT-2010	16:41:20	0293021	A0J190412	I8
67	L8N5C	1	21-OCT-2010	16:48:17	0293021	A0J190412	I8
68	CCV	1	21-OCT-2010	16:53:17			I8
69	CCB	1	21-OCT-2010	17:00:16			I8
70	L8N5D	1	21-OCT-2010	17:05:20	0293021	A0J190412	I8
71	L8N5DL	1	21-OCT-2010	17:10:08			I8
72	L8PNM	1	21-OCT-2010	17:14:56	0293021	A0J190468	I8
73	L8PN7	1	21-OCT-2010	17:19:41	0293021	A0J190468	I8
74	L8PN8	1	21-OCT-2010	17:24:29	0293021	A0J190468	I8
75	L8PN9	1	21-OCT-2010	17:29:13	0293021	A0J190468	I8
76	L8PPD	1	21-OCT-2010	17:33:55	0293021	A0J190468	I8
77	L8PPH	1	21-OCT-2010	17:38:38	0293021	A0J190468	I8
78	L8N8X	1	21-OCT-2010	17:43:21	0293021	0J19430	I8
79	L8N8XF	1	21-OCT-2010	17:48:05	0293021	0J19430	I8
80	CCV	1	21-OCT-2010	17:53:09			I8
81	CCB	1	21-OCT-2010	18:00:06			I8
82	L8N82	1	21-OCT-2010	18:05:01	0293021	0J19430	I8
83	L8N82F	1	21-OCT-2010	18:09:45	0293021	0J19430	I8
84	L8N86	1	21-OCT-2010	18:14:30	0293021	0J19430	I8
85	L8N86F	1	21-OCT-2010	18:19:15	0293021	0J19430	I8
86	L8N88	1	21-OCT-2010	18:24:12	0293021	0J19430	I8
87	L8N88F	1	21-OCT-2010	18:28:58	0293021	0J19430	I8
88	L8N9A	1	21-OCT-2010	18:33:42	0293021	0J19430	I8

(continued)

Sample MRC-SW-1
Cr reported result
6.7 ug/L

L8K1C 10/19/2010 18:07:11 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
X		93.923%	0.024	62.950
%RSD		1.560	6.829	0.723
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
X		27390.000	3081.000	393.200
%RSD		2.191	1.582	0.800
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
X		T 0.000	T 3637.000	20350.000
%RSD		T 0.000	T 1.367	0.957
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
X		T 92.031%	90.131%	9.829
%RSD		T 1.197	0.279	14.160
Run	Time	51V	52Cr	53Cr
		ppb	ppb	ppb
X		3.716	6.687	0.005
%RSD		7.671	4.912	12000.000
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
X		23.620	602.600	0.403
%RSD		0.413	1.182	2.434
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
X		2.419	23.210	47.800
%RSD		10.560	2.375	1.096
Run	Time	72Ge	75As	77Ar_Cl
		ppb	ppb	ppb
X		94.872%	2.614	0.130
%RSD		1.556	6.822	23.160
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
X		0.007	78.860	2.845
%RSD		3957.000	0.967	5.282
Run	Time	105Pd	107Ag	108Mo_O
		ppb	ppb	ppb
X		0.000	0.028	2.911
%RSD		0.000	9.264	212.200
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
X		0.095	96.926%	0.568
%RSD		39.180	3.353	10.120
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
X		2.032	28.300	0.000
%RSD		1.752	2.298	0.000
Run	Time	165Ho	182W	205Tl
		ppb	ppb	ppb
X		0.000	0.169	0.192
%RSD		0.000	0.986	2.376
Run	Time	208Pb	209Bi	
		ppb	ppb	
X		4.016	102.482%	
%RSD		1.116	2.030	

Hg MRC-SED-1
rep. result 0.034 mg/kg

$$\left(0.1643\right)\left(\frac{100ml}{.6g}\right)\left(\frac{1}{.80}\right)\left(\frac{1}{1000}\right) = 0.034$$

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L8HC8 Seq: 102 15:00:07 25 Oct 2010 HG
SOLID
Hg .2823 ppb .0000 % .2823

*** Sample ID: L8HC3 Seq: 103 15:01:15 25 Oct 2010 HG
SOLID
Hg .2753 ppb .0000 % .2753

*** Sample ID: L8K4Q Seq: 104 15:02:43 25 Oct 2010 HG
SOLID
Hg .0106 ppb .0000 % .0106

*** Check Standard: 2 Ck2CCV Seq: 105 15:03:54 25 Oct 2010 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.96	4.848	5.000	ppb	.0000 %

*** Check Standard: 1 Ck1CCB Seq: 106 15:05:09 25 Oct 2010 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		.0392	.2000	ppb	.0000 %

*** Sample ID: L8K4M Seq: 107 15:06:15 25 Oct 2010 HG
SOLID
Hg .0924 ppb .0000 % .0924

*** Sample ID: L8HDH Seq: 108 15:07:25 25 Oct 2010 HG
SOLID
Hg .5347 ppb .0000 % .5347

*** Sample ID: L8HDG Seq: 109 15:08:31 25 Oct 2010 HG
SOLID
Hg .3106 ppb .0000 % .3106

*** Sample ID: L8HCV Seq: 110 15:09:40 25 Oct 2010 HG
SOLID
Hg .4452 ppb .0000 % .4452

*** Sample ID: L8HDE Seq: 111 15:11:37 25 Oct 2010 HG
SOLID
Hg .2358 ppb .0000 % .2358

*** Sample ID: L8HDF Seq: 112 15:12:45 25 Oct 2010 HG
SOLID
Hg .2615 ppb .0000 % .2615

*** Sample ID: L8K1R Seq: 113 15:13:54 25 Oct 2010 HG
SOLID
Hg .1643 ppb .0000 % .1643

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **MIKE MARTIN** **DATE:** **OCTOBER 25, 2010**

FROM: **CHERYLE LU** **COPIES:** **DV FILE**

SUBJECT: **DATA VALIDATION – METALS, MERCURY, POLYCHLORINATED BIPHENYLS, SEMIVOLATILE ORGANIC COMPONDS, AND METALS, ACID VOLATILE SULFIDES/SEM METALS, AND MISCELLANEOUS LOCKHEED MIDDLE RIVER COMPLEX, MD**

SAMPLE DELIVERY GROUP (SDG) – C0H180480

SAMPLES: 14/ Sediment

SD-90-SS	SD-90-01	SD-90-02	SD-90-04	SD-91-SS
SD-91-01	SD-94-SS	SD-94-01	SD-94-02	SD-94-04
SD-97-SS	SD-97-01	SD-97-02	SD-97-04	

Overview

The sample set for Lockheed Middle River Complex (MRC) SDG C0H180480 consists of 14 sediment samples. Fourteen (14) samples were analyzed for semivolatile organic compounds (for poly-aromatic hydrocarbons (PAHs)) by Method 8270C, for metals by Method 6020 Inductively Coupled Plasma Mass Spectrometry (ICP-MS), for mercury by Method 7471A, and for polychlorinated biphenyls (PCBs) by Method 8082. Four (4) samples were analyzed for acid volatile sulfide (AVS) and simultaneously extractable metals (SEM), and three samples were analyzed for total organic carbon (TOC) by Lloyd Kahn methodology .

The samples were collected by Tetra Tech on August 17, 2010 and analyzed by Test America Pittsburgh Laboratory. All analyses were conducted in accordance with SW-846 Methods 6020, 7471A, 8270C, and 8082, EPA (AVS/SEM) and EPA TOC by Lloyd Kahn analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, ICP interference check sample results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Major Problems – None.

Minor Problems

- The chrysene-d12 and perylene-d12 internal standard area counts were greater than the upper quality control (QC) limits for sample SD-90-02. The positive results reported for pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene were qualified as estimated, "J".

- The internal standare perylene-d12 area count was greater than the upper QC limit for samples SD-90-04, SD-97-02 and SD-97-04. The positive results reported for benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene were qualified as estimated, "J". No positive results were reported in sample SD-97-02 so no action was required.

- The relative percent difference (RPD) value was greater than 25% for Aroclor-1260 results between column 1 and 2 for samples SD-90-01(29.5%) and SD-97-SS (27.8%). The positive results were qualified as estimated, "J".

- The MS/MSD Batch #C0H180480-001 had percent recoveries (%Rs) below the QC limits for antimony, therefore, the positive results were qualified as estimated, "J" in all affected samples as a result of conflicting directional bias.

- The percent difference (%D) value in the serial dilution test was greater than 10% for antimony, lead and thallium, the positive results were qualified as estimated, "J" in all samples.

- The positive results reported below the reporting limit (RL) were qualified as estimated "J", due to uncertainty near the detection limit.

Notes

The MS/MSD batch #C0H180480-001 had percent recoveries (%Rs) not calculated because the analyte concentrations were greater than 4 times of the spike concentrations for lead, zinc and mercury, no qualification was required.

The MS percent recovery (%R) of copper was below the QC limit, but the MSD %R was within the QC limit, no qualification was required.

The method blank (batch #0239078) contained chromium [0.025 milligrams per kilogram (mg/kg)] and copper (0.15 mg/kg). However, the analyte concentrations in the associated samples were greater than the five times of the blank concentration, no qualification was required.

Chromium and zinc were detected in the SEM preparation blank. No action was required because all sample concentrations exceeded the 5X action level for blank contamination.

The CRDL standard for lead and zinc were greater than the 110% upper quality control limit on 8/25/2010 @12:53. No action was required because all results were greater than two times the CRDL.

Executive Summary

Laboratory Performance: The chrysene-d12 and perylene-d12 internal standard area counts in PAH fraction were greater than the upper QC limits for several samples. The RPD value was greater than 25% for Aroclor-1260 results between column 1 and 2 in PC fraction for two samples.

The metal MS/MSD had %Rs below the QC limits for antimony, therefore, the positive results were qualified as biased low, "L" for all affected samples. The %D value in the serial dilution test was greater than 10% for antimony, lead and thallium, the positive results were qualified as estimated, "J" for sample SD-90-SS.

Other Factors Affecting Data Quality: The matrix spike/matrix spike duplicate %Rs for antimony fell below 75% affecting all samples. The serial dilution %D for antimony, lead, and zinc exceeded the 10% criterion. All samples were affected.

The data for the analysis were reviewed with reference to the "Region III Modifications to National Functional Guidelines for Organic Data Review, Multi-Media, Multi-Concentration, September 1994 and EPA Region III modifications to the National Functional Guidelines for Inorganic Data Review, April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified above."

Tetra Tech NUS
Cheryle C. Lu
Senior Toxicologist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

Data Qualifier Key:

J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Nondetected result

B - Not detected substantially above the level reported in the laboratory method blanks and trip blank.

UR - Unreliable result. Analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	SD-90-01			SD-90-02			SD-90-02-DL			SD-90-04		
SDG: C0H180480	LAB_ID	C0H180480002			C0H180480003			C0H180480003			C0H180480004		
FRACTION: PAH	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	38.0			42.0			42.0			57.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		190			410						10	J	P
ACENAPHTHYLENE		280			460						27	J	P
ANTHRACENE		530			1300						26	J	P
BENZO(A)ANTHRACENE		2100			5000	J	N				73		
BENZO(A)PYRENE		2300			5100	J	N				63	J	N
BENZO(B)FLUORANTHENE		3600			7300	J	N				93	J	N
BENZO(G,H,I)PERYLENE		1900			3100	J	N				69	J	N
BENZO(K)FLUORANTHENE		9	U		8	J	N				5.9	UJ	N
CHRYSENE		2500			5400	J	N				82		
DIBENZO(A,H)ANTHRACENE		510			1000	J	N				51	J	N
FLUORANTHENE		5500						13000			160		
FLUORENE		200			560						24	J	P
INDENO(1,2,3-CD)PYRENE		1500			2900	J	N				78	J	N
NAPHTHALENE		120			230						8.5	J	P
PHENANTHRENE		1800			4600						56		
PYRENE		3400			7300	J	N				120		

PROJ_NO: 02903 SDG: C0H180480 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-90-SS			SD-91-01			SD-91-SS			SD-94-01		
	LAB_ID	C0H180480001			C0H180480006			C0H180480005			C0H180480008		
	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	27.0			75.0			70.0			40.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		62	J	Y	2.1	U		2.3	U		3.9	U	
ACENAPHTHYLENE		120	J	Y	2.5	U		2.7	U		4.7	U	
ANTHRACENE		190	J	Y	2.2	U		2.3	U		4	U	
BENZO(A)ANTHRACENE		810	J	Y	2.8	U		5.6	J	P	5.1	U	
BENZO(A)PYRENE		1100	J	Y	2.2	U		2.4	U		4.1	U	
BENZO(B)FLUORANTHENE		2000	J	Y	3.5	U		3.7	U		6.5	U	
BENZO(G,H,I)PERYLENE		1100	J	Y	2.2	U		2.4	U		4.1	U	
BENZO(K)FLUORANTHENE		12	UJ	Y	4.5	U		4.8	U		8.3	U	
CHRYSENE		1200	J	Y	2.6	U		2.8	U		4.9	U	
DIBENZO(A,H)ANTHRACENE		270	J	Y	2.5	U		2.6	U		4.6	U	
FLUORANTHENE		2500	J	Y	2.4	U		8	J	P	4.4	U	
FLUORENE		82	J	Y	2.9	U		3.1	U		5.4	U	
INDENO(1,2,3-CD)PYRENE		850	J	Y	2.3	U		2.4	U		4.2	U	
NAPHTHALENE		88	J	Y	1.9	U		2	U		3.5	U	
PHENANTHRENE		650	J	Y	3.5	U		3.8	U		6.5	U	
PYRENE		1600	J	Y	2.2	U		6.2	J	P	4.2	U	

PROJ_NO: 02903	NSAMPLE	SD-94-02			SD-94-04			SD-94-SS			SD-97-01		
SDG: C0H180480	LAB_ID	C0H180480009			C0H180480010			C0H180480007			C0H180480012		
FRACTION: PAH	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	46.0			60.0			36.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		3.5	U		2.7	U		4.5	U		22	J	PY
ACENAPHTHYLENE		4.2	U		3.2	U		5.3	U		47	J	PY
ANTHRACENE		3.6	U		2.7	U		4.6	U		75	J	Y
BENZO(A)ANTHRACENE		4.5	U		3.5	U		16	J	P	190	J	Y
BENZO(A)PYRENE		3.6	U		2.8	U		22	J	P	210	J	Y
BENZO(B)FLUORANTHENE		5.7	U		4.4	U		27	J	P	370	J	Y
BENZO(G,H,I)PERYLENE		3.6	U		2.8	U		67			240	J	Y
BENZO(K)FLUORANTHENE		7.3	U		5.7	U		9.7	J	P	12	UJ	Y
CHRYSENE		4.3	U		3.3	U		21	J	P	220	J	Y
DIBENZO(A,H)ANTHRACENE		4	U		3.1	U		5.2	U		120	J	Y
FLUORANTHENE		3.9	U		3	U		41	J	P	500	J	Y
FLUORENE		4.8	U		3.7	U		6.1	U		37	J	PY
INDENO(1,2,3-CD)PYRENE		3.7	U		2.9	U		82			230	J	Y
NAPHTHALENE		3.1	U		2.4	U		4	U		86	J	Y
PHENANTHRENE		5.8	U		4.4	U		7.4	U		190	J	Y
PYRENE		3.7	U		2.8	U		28	J	P	360	J	Y

PROJ_NO: 02903 SDG: C0H180480 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-97-02			SD-97-04			SD-97-SS		
	LAB_ID	C0H180480013			C0H180480014			C0H180480011		
	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	39.0			41.0			23.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		4.1	U		3.9	U		6.9	UJ	Y
ACENAPHTHYLENE		11	J	P	4.7	U		38	J	PY
ANTHRACENE		17	J	P	4	U		49	J	PY
BENZO(A)ANTHRACENE		48			5.1	U		130	J	Y
BENZO(A)PYRENE		34	J	PN	4.1	U		170	J	Y
BENZO(B)FLUORANTHENE		67	J	N	6.4	U		320	J	Y
BENZO(G,H,I)PERYLENE		80	J	N	4.1	U		250	J	Y
BENZO(K)FLUORANTHENE		8.6	UJ	N	8.2	U		14	UJ	Y
CHRYSENE		90			4.9	U		190	J	Y
DIBENZO(A,H)ANTHRACENE		4.7	J	N	4.5	U		130	J	Y
FLUORANTHENE		150			4.4	U		370	J	Y
FLUORENE		5.6	U		5.4	U		23	J	PY
INDENO(1,2,3-CD)PYRENE		82	J	N	4.2	U		240	J	Y
NAPHTHALENE		3.7	U		3.5	U		53	J	PY
PHENANTHRENE		40	J	P	6.5	U		120	J	Y
PYRENE		100			4.1	U		250	J	Y

PROJ_NO: 02903	NSAMPLE	SD-90-01			SD-90-02			SD-90-04			SD-90-SS		
SDG: C0H180480	LAB_ID	C0H180480002			C0H180480003			C0H180480004			C0H180480001		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	38.0			42.0			57.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.3	U		3	U		2.2	U		4.6	UJ	Y
AROCLOR-1221		4.2	U		3.8	U		2.8	U		5.8	UJ	Y
AROCLOR-1232		3.8	U		3.4	U		2.5	U		5.2	UJ	Y
AROCLOR-1242		3.6	U		3.3	U		2.4	U		5	UJ	Y
AROCLOR-1248		2.1	U		1.9	U		1.4	U		2.9	UJ	Y
AROCLOR-1254		3.1	U		2.8	U		2.1	U		4.4	UJ	Y
AROCLOR-1260		1000	J	U	400			2.1	U		690	J	Y

PROJ_NO: 02903	NSAMPLE	SD-91-01			SD-91-SS			SD-94-01			SD-94-02		
SDG: C0H180480	LAB_ID	C0H180480006			C0H180480005			C0H180480008			C0H180480009		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	75.0			70.0			40.0			46.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.6	U		1.8	U		3.1	U		2.7	U	
AROCLOR-1221		2.1	U		2.3	U		3.9	U		3.5	U	
AROCLOR-1232		1.9	U		2	U		3.5	U		3.1	U	
AROCLOR-1242		1.8	U		1.9	U		3.4	U		3	U	
AROCLOR-1248		1	U		1.1	U		1.9	U		1.7	U	
AROCLOR-1254		1.6	U		1.7	U		2.9	U		2.6	U	
AROCLOR-1260		1.6	U		1.7	U		2.9	U		2.6	U	

PROJ_NO: 02903	NSAMPLE	SD-94-04			SD-94-SS			SD-97-01			SD-97-02		
SDG: C0H180480	LAB_ID	C0H180480010			C0H180480007			C0H180480012			C0H180480013		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	60.0			36.0			27.0			39.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.1	U		3.5	U		4.5	UJ	Y	3.2	U	
AROCLOR-1221		2.7	U		4.4	U		5.7	UJ	Y	4.1	U	
AROCLOR-1232		2.4	U		4	U		5.1	UJ	Y	3.7	U	
AROCLOR-1242		2.3	U		3.8	U		4.9	UJ	Y	3.5	U	
AROCLOR-1248		1.3	U		2.2	U		2.8	UJ	Y	2	U	
AROCLOR-1254		2	U		3.3	U		4.3	UJ	Y	3	U	
AROCLOR-1260		2	U		44			210	J	Y	3	U	

PROJ_NO: 02903	NSAMPLE	SD-97-04			SD-97-SS		
SDG: C0H180480	LAB_ID	C0H180480014			C0H180480011		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	41.0			23.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3	U		5.3	UJ	Y
AROCLOR-1221		3.9	U		6.8	UJ	Y
AROCLOR-1232		3.5	U		6.1	UJ	Y
AROCLOR-1242		3.3	U		5.8	UJ	Y
AROCLOR-1248		1.9	U		3.4	UJ	Y
AROCLOR-1254		2.9	U		5.1	UJ	Y
AROCLOR-1260		2.9	U		620	J	UY

PROJ_NO: 02903	NSAMPLE	SD-90-01			SD-90-02			SD-90-04			SD-90-SS		
SDG: C0H180480	LAB_ID	C0H180480002			C0H180480003			C0H180480004			C0H180480001		
FRACTION: AVS/SEM	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UMOLES/G			UMOLES/G			UMOLES/G			UMOLES/G		
	PCT_SOLIDS	38.0			42.0			57.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACID VOLATILE SULFIDE		19			18.7			0.27	U		22.6	J	Y
CADMIUM		0.085			0.22			0.0068			0.034	J	Y
CHROMIUM		1.6			5.9			0.18			0.71	J	Y
COPPER		0.037			0.0021	U		0.064			0.086	J	Y
LEAD		0.66			0.47			0.033			0.36	J	Y
NICKEL		0.18			0.19			0.024	J	P	0.17	J	Y
SILVER		0.00095	J	P	0.00066	J	P	0.0055			0.0005	UJ	Y
ZINC		4.2			5.3			0.42			3.9	J	Y

PROJ_NO: 02903	NSAMPLE	SD-90-01			SD-90-02			SD-90-04			SD-90-SS		
SDG: C0H180480	LAB_ID	C0H180480002			C0H180480003			C0H180480004			C0H180480001		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	38.0			42.0			57.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.4	J	DI	3	J	DI	0.25	J	DI	1.4	J	DIY
ARSENIC		7.6			6.5			3.3			8.9	J	Y
BERYLLIUM		1.6			1.8			1.5			1.8	J	Y
CADMIUM		12.5			38.7			1.1			5.2	J	Y
CHROMIUM		212			690			44.7			110	J	Y
COPPER		130			82.7			15.9			116	J	Y
LEAD		257	J	I	195	J	I	13.7	J	I	111	J	IY
MERCURY		2			4.7			0.099			0.43	J	Y
NICKEL		41.8			46.1			15.4			36.4	J	Y
SELENIUM		1.8			1.9			0.89			1.8	J	Y
SILVER		8.9			29.3			1.7			2.8	J	Y
THALLIUM		0.26	J	I	0.32	J	I	0.12	J	I	0.24	J	IY
ZINC		386			524			51.2			382	J	Y

PROJ_NO: 02903	NSAMPLE	SD-91-01			SD-91-SS			SD-94-01			SD-94-02		
SDG: C0H180480	LAB_ID	C0H180480006			C0H180480005			C0H180480008			C0H180480009		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	75.0			70.0			40.0			46.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	J	DI	0.2	J	DI	0.076	J	DIP	0.048	J	DIP
ARSENIC		3.6			3.6			4.2			4.4		
BERYLLIUM		2.5			2.4			1.7			1.7		
CADMIUM		0.18			0.18			0.37			0.37		
CHROMIUM		17.6			21			26			24.7		
COPPER		23			21.7			18.4			15.9		
LEAD		5.5	J	I	6.6	J	I	9	J	I	7.4	J	I
MERCURY		0.0072	U		0.0078	U		0.028	J	P	0.024	J	P
NICKEL		20.4			15			18.7			17		
SELENIUM		0.66			0.76			1			1		
SILVER		0.025	J	P	0.029	J	P	0.065	J	P	0.055	J	P
THALLIUM		0.065	J	IP	0.084	J	I	0.15	J	I	0.12	J	I
ZINC		44.7			40.2			56			52.8		

PROJ_NO: 02903	NSAMPLE	SD-94-04			SD-94-SS			SD-97-01			SD-97-02		
SDG: C0H180480	LAB_ID	C0H180480010			C0H180480007			C0H180480012			C0H180480013		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	60.0			36.0			27.0			39.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.2	J	DI	0.11	J	DIP	1	J	DIY	0.17	J	DIP
ARSENIC		5.7			4.6			11	J	Y	6.2		
BERYLLIUM		3.4			1.7			2.6	J	Y	1.8		
CADMIUM		0.32			0.88			22	J	Y	2.5		
CHROMIUM		27.7			30.9			423	J	Y	80.6		
COPPER		18.9			25.1			110	J	Y	21.7		
LEAD		5.7	J	I	15.9	J	I	149	J	IY	24.4	J	I
MERCURY		0.0091	U		0.056			0.99	J	Y	0.1		
NICKEL		21.8			20.2			46.4	J	Y	23		
SELENIUM		0.97			1.2			2.2	J	Y	1.3		
SILVER		0.039	J	P	0.15			5	J	Y	0.73		
THALLIUM		0.077	J	IP	0.16	J	I	0.3	J	IY	0.17	J	I
ZINC		56.3			77.3			439	J	Y	102		

PROJ_NO: 02903	NSAMPLE	SD-97-04			SD-97-SS		
SDG: C0H180480	LAB_ID	C0H180480014			C0H180480011		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	41.0			23.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.16	J	DIP	0.71	J	DIY
ARSENIC		6.5			10.9	J	Y
BERYLLIUM		1.9			2.1	J	Y
CADMIUM		0.35			6.7	J	Y
CHROMIUM		34.1			171	J	Y
COPPER		17.5			145	J	Y
LEAD		13.7	J	I	141	J	IY
MERCURY		0.036	J	P	0.52	J	Y
NICKEL		22.6			43	J	Y
SELENIUM		1.1			2.1	J	Y
SILVER		0.076	J	P	2.3	J	Y
THALLIUM		0.16	J	I	0.27	J	IY
ZINC		76.7			415	J	Y

PROJ_NO: 02903	NSAMPLE	SD-90-01			SD-90-02			SD-90-SS		
SDG: C0H180480	LAB_ID	C0H180480002			C0H180480003			C0H180480001		
FRACTION: MISC	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	38.0			42.0			27.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		35900			35900			28000	J	Y

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: SD-90-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-002	Work Order #...:	L5QX01AH	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:07	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:20		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	62	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	120	44	ug/kg	3.8
Acenaphthylene	280	44	ug/kg	5.1
Acenaphthene	190	44	ug/kg	4.3
Fluorene	200	44	ug/kg	5.8
Phenanthrene	1800	44	ug/kg	7.0
Anthracene	530	44	ug/kg	4.3
Fluoranthene	5500	44	ug/kg	4.7
Pyrene	3400	44	ug/kg	4.5
Benzo(a)anthracene	2100	44	ug/kg	5.5
Chrysene	2500	44	ug/kg	5.3
Benzo(b)fluoranthene	3600	44	ug/kg	7.0
Benzo(k)fluoranthene	ND	44	ug/kg	9.0
Benzo(a)pyrene	2300	44	ug/kg	4.4
Indeno(1,2,3-cd)pyrene	1500	44	ug/kg	4.6
Dibenzo(a,h)anthracene	510	44	ug/kg	4.9
Benzo(ghi)perylene	1900	44	ug/kg	4.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	58	(28 - 107)
Phenol-d5	60	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-003	Work Order #...:	L5QX11AH	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:20	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:39		
Dilution Factor:	2.48	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	58	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**230**	**40**	**ug/kg**	3.4
Acenaphthylene	**460**	**40**	**ug/kg**	4.6
Acenaphthene	**410**	**40**	**ug/kg**	3.8
Fluorene	**560**	**40**	**ug/kg**	5.2
Phenanthrene	**4600**	**40**	**ug/kg**	6.3
Anthracene	**1300**	**40**	**ug/kg**	3.9
Fluoranthene	**13000 E**	**40**	**ug/kg**	4.3
Pyrene	**7300**	**40**	**ug/kg**	4.0
Benzo(a)anthracene	**5000**	**40**	**ug/kg**	5.0
Chrysene	**5400**	**40**	**ug/kg**	4.7
Benzo(b)fluoranthene	**7300**	**40**	**ug/kg**	6.3
Benzo(k)fluoranthene	ND	40	ug/kg	8.0
Benzo(a)pyrene	**5100**	**40**	**ug/kg**	4.0
Indeno(1,2,3-cd)pyrene	**2900**	**40**	**ug/kg**	4.1
Dibenzo(a,h)anthracene	**1000**	**40**	**ug/kg**	4.4
Benzo(ghi)perylene	**3100**	**40**	**ug/kg**	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	77	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	82	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-003	Work Order #...:	L5QX12AH	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:20	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0232395	Analysis Time..:	06:12		
Dilution Factor:	12.42	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	58	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	300	200	ug/kg	17
Acenaphthylene	460	200	ug/kg	23
Acenaphthene	450	200	ug/kg	19
Fluorene	610	200	ug/kg	26
Phenanthrene	5100	200	ug/kg	32
Anthracene	1400	200	ug/kg	19
Fluoranthene	13000	200	ug/kg	21
Pyrene	10000	200	ug/kg	20
Benzo(a)anthracene	6100	200	ug/kg	25
Chrysene	6000	200	ug/kg	24
Benzo(b)fluoranthene	8000	200	ug/kg	31
Benzo(k)fluoranthene	7500	200	ug/kg	40
Benzo(a)pyrene	5200	200	ug/kg	20
Indeno(1,2,3-cd)pyrene	3100	200	ug/kg	21
Dibenzo(a,h)anthracene	1200	200	ug/kg	22
Benzo(ghi)perylene	3600	200	ug/kg	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-004	Work Order #...:	L5QX21AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:59		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	43	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	8.5 J	30	ug/kg	2.5
Acenaphthylene	27 J	30	ug/kg	3.4
Acenaphthene	10 J	30	ug/kg	2.8
Fluorene	24 J	30	ug/kg	3.9
Phenanthrene	56	30	ug/kg	4.7
Anthracene	26 J	30	ug/kg	2.9
Fluoranthene	160	30	ug/kg	3.1
Pyrene	120	30	ug/kg	3.0
Benzo(a)anthracene	73	30	ug/kg	3.7
Chrysene	82	30	ug/kg	3.5
Benzo(b)fluoranthene	93	30	ug/kg	4.6
Benzo(k)fluoranthene	ND	30	ug/kg	5.9
Benzo(a)pyrene	63	30	ug/kg	2.9
Indeno(1,2,3-cd)pyrene	78	30	ug/kg	3.0
Dibenzo(a,h)anthracene	51	30	ug/kg	3.3
Benzo(ghi)perylene	69	30	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	66	(27 - 110)
Terphenyl-d14	60	(21 - 130)
2-Fluorobiphenyl	63	(28 - 108)
2-Fluorophenol	57	(28 - 107)
Phenol-d5	56	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-001	Work Order #...:	L5QXW1AD	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:05	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:00		
Dilution Factor:	2.49	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	73	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	88	61	ug/kg	5.3
Acenaphthylene	120	61	ug/kg	7.0
Acenaphthene	62	61	ug/kg	5.9
Fluorene	82	61	ug/kg	8.0
Phenanthrene	650	61	ug/kg	9.7
Anthracene	190	61	ug/kg	6.0
Fluoranthene	2500	61	ug/kg	6.5
Pyrene	1600	61	ug/kg	6.2
Benzo(a)anthracene	810	61	ug/kg	7.6
Chrysene	1200	61	ug/kg	7.3
Benzo(b)fluoranthene	2000	61	ug/kg	9.6
Benzo(k)fluoranthene	ND	61	ug/kg	12
Benzo(a)pyrene	1100	61	ug/kg	6.1
Indeno(1,2,3-cd)pyrene	850	61	ug/kg	6.3
Dibenzo(a,h)anthracene	270	61	ug/kg	6.8
Benzo(ghi)perylene	1100	61	ug/kg	6.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(27 - 110)
Terphenyl-d14	78	(21 - 130)
2-Fluorobiphenyl	84	(28 - 108)
2-Fluorophenol	76	(28 - 107)
Phenol-d5	75	(30 - 112)
2,4,6-Tribromophenol	81	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-006	Work Order #...:	L5QX41AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 11:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	10:38		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	25	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	22	ug/kg	1.9
Acenaphthylene	ND	22	ug/kg	2.5
Acenaphthene	ND	22	ug/kg	2.1
Fluorene	ND	22	ug/kg	2.9
Phenanthrene	ND	22	ug/kg	3.5
Anthracene	ND	22	ug/kg	2.2
Fluoranthene	ND	22	ug/kg	2.4
Pyrene	ND	22	ug/kg	2.2
Benzo(a)anthracene	ND	22	ug/kg	2.8
Chrysene	ND	22	ug/kg	2.6
Benzo(b)fluoranthene	ND	22	ug/kg	3.5
Benzo(k)fluoranthene	ND	22	ug/kg	4.5
Benzo(a)pyrene	ND	22	ug/kg	2.2
Indeno(1,2,3-cd)pyrene	ND	22	ug/kg	2.3
Dibenzo(a,h)anthracene	ND	22	ug/kg	2.5
Benzo(ghi)perylene	ND	22	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	48	(27 - 110)
Terphenyl-d14	59	(21 - 130)
2-Fluorobiphenyl	56	(28 - 108)
2-Fluorophenol	42	(28 - 107)
Phenol-d5	46	(30 - 112)
2,4,6-Tribromophenol	66	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-005	Work Order #...:	L5QX31AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 11:25	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	10:19		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	30	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	24	ug/kg	2.0
Acenaphthylene	ND	24	ug/kg	2.7
Acenaphthene	ND	24	ug/kg	2.3
Fluorene	ND	24	ug/kg	3.1
Phenanthrene	ND	24	ug/kg	3.8
Anthracene	ND	24	ug/kg	2.3
Fluoranthene	**8.0 J**	**24**	**ug/kg**	**2.5**
Pyrene	**6.2 J**	**24**	**ug/kg**	**2.4**
Benzo(a)anthracene	**5.6 J**	**24**	**ug/kg**	**3.0**
Chrysene	ND	24	ug/kg	2.8
Benzo(b)fluoranthene	ND	24	ug/kg	3.7
Benzo(k)fluoranthene	ND	24	ug/kg	4.8
Benzo(a)pyrene	ND	24	ug/kg	2.4
Indeno(1,2,3-cd)pyrene	ND	24	ug/kg	2.4
Dibenzo(a,h)anthracene	ND	24	ug/kg	2.6
Benzo(ghi)perylene	ND	24	ug/kg	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	45	(27 - 110)
Terphenyl-d14	51	(21 - 130)
2-Fluorobiphenyl	48	(28 - 108)
2-Fluorophenol	39	(28 - 107)
Phenol-d5	44	(30 - 112)
2,4,6-Tribromophenol	65	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-008	Work Order #...:	L5QX71AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 13:35	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	11:17		
Dilution Factor:	2.49	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	60	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	41	ug/kg	3.5
Acenaphthylene	ND	41	ug/kg	4.7
Acenaphthene	ND	41	ug/kg	3.9
Fluorene	ND	41	ug/kg	5.4
Phenanthrene	ND	41	ug/kg	6.5
Anthracene	ND	41	ug/kg	4.0
Fluoranthene	ND	41	ug/kg	4.4
Pyrene	ND	41	ug/kg	4.2
Benzo(a)anthracene	ND	41	ug/kg	5.1
Chrysene	ND	41	ug/kg	4.9
Benzo(b)fluoranthene	ND	41	ug/kg	6.5
Benzo(k)fluoranthene	ND	41	ug/kg	8.3
Benzo(a)pyrene	ND	41	ug/kg	4.1
Indeno(1,2,3-cd)pyrene	ND	41	ug/kg	4.2
Dibenzo(a,h)anthracene	ND	41	ug/kg	4.6
Benzo(ghi)perylene	ND	41	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	63	(28 - 108)
2-Fluorophenol	61	(28 - 107)
Phenol-d5	56	(30 - 112)
2,4,6-Tribromophenol	72	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-009	Work Order #...:	L5QX81AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 13:40	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	11:37		
Dilution Factor:	2.49	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	54	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	36	ug/kg	3.1
Acenaphthylene	ND	36	ug/kg	4.2
Acenaphthene	ND	36	ug/kg	3.5
Fluorene	ND	36	ug/kg	4.8
Phenanthrene	ND	36	ug/kg	5.8
Anthracene	ND	36	ug/kg	3.6
Fluoranthene	ND	36	ug/kg	3.9
Pyrene	ND	36	ug/kg	3.7
Benzo(a)anthracene	ND	36	ug/kg	4.5
Chrysene	ND	36	ug/kg	4.3
Benzo(b)fluoranthene	ND	36	ug/kg	5.7
Benzo(k)fluoranthene	ND	36	ug/kg	7.3
Benzo(a)pyrene	ND	36	ug/kg	3.6
Indeno(1,2,3-cd)pyrene	ND	36	ug/kg	3.7
Dibenzo(a,h)anthracene	ND	36	ug/kg	4.0
Benzo(ghi)perylene	ND	36	ug/kg	3.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	91	(27 - 110)
Terphenyl-d14	77	(21 - 130)
2-Fluorobiphenyl	84	(28 - 108)
2-Fluorophenol	89	(28 - 107)
Phenol-d5	82	(30 - 112)
2,4,6-Tribromophenol	83	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-010	Work Order #...:	L5QX91AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 13:45	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	11:56		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	40	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	28	ug/kg	2.4
Acenaphthylene	ND	28	ug/kg	3.2
Acenaphthene	ND	28	ug/kg	2.7
Fluorene	ND	28	ug/kg	3.7
Phenanthrene	ND	28	ug/kg	4.4
Anthracene	ND	28	ug/kg	2.7
Fluoranthene	ND	28	ug/kg	3.0
Pyrene	ND	28	ug/kg	2.8
Benzo(a)anthracene	ND	28	ug/kg	3.5
Chrysene	ND	28	ug/kg	3.3
Benzo(b)fluoranthene	ND	28	ug/kg	4.4
Benzo(k)fluoranthene	ND	28	ug/kg	5.7
Benzo(a)pyrene	ND	28	ug/kg	2.8
Indeno(1,2,3-cd)pyrene	ND	28	ug/kg	2.9
Dibenzo(a,h)anthracene	ND	28	ug/kg	3.1
Benzo(ghi)perylene	ND	28	ug/kg	2.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	108	(27 - 110)
Terphenyl-d14	99	(21 - 130)
2-Fluorobiphenyl	107	(28 - 108)
2-Fluorophenol	97	(28 - 107)
Phenol-d5	93	(30 - 112)
2,4,6-Tribromophenol	108	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-007	Work Order #...:	L5QX61AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 13:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	10:58		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	64	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	47	ug/kg	4.0
Acenaphthylene	ND	47	ug/kg	5.3
Acenaphthene	ND	47	ug/kg	4.5
Fluorene	ND	47	ug/kg	6.1
Phenanthrene	ND	47	ug/kg	7.4
Anthracene	ND	47	ug/kg	4.6
Fluoranthene	**41 J**	**47**	**ug/kg**	**5.0**
Pyrene	**28 J**	**47**	**ug/kg**	**4.7**
Benzo(a)anthracene	**16 J**	**47**	**ug/kg**	**5.8**
Chrysene	**21 J**	**47**	**ug/kg**	**5.5**
Benzo(b)fluoranthene	**27 J**	**47**	**ug/kg**	**7.3**
Benzo(k)fluoranthene	**9.7 J**	**47**	**ug/kg**	**9.4**
Benzo(a)pyrene	**22 J**	**47**	**ug/kg**	**4.7**
Indeno(1,2,3-cd)pyrene	**82**	**47**	**ug/kg**	**4.8**
Dibenzo(a,h)anthracene	ND	47	ug/kg	5.2
Benzo(ghi)perylene	**67**	**47**	**ug/kg**	**4.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	82	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	71	(28 - 108)
2-Fluorophenol	77	(28 - 107)
Phenol-d5	71	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-012	Work Order #...:	L5Q0D1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:25	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	12:35		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	73	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	86	62	ug/kg	5.3
Acenaphthylene	47 J	62	ug/kg	7.0
Acenaphthene	22 J	62	ug/kg	5.9
Fluorene	37 J	62	ug/kg	8.1
Phenanthrene	190	62	ug/kg	9.8
Anthracene	75	62	ug/kg	6.0
Fluoranthene	500	62	ug/kg	6.6
Pyrene	360	62	ug/kg	6.2
Benzo(a)anthracene	190	62	ug/kg	7.7
Chrysene	220	62	ug/kg	7.3
Benzo(b)fluoranthene	370	62	ug/kg	9.7
Benzo(k)fluoranthene	ND	62	ug/kg	12
Benzo(a)pyrene	210	62	ug/kg	6.1
Indeno(1,2,3-cd)pyrene	230	62	ug/kg	6.3
Dibenzo(a,h)anthracene	120	62	ug/kg	6.8
Benzo(ghi)perylene	240	62	ug/kg	6.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	86	(27 - 110)
Terphenyl-d14	77	(21 - 130)
2-Fluorobiphenyl	82	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	80	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-013	Work Order #...:	L5Q0F1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	12:55		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	61	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	43	ug/kg	3.7
Acenaphthylene	**11 J**	**43**	**ug/kg**	**4.9**
Acenaphthene	ND	43	ug/kg	4.1
Fluorene	ND	43	ug/kg	5.6
Phenanthrene	**40 J**	**43**	**ug/kg**	**6.8**
Anthracene	**17 J**	**43**	**ug/kg**	**4.2**
Fluoranthene	**150**	**43**	**ug/kg**	**4.6**
Pyrene	**100**	**43**	**ug/kg**	**4.3**
Benzo(a)anthracene	**48**	**43**	**ug/kg**	**5.3**
Chrysene	**90**	**43**	**ug/kg**	**5.1**
Benzo(b)fluoranthene	**67**	**43**	**ug/kg**	**6.7**
Benzo(k)fluoranthene	ND	43	ug/kg	8.6
Benzo(a)pyrene	**34 J**	**43**	**ug/kg**	**4.3**
Indeno(1,2,3-cd)pyrene	**82**	**43**	**ug/kg**	**4.4**
Dibenzo(a,h)anthracene	ND	43	ug/kg	4.7
Benzo(ghi)perylene	**80**	**43**	**ug/kg**	**4.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	59	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	64	(28 - 107)
Phenol-d5	64	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-014	Work Order #...:	L5Q0K1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:35	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	13:14		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	59	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	41	ug/kg	3.5
Acenaphthylene	ND	41	ug/kg	4.7
Acenaphthene	ND	41	ug/kg	3.9
Fluorene	ND	41	ug/kg	5.4
Phenanthrene	ND	41	ug/kg	6.5
Anthracene	ND	41	ug/kg	4.0
Fluoranthene	ND	41	ug/kg	4.4
Pyrene	ND	41	ug/kg	4.1
Benzo(a)anthracene	ND	41	ug/kg	5.1
Chrysene	ND	41	ug/kg	4.9
Benzo(b)fluoranthene	ND	41	ug/kg	6.4
Benzo(k)fluoranthene	ND	41	ug/kg	8.2
Benzo(a)pyrene	ND	41	ug/kg	4.1
Indeno(1,2,3-cd)pyrene	ND	41	ug/kg	4.2
Dibenzo(a,h)anthracene	ND	41	ug/kg	4.5
Benzo(ghi)perylene	ND	41	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	67	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-011	Work Order #...:	L5Q0C1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:20	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	12:16		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	77	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	53 J	72	ug/kg	6.2
Acenaphthylene	38 J	72	ug/kg	8.2
Acenaphthene	ND	72	ug/kg	6.9
Fluorene	23 J	72	ug/kg	9.4
Phenanthrene	120	72	ug/kg	11
Anthracene	49 J	72	ug/kg	7.0
Fluoranthene	370	72	ug/kg	7.7
Pyrene	250	72	ug/kg	7.2
Benzo(a)anthracene	130	72	ug/kg	9.0
Chrysene	190	72	ug/kg	8.5
Benzo(b)fluoranthene	320	72	ug/kg	11
Benzo(k)fluoranthene	ND	72	ug/kg	14
Benzo(a)pyrene	170	72	ug/kg	7.2
Indeno(1,2,3-cd)pyrene	240	72	ug/kg	7.4
Dibenzo(a,h)anthracene	130	72	ug/kg	8.0
Benzo(ghi)perylene	250	72	ug/kg	7.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	78	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	71	(30 - 112)
2,4,6-Tribromophenol	82	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-01

GC Semivolatiles

Lot-Sample #...:	C0H180480-002	**Work Order #...:**	L5QX01AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	17:12		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	62	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.2
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.1
Aroclor 1260	**1000**	**22**	**ug/kg**	**3.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	85	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

GC Semivolatiles

Lot-Sample #...:	C0H180480-003	**Work Order #...:**	L5QX11AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	17:38		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	58	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	3.0
Aroclor 1221	ND	20	ug/kg	3.8
Aroclor 1232	ND	20	ug/kg	3.4
Aroclor 1242	ND	20	ug/kg	3.3
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.8
Aroclor 1260	**400**	**20**	**ug/kg**	**2.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	86	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

GC Semivolatiles

Lot-Sample #...:	C0H180480-004	Work Order #...:	L5QX21AD	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/18/10	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0232359	Analysis Time..:	18:03		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	43	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.2
Aroclor 1221	ND	15	ug/kg	2.8
Aroclor 1232	ND	15	ug/kg	2.5
Aroclor 1242	ND	15	ug/kg	2.4
Aroclor 1248	ND	15	ug/kg	1.4
Aroclor 1254	ND	15	ug/kg	2.1
Aroclor 1260	ND	15	ug/kg	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	124	(35 - 140)
Decachlorobiphenyl	87	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-SS

GC Semivolatiles

Lot-Sample #...:	C0H180480-001	**Work Order #...:**	L5QXW1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	16:47		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	73	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	31	ug/kg	4.6
Aroclor 1221	ND	31	ug/kg	5.8
Aroclor 1232	ND	31	ug/kg	5.2
Aroclor 1242	ND	31	ug/kg	5.0
Aroclor 1248	ND	31	ug/kg	2.9
Aroclor 1254	ND	31	ug/kg	4.4
Aroclor 1260	**690**	**31**	**ug/kg**	**4.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	128	(35 - 140)
Decachlorobiphenyl	96	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-01

GC Semivolatiles

Lot-Sample #...:	C0H180480-006	Work Order #...:	L5QX41AD	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/18/10	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0232359	Analysis Time..:	18:54		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	25	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.6
Aroclor 1221	ND	11	ug/kg	2.1
Aroclor 1232	ND	11	ug/kg	1.9
Aroclor 1242	ND	11	ug/kg	1.8
Aroclor 1248	ND	11	ug/kg	1.0
Aroclor 1254	ND	11	ug/kg	1.6
Aroclor 1260	ND	11	ug/kg	1.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	132	(35 - 140)
Decachlorobiphenyl	106	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-SS

GC Semivolatiles

Lot-Sample #...:	C0H180480-005	**Work Order #...:**	L5QX31AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	18:29		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	30	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.8
Aroclor 1221	ND	12	ug/kg	2.3
Aroclor 1232	ND	12	ug/kg	2.0
Aroclor 1242	ND	12	ug/kg	1.9
Aroclor 1248	ND	12	ug/kg	1.1
Aroclor 1254	ND	12	ug/kg	1.7
Aroclor 1260	ND	12	ug/kg	1.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	132	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-01

GC Semivolatiles

Lot-Sample #...:	C0H180480-008	**Work Order #...:**	L5QX71AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	19:45		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	60	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	21	ug/kg	3.1
Aroclor 1221	ND	21	ug/kg	3.9
Aroclor 1232	ND	21	ug/kg	3.5
Aroclor 1242	ND	21	ug/kg	3.4
Aroclor 1248	ND	21	ug/kg	1.9
Aroclor 1254	ND	21	ug/kg	2.9
Aroclor 1260	ND	21	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	123	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-02

GC Semivolatiles

Lot-Sample #...:	C0H180480-009	Work Order #...:	L5QX81AD	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/18/10	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0232359	Analysis Time..:	20:10		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	54	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	18	ug/kg	2.7
Aroclor 1221	ND	18	ug/kg	3.5
Aroclor 1232	ND	18	ug/kg	3.1
Aroclor 1242	ND	18	ug/kg	3.0
Aroclor 1248	ND	18	ug/kg	1.7
Aroclor 1254	ND	18	ug/kg	2.6
Aroclor 1260	ND	18	ug/kg	2.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	128	(35 - 140)
Decachlorobiphenyl	106	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-04

GC Semivolatiles

Lot-Sample #...: C0H180480-010	**Work Order #...:** L5QX91AD	**Matrix.....:** SOLID
Date Sampled...: 08/17/10	**Date Received..:** 08/18/10	**MS Run #.....:**
Prep Date.....: 08/20/10	**Analysis Date..:** 08/26/10	
Prep Batch #...: 0232359	**Analysis Time..:** 20:36	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 40	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.1
Aroclor 1221	ND	14	ug/kg	2.7
Aroclor 1232	ND	14	ug/kg	2.4
Aroclor 1242	ND	14	ug/kg	2.3
Aroclor 1248	ND	14	ug/kg	1.3
Aroclor 1254	ND	14	ug/kg	2.0
Aroclor 1260	ND	14	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	130	(35 - 140)
Decachlorobiphenyl	102	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-SS

GC Semivolatiles

Lot-Sample #...:	C0H180480-007	**Work Order #...:**	L5QX61AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	19:20		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	64	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.5
Aroclor 1221	ND	23	ug/kg	4.4
Aroclor 1232	ND	23	ug/kg	4.0
Aroclor 1242	ND	23	ug/kg	3.8
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.3
Aroclor 1260	**44**	23	**ug/kg**	**3.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	130	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-01

GC Semivolatiles

Lot-Sample #...:	C0H180480-012	**Work Order #...:**	L5Q0D1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	21:27		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	73	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	30	ug/kg	4.5
Aroclor 1221	ND	30	ug/kg	5.7
Aroclor 1232	ND	30	ug/kg	5.1
Aroclor 1242	ND	30	ug/kg	4.9
Aroclor 1248	ND	30	ug/kg	2.8
Aroclor 1254	ND	30	ug/kg	4.3
Aroclor 1260	**210**	**30**	**ug/kg**	**4.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	129	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-02

GC Semivolatiles

Lot-Sample #...:	C0H180480-013	**Work Order #...:**	L5Q0F1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	21:52		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	61	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	21	ug/kg	3.2
Aroclor 1221	ND	21	ug/kg	4.1
Aroclor 1232	ND	21	ug/kg	3.7
Aroclor 1242	ND	21	ug/kg	3.5
Aroclor 1248	ND	21	ug/kg	2.0
Aroclor 1254	ND	21	ug/kg	3.0
Aroclor 1260	ND	21	ug/kg	3.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	133	(35 - 140)
Decachlorobiphenyl	104	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-04

GC Semivolatiles

Lot-Sample #...:	C0H180480-014	**Work Order #...:**	L5Q0K1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	22:17		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	59	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	3.0
Aroclor 1221	ND	20	ug/kg	3.9
Aroclor 1232	ND	20	ug/kg	3.5
Aroclor 1242	ND	20	ug/kg	3.3
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.9
Aroclor 1260	ND	20	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	129	(35 - 140)
Decachlorobiphenyl	104	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-SS

GC Semivolatiles

Lot-Sample #...:	C0H180480-011	**Work Order #...:**	L5Q0C1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/18/10	**MS Run #.....:**	
Prep Date.....:	08/20/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0232359	**Analysis Time..:**	21:01		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	77	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	36	ug/kg	5.3
Aroclor 1221	ND	36	ug/kg	6.8
Aroclor 1232	ND	36	ug/kg	6.1
Aroclor 1242	ND	36	ug/kg	5.8
Aroclor 1248	ND	36	ug/kg	3.4
Aroclor 1254	ND	36	ug/kg	5.1
Aroclor 1260	**620**	**36**	**ug/kg**	**5.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	135	(35 - 140)
Decachlorobiphenyl	100	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-SS

TOTAL Metals

Lot-Sample #...: C0H180480-001 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 73

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**0.43**	**0.061**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5QXW1AF**
		Dilution Factor: 0.5		Analysis Time..: 08:48	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.020	
Prep Batch #...: 0236124						
Silver	ND	0.0043	umoles/gm	EPA SEM	08/24-08/25/10	L5QXW1A5
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00050	
Chromium	**0.71 J**	**0.0088**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1A4**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00077	
Cadmium	**0.034**	**0.0041**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1A6**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00013	
Copper	**0.086**	**0.036**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1A7**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0032	
Nickel	**0.17**	**0.063**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1A8**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0018	
Lead	**0.36**	**0.0027**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1A9**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00088	
Zinc	**3.9 J**	**0.14**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QXW1CA**
		Dilution Factor: 1		Analysis Time..: 20:36	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.010	
Prep Batch #...: 0239078						
Silver	**2.8**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QXW1AG**
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0072	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-SS

TOTAL Metals

Lot-Sample #...: C0H180480-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	8.9	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AH
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.033	
Beryllium	1.8	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AJ
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Cadmium	5.2	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AK
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.013	
Chromium	110 J	0.37	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AL
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.011	
Copper	116 J	0.37	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AM
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.061	
Nickel	36.4	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AN
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.021	
Lead	111 E	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AP
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0070	
Antimony	1.4 E	0.37	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AQ
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0048	
Selenium	1.8	0.92	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AR
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.092	
Thallium	0.24 E	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AT
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0037	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-SS

TOTAL Metals

Lot-Sample #...: C0H180480-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	382	0.92	mg/kg	SW846 6020	08/27-08/28/10	L5QXW1AU

Dilution Factor: 0.5 Analysis Time..: 20:55 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0239051 MDL.....: 0.12

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-01

TOTAL Metals

Lot-Sample #...: C0H180480-002 Matrix.....: SOLID
Date Sampled...: 08/17/10 Date Received..: 08/18/10
% Moisture.....: 62

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	2.0	0.088	mg/kg	SW846 7471A	08/24/10	L5QX01AK
		Dilution Factor: 1		Analysis Time..: 08:53	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.029	
Prep Batch #...: 0236124						
Silver	0.00095 B	0.0031	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A2
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00036	
Chromium	1.6 J	0.0064	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A1
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00056	
Cadmium	0.085	0.0030	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A3
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000096	
Copper	0.037	0.026	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A4
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0023	
Nickel	0.18	0.045	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A5
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0013	
Lead	0.66	0.0019	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A6
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00063	
Zinc	4.2 J	0.10	umoles/gm	EPA SEM	08/24-08/25/10	L5QX01A7
		Dilution Factor: 1		Analysis Time..: 20:20	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0075	
Prep Batch #...: 0239078						
Silver	8.9	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AL
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-01

TOTAL Metals

Lot-Sample #...: C0H180480-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	7.6	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AM
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.024	
Beryllium	1.6	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AN
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.010	
Cadmium	12.5	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AP
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0093	
Chromium	212 J	0.27	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AQ
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0081	
Copper	130 J	0.27	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AR
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.044	
Nickel	41.8	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AT
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.015	
Lead	257	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AU
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0050	
Antimony	1.4	0.27	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AV
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0035	
Selenium	1.8	0.66	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AW
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.067	
Thallium	0.26	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX01AX
		Dilution Factor: 0.5		Analysis Time..: 21:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0027	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-01

TOTAL Metals

Lot-Sample #...: C0H180480-002 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**386**	**0.66**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX01A0**

Dilution Factor: 0.5 Analysis Time..: 21:26 Analyst ID.....: 400149
Instrument ID..: ICPMS2 MS Run #.....: 0239051 MDL.....: 0.086

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

TOTAL Metals

Lot-Sample #...: C0H180480-003
Date Sampled...: 08/17/10 Date Received..: 08/18/10 Matrix.....: SOLID
% Moisture.....: 58

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**4.7**	**0.20**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5QX11AK**
		Dilution Factor: 2.5		Analysis Time..: 10:06	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.065	
Prep Batch #...: 0236124						
Silver	**0.00066 B**	**0.0028**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QX11A2**
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00032	
Chromium	**5.9 J**	**0.0058**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QX11A1**
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00050	
Cadmium	**0.22**	**0.0027**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QX11A3**
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000087	
Copper	ND	0.024	umoles/gm	EPA SEM	08/24-08/25/10	L5QX11A4
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0021	
Nickel	**0.19**	**0.041**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QX11A5**
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0012	
Lead	**0.47**	**0.0017**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L5QX11A6**
		Dilution Factor: 1		Analysis Time..: 20:25	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00057	
Zinc	**5.3 J**	**0.18**	**umoles/gm**	**EPA SEM**	**08/24-08/26/10**	**L5QX11A7**
		Dilution Factor: 2		Analysis Time..: 02:01	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.014	
Prep Batch #...: 0239078						
Silver	**29.3**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX11AL**
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0047	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

TOTAL Metals

Lot-Sample #...: C0H180480-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	6.5	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AM
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.022	
Beryllium	1.8	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AN
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0090	
Cadmium	38.7	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AP
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0084	
Chromium	690 J	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AQ
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0073	
Copper	82.7 J	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AR
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.040	
Nickel	46.1	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AT
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Lead	195	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AU
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0046	
Antimony	3.0	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AV
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0031	
Selenium	1.9	0.60	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AW
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.060	
Thallium	0.32	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX11AX
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0024	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

TOTAL Metals

Lot-Sample #...: C0H180480-003 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**524**	**0.60**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX11A0**
		Dilution Factor: 0.5		Analysis Time..: 21:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.078	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

TOTAL Metals

Lot-Sample #...: C0H180480-004 Matrix.....: SOLID
Date Sampled...: 08/17/10 Date Received..: 08/18/10
% Moisture.....: 43

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	0.099	0.029	mg/kg	SW846 7471A	08/24/10	L5QX21AE
		Dilution Factor: 0.5		Analysis Time..: 09:00	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.0096	
Prep Batch #...: 0236124						
Silver	0.0055	0.0020	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A4
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00024	
Chromium	0.18 J	0.0042	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A3
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00037	
Cadmium	0.0068	0.0020	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A5
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000063	
Copper	0.064	0.017	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A6
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Nickel	0.024 B	0.030	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A7
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00086	
Lead	0.033	0.0013	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A8
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00042	
Zinc	0.42 J	0.067	umoles/gm	EPA SEM	08/24-08/25/10	L5QX21A9
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0050	
Prep Batch #...: 0239078						
Silver	1.7	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AF
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0034	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

TOTAL Metals

Lot-Sample #...: C0H180480-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	3.3	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AG
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.016	
Beryllium	1.5	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AH
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0066	
Cadmium	1.1	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AJ
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0062	
Chromium	44.7 J	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AK
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0054	
Copper	15.9 J	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AL
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.029	
Nickel	15.4	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AM
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.010	
Lead	13.7	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AN
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0034	
Antimony	0.25	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AP
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0023	
Selenium	0.89	0.44	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AQ
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.044	
Thallium	0.12	0.088	mg/kg	SW846 6020	08/27-08/28/10	L5QX21AR
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0018	

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Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

TOTAL Metals

Lot-Sample #...: C0H180480-004 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**51.2**	**0.44**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX21AT**
		Dilution Factor: 0.5		Analysis Time..: 21:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.057	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-SS

TOTAL Metals

Lot-Sample #...: C0H180480-005
Date Sampled...: 08/17/10 Date Received..: 08/18/10 Matrix.....: SOLID
% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	ND	0.023	mg/kg	SW846 7471A	08/24/10	L5QX31AE
		Dilution Factor: 0.5		Analysis Time..: 09:02	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.0078	
Prep Batch #...: 0239078						
Silver	**0.029 B**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AF**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0028	
Arsenic	**3.6**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AG**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.013	
Beryllium	**2.4**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AH**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0053	
Cadmium	**0.18**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AJ**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0050	
Chromium	**21.0 J**	**0.14**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AK**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0043	
Copper	**21.7 J**	**0.14**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AL**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.023	
Nickel	**15.0**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AM**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0080	
Lead	**6.6**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AN**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0027	

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Tetra Tech NUS, Inc

Client Sample ID: SD-91-SS

TOTAL Metals

Lot-Sample #...: C0H180480-005 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.20**	**0.14**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AP**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0019	
Selenium	**0.76**	**0.36**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AQ**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.036	
Thallium	**0.084**	**0.071**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AR**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0014	
Zinc	**40.2**	**0.36**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX31AT**
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.046	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-91-01

TOTAL Metals

Lot-Sample #...: C0H180480-006 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	ND	0.022	mg/kg	SW846 7471A	08/24/10	L5QX41AE
		Dilution Factor: 0.5		Analysis Time..: 09:04	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.0072	
Prep Batch #...: 0239078						
Silver	**0.025 B**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AF**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0026	
Arsenic	**3.6**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AG**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.012	
Beryllium	**2.5**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AH**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0050	
Cadmium	**0.18**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AJ**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0047	
Chromium	**17.6 J**	**0.13**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AK**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0041	
Copper	**23.0 J**	**0.13**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AL**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.022	
Nickel	**20.4**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AM**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0075	
Lead	**5.5**	**0.066**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX41AN**
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0025	

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Tetra Tech NUS, Inc

Client Sample ID: SD-91-01

TOTAL Metals

Lot-Sample #...: C0H180480-006 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.18	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5QX41AP
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0017	
Selenium	0.66	0.33	mg/kg	SW846 6020	08/27-08/28/10	L5QX41AQ
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.033	
Thallium	0.065 B	0.066	mg/kg	SW846 6020	08/27-08/28/10	L5QX41AR
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0013	
Zinc	44.7	0.33	mg/kg	SW846 6020	08/27-08/28/10	L5QX41AT
		Dilution Factor: 0.5		Analysis Time..: 21:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.043	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-SS

TOTAL Metals

Lot-Sample #...: C0H180480-007 Matrix.....: SOLID
Date Sampled...: 08/17/10 Date Received..: 08/18/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	0.056	0.046	mg/kg	SW846 7471A	08/24/10	L5QX61AE
		Dilution Factor: 0.5		Analysis Time..: 09:05	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.015	
Prep Batch #...: 0239078						
Silver	0.15	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AF
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0054	
Arsenic	4.6	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AG
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.025	
Beryllium	1.7	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AH
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.010	
Cadmium	0.88	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AJ
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0098	
Chromium	30.9 J	0.28	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AK
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0085	
Copper	25.1 J	0.28	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AL
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.046	
Nickel	20.2	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AM
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.016	
Lead	15.9	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AN
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0053	

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Tetra Tech NUS, Inc

Client Sample ID: SD-94-SS

TOTAL Metals

Lot-Sample #...: C0H180480-007 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.11 B	0.28	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AP
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0036	
Selenium	1.2	0.70	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AQ
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.070	
Thallium	0.16	0.14	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AR
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0028	
Zinc	77.3	0.70	mg/kg	SW846 6020	08/27-08/28/10	L5QX61AT
		Dilution Factor: 0.5		Analysis Time..: 21:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.091	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-01

TOTAL Metals

Lot-Sample #...: C0H180480-008 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 60

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**0.028 B**	**0.041**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5QX71AE**
		Dilution Factor: 0.5		Analysis Time..: 09:07	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.013	
Prep Batch #...: 0239078						
Silver	**0.065 B**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AF**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0048	
Arsenic	**4.2**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AG**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.022	
Beryllium	**1.7**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AH**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0093	
Cadmium	**0.37**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AJ**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0087	
Chromium	**26.0 J**	**0.25**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AK**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0075	
Copper	**18.4 J**	**0.25**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AL**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.041	
Nickel	**18.7**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AM**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Lead	**9.0**	**0.12**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX71AN**
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0047	

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Tetra Tech NUS, Inc

Client Sample ID: SD-94-01

TOTAL Metals

Lot-Sample #...: C0H180480-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.076 B	0.25	mg/kg	SW846 6020	08/27-08/28/10	L5QX71AP
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0032	
Selenium	1.0	0.62	mg/kg	SW846 6020	08/27-08/28/10	L5QX71AQ
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.062	
Thallium	0.15	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5QX71AR
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0025	
Zinc	56.0	0.62	mg/kg	SW846 6020	08/27-08/28/10	L5QX71AT
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.080	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-02

TOTAL Metals

Lot-Sample #...: C0H180480-009 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 54

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**0.024 B**	**0.036**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5QX81AE**
		Dilution Factor: 0.5		Analysis Time..: 09:08	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.012	
Prep Batch #...: 0239078						
Silver	**0.055 B**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AF**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0043	
Arsenic	**4.4**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AG**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.020	
Beryllium	**1.7**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AH**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0082	
Cadmium	**0.37**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AJ**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0076	
Chromium	**24.7 J**	**0.22**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AK**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0067	
Copper	**15.9 J**	**0.22**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AL**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.036	
Nickel	**17.0**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AM**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.012	
Lead	**7.4**	**0.11**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX81AN**
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0042	

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Tetra Tech NUS, Inc

Client Sample ID: SD-94-02

TOTAL Metals

Lot-Sample #...: C0H180480-009 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.048 B	0.22	mg/kg	SW846 6020	08/27-08/28/10	L5QX81AP
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0028	
Selenium	1.0	0.55	mg/kg	SW846 6020	08/27-08/28/10	L5QX81AQ
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.055	
Thallium	0.12	0.11	mg/kg	SW846 6020	08/27-08/28/10	L5QX81AR
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0022	
Zinc	52.8	0.55	mg/kg	SW846 6020	08/27-08/28/10	L5QX81AT
		Dilution Factor: 0.5		Analysis Time..: 21:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.071	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-94-04

TOTAL Metals

Lot-Sample #...: C0H180480-010 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	ND	0.028	mg/kg	SW846 7471A	08/24/10	L5QX91AE
		Dilution Factor: 0.5		Analysis Time..: 09:14	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.0091	
Prep Batch #...: 0239078						
Silver	**0.039 B**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AF**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0033	
Arsenic	**5.7**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AG**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.015	
Beryllium	**3.4**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AH**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0063	
Cadmium	**0.32**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AJ**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0059	
Chromium	**27.7 J**	**0.17**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AK**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0051	
Copper	**18.9 J**	**0.17**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AL**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.028	
Nickel	**21.8**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AM**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0095	
Lead	**5.7**	**0.084**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5QX91AN**
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-94-04

TOTAL Metals

Lot-Sample #...: C0H180480-010 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.20	0.17	mg/kg	SW846 6020	08/27-08/28/10	L5QX91AP
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0022	
Selenium	0.97	0.42	mg/kg	SW846 6020	08/27-08/28/10	L5QX91AQ
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.042	
Thallium	0.077 B	0.084	mg/kg	SW846 6020	08/27-08/28/10	L5QX91AR
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0017	
Zinc	56.3	0.42	mg/kg	SW846 6020	08/27-08/28/10	L5QX91AT
		Dilution Factor: 0.5		Analysis Time..: 22:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.054	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-SS

TOTAL Metals

Lot-Sample #...: C0H180480-011 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 77

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**0.52**	**0.071**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5Q0C1AE**
		Dilution Factor: 0.5		Analysis Time..: 09:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.023	
Prep Batch #...: 0239078						
Silver	**2.3**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AF**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0084	
Arsenic	**10.9**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AG**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.039	
Beryllium	**2.1**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AH**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.016	
Cadmium	**6.7**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AJ**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.015	
Chromium	**171 J**	**0.43**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AK**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.013	
Copper	**145 J**	**0.43**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AL**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.071	
Nickel	**43.0**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AM**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.024	
Lead	**141**	**0.21**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0C1AN**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0082	

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Tetra Tech NUS, Inc

Client Sample ID: SD-97-SS

TOTAL Metals

Lot-Sample #...: C0H180480-011 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.71	0.43	mg/kg	SW846 6020	08/27-08/28/10	L5Q0C1AP
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0056	
Selenium	2.1	1.1	mg/kg	SW846 6020	08/27-08/28/10	L5Q0C1AQ
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.11	
Thallium	0.27	0.21	mg/kg	SW846 6020	08/27-08/28/10	L5Q0C1AR
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0043	
Zinc	415	1.1	mg/kg	SW846 6020	08/27-08/28/10	L5Q0C1AT
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.14	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-01

TOTAL Metals

Lot-Sample #...: C0H180480-012 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10
% Moisture.....: 73

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	**0.99**	**0.061**	**mg/kg**	**SW846 7471A**	**08/24/10**	**L5Q0D1AE**
		Dilution Factor: 0.5		Analysis Time..: 09:17	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.020	
Prep Batch #...: 0239078						
Silver	**5.0**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AF**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0072	
Arsenic	**11.0**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AG**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.033	
Beryllium	**2.6**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AH**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Cadmium	**22.0**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AJ**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.013	
Chromium	**423 J**	**0.37**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AK**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.011	
Copper	**110 J**	**0.37**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AL**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.061	
Nickel	**46.4**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AM**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.021	
Lead	**149**	**0.18**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L5Q0D1AN**
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0070	

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Tetra Tech NUS, Inc

Client Sample ID: SD-97-01

TOTAL Metals

Lot-Sample #...: C0H180480-012 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.0	0.37	mg/kg	SW846 6020	08/27-08/28/10	L5Q0D1AP
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0048	
Selenium	2.2	0.92	mg/kg	SW846 6020	08/27-08/28/10	L5Q0D1AQ
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.092	
Thallium	0.30	0.18	mg/kg	SW846 6020	08/27-08/28/10	L5Q0D1AR
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0037	
Zinc	439	0.92	mg/kg	SW846 6020	08/27-08/28/10	L5Q0D1AT
		Dilution Factor: 0.5		Analysis Time..: 22:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.12	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-02

TOTAL Metals

Lot-Sample #...: C0H180480-013
Date Sampled...: 08/17/10 Date Received..: 08/18/10
% Moisture.....: 61
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	0.10	0.042	mg/kg	SW846 7471A	08/24/10	L5Q0F1AE
		Dilution Factor: 0.5		Analysis Time..: 09:19	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.014	
Prep Batch #...: 0239078						
Silver	0.73	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AF
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0050	
Arsenic	6.2	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AG
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.023	
Beryllium	1.8	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AH
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0096	
Cadmium	2.5	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AJ
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0090	
Chromium	80.6 J	0.26	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AK
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0078	
Copper	21.7 J	0.26	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AL
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.042	
Nickel	23.0	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AM
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Lead	24.4	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AN
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0049	

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Tetra Tech NUS, Inc

Client Sample ID: SD-97-02

TOTAL Metals

Lot-Sample #...: C0H180480-013 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.17 B	0.26	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AP
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0033	
Selenium	1.3	0.64	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AQ
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.064	
Thallium	0.17	0.13	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AR
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0026	
Zinc	102	0.64	mg/kg	SW846 6020	08/27-08/28/10	L5Q0F1AT
		Dilution Factor: 0.5		Analysis Time..: 22:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.083	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-04

TOTAL Metals

Lot-Sample #...: C0H180480-014 Matrix.....: SOLID
Date Sampled...: 08/17/10 Date Received..: 08/18/10
% Moisture.....: 59

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0236022						
Mercury	0.036 B	0.040	mg/kg	SW846 7471A	08/24/10	L5Q0K1AE
		Dilution Factor: 0.5		Analysis Time..: 09:20	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0236010	MDL.....: 0.013	
Prep Batch #...: 0239078						
Silver	0.076 B	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AF
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0048	
Arsenic	6.5	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AG
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.022	
Beryllium	1.9	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AH
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0092	
Cadmium	0.35	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AJ
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0086	
Chromium	34.1 J	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AK
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0075	
Copper	17.5 J	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AL
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.040	
Nickel	22.6	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AM
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.014	
Lead	13.7	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AN
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0046	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-97-04

TOTAL Metals

Lot-Sample #...: C0H180480-014 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.16 B	0.24	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AP
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0032	
Selenium	1.1	0.61	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AQ
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.061	
Thallium	0.16	0.12	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AR
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.0024	
Zinc	76.7	0.61	mg/kg	SW846 6020	08/27-08/28/10	L5Q0K1AT
		Dilution Factor: 0.5		Analysis Time..: 22:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0239051	MDL.....: 0.079	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0H180480

AMBIENT MICRO-MIDI ACID PURGE

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1A3	22.6	umoles/g —	0.57	1.8	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-01	C0H180480 002	L5QX01AE	19.0	umoles/g —	0.41	1.3	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-02	C0H180480 003	L5QX11AE	18.7	umoles/g —	0.37	1.2	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-04	C0H180480 004	L5QX21A2	ND	umoles/g —	0.27	0.88	1	8/24/2010 - 8/24/2010 09:05	0236079

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Lot Number: C0H180480

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1AA	27.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-01	C0H180480 002	L5QX01AF	37.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-02	C0H180480 003	L5QX11AF	41.6	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-04	C0H180480 004	L5QX21AA	56.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-91-SS	C0H180480 005	L5QX31AA	70.3	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-91-01	C0H180480 006	L5QX41AA	75.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-SS	C0H180480 007	L5QX61AA	35.8	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-01	C0H180480 008	L5QX71AA	40.4	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-02	C0H180480 009	L5QX81AA	45.8	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-04	C0H180480 010	L5QX91AA	59.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-SS	C0H180480 011	L5Q0C1AA	23.3	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-01	C0H180480 012	L5Q0D1AA	27.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-02	C0H180480 013	L5Q0F1AA	39.1	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-04	C0H180480 014	L5Q0K1AA	40.9	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0H180480
Matrix:	SOLID		

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1AC	28000	mg/kg	1980	7270	1.98	8/19/2010 - 8/21/2010 02:18	0231116
SD-90-01	C0H180480 002	L5QX01AG	35900	mg/kg	1420	5200	1.96	8/19/2010 - 8/21/2010 03:01	0231116
SD-90-02	C0H180480 003	L5QX11AG	35900	mg/kg	1280	4710	1.96	8/19/2010 - 8/21/2010 03:15	0231116

APPENDIX C
SUPPORT DOCUMENTATION

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H180480

Sample Receiving:
TestAmerica's Pittsburgh laboratory received one sample on August 18, 2010. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles :
All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

The samples were analyzed at a dilution due to matrix interference and/or concentration of compounds detected. Surrogates were diluted out for SD-90-02.

Several samples had internal area counts outside the daily control limits due to matrix interference. The samples analyzed before and after these samples had the internal area counts within the control limits verifying the instrument was operating in control.

PCBs:
There were no problems associated with the analysis.

Metals:
The serial dilution percent difference was outside the control limit for lead, antimony, and thallium for sample SD-90-SS.

Several samples were over the calibration range for mercury and required a dilution.

Sample SD-90-02 was diluted for SEM zinc.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier. Copper recovered above the reporting limit in batch 0239078. All associated samples had copper >10X the amount detected in the sample, therefore the results were reported.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H180480

Metals cont.:
The matrix spikes of sample SD-90-SS recovered below the control limit for antimony. The matrix spike recovered below the control limit for copper.

For the matrix spikes of sample SD-90-SS, lead and zinc recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

For the matrix spikes of sample SD-90-01, mercury recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

METHODS SUMMARY

C0H180480

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H180480

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5QXW	001	SD-90-SS	08/17/10	10:05
L5QX0	002	SD-90-01	08/17/10	10:07
L5QX1	003	SD-90-02	08/17/10	10:20
L5QX2	004	SD-90-04	08/17/10	10:30
L5QX3	005	SD-91-SS	08/17/10	11:25
L5QX4	006	SD-91-01	08/17/10	11:30
L5QX6	007	SD-94-SS	08/17/10	13:30
L5QX7	008	SD-94-01	08/17/10	13:35
L5QX8	009	SD-94-02	08/17/10	13:40
L5QX9	010	SD-94-04	08/17/10	13:45
L5Q0C	011	SD-97-SS	08/17/10	12:20
L5Q0D	012	SD-97-01	08/17/10	12:25
L5Q0F	013	SD-97-02	08/17/10	12:30
L5Q0K	014	SD-97-04	08/17/10	12:35

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PCB
CALIBRATION DATA

Report Date : 30-Jul-2010 09:26

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

6E
HP6890 GC-10
MR-2

Start Cal Date : 29-JUL-2010 09:45
End Cal Date : 29-JUL-2010 16:32
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m
Last Edit : 30-Jul-2010 09:18 gc10.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc10.i\07290.b\T0700721.D
Level 2: \\PITSVR06\D\chem\gc10.i\07290.b\T0700722.D
Level 3: \\PITSVR06\D\chem\gc10.i\07290.b\T0700723.D
Level 4: \\PITSVR06\D\chem\gc10.i\07290.b\T0700724.D
Level 5: \\PITSVR06\D\chem\gc10.i\07290.b\T0700725.D
Level 6: \\PITSVR06\D\chem\gc10.i\07290.b\T0700726.D
Level 7: \\PITSVR06\D\chem\gc10.i\07290.b\T0700720.D

Compound	0.05000 Level 1 / 0.02000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	271972	+++++	+++++	+++++	271972	0.000	<-
(2)	+++++ / +++++	+++++	168884	+++++	+++++	+++++	168884	0.000	<-
(3)	+++++ / +++++	+++++	592274	+++++	+++++	+++++	592274	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	234872	+++++	+++++	+++++	234872	0.000	
(2)	+++++ / +++++	+++++	264516	+++++	+++++	+++++	264516	0.000	<-
(3)	+++++ / +++++	+++++	173520	+++++	+++++	+++++	173520	0.000	<-
(4)	+++++ / +++++	+++++	242166	+++++	+++++	+++++	242166	0.000	<-
(5)	+++++ / +++++	+++++	161590	+++++	+++++	+++++	161590	0.000	<-

Report Date : 30-Jul-2010 09:26

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUL-2010 09:45
End Cal Date : 29-JUL-2010 16:32
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m
Last Edit : 30-Jul-2010 09:18 gc10.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.02000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
4 Aroclor-1016(1)	545840 / 623000	597605	570474	570960	556371	516255	568643	6.099
(2)	515700 / 461300	522300	478380	475766	449711	413741	473843	7.932
(3)	606300 / 560800	607145	571866	561145	538131	497533	563274	6.805
(4)	395680 / 361300	423330	391760	409505	404995	393533	397158	4.853
(5)	474880 / 549000	494960	453074	457784	440758	417079	469648	9.108
5 Aroclor-1242(1)	557500 / +++++	530480	503296	541300	509864	+++++	528488	4.222
(2)	509700 / +++++	508340	537080	543244	540038	+++++	527680	3.256
(3)	426200 / +++++	438840	491852	487468	509298	+++++	470732	7.670
(4)	413100 / +++++	404960	408852	422464	411138	+++++	412103	1.586
(5)	427400 / +++++	440440	513610	495712	548205	+++++	485073	10.426 D.K.
6 Aroclor-1248(1)	+++++ / +++++	+++++	721042	+++++	+++++	+++++	721042	0.000

Report Date : 30-Jul-2010 09:26

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUL-2010 09:45
End Cal Date : 29-JUL-2010 16:32
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m
Last Edit : 30-Jul-2010 09:18 gc10.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.02000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	666594	+++++	+++++	+++++	666594	0.000	<-
(3)	+++++ / +++++	+++++	793944	+++++	+++++	+++++	793944	0.000	<-
(4)	+++++ / +++++	+++++	552926	+++++	+++++	+++++	552926	0.000	<-
(5)	+++++ / +++++	+++++	454472	+++++	+++++	+++++	454472	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	903658	+++++	+++++	+++++	903658	0.000	<-
(2)	+++++ / +++++	+++++	1036298	+++++	+++++	+++++	1036298	0.000	<-
(3)	+++++ / +++++	+++++	805128	+++++	+++++	+++++	805128	0.000	<-
(4)	+++++ / +++++	+++++	629946	+++++	+++++	+++++	629946	0.000	<-
(5)	+++++ / +++++	+++++	617808	+++++	+++++	+++++	617808	0.000	<-
8 Aroclor-1260(1)	1284940 / 1415000	1283005	1197464	1183092	1114297	1041763	1217080	10.117	O.K.
(2)	1217340 / 1370100	1287150	1216892	1214692	1183574	1133131	1231840	6.198	

Report Date : 30-Jul-2010 09:26

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUL-2010 09:45
End Cal Date : 29-JUL-2010 16:32
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m
Last Edit : 30-Jul-2010 09:18 gc10.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.02000 Level 7	RRF	% RSD	
(3)	1364160	1465430	1380860	1409448	1340560	1299071	1507300	1395261	5.160	
(4)	1443080	1499095	1386492	1378220	1309202	1250366	1563300	1404251	7.665	
(5)	1120960	1109545	1048700	1093571	1037958	1021533	1223100	1093624	6.255	
9 Aroclor-1262(1)	+++++	+++++	918804	+++++	+++++	+++++	+++++	918804	0.000	
(2)	+++++	+++++	1697588	+++++	+++++	+++++	+++++	1697588	0.000	<-
(3)	+++++	+++++	1645346	+++++	+++++	+++++	+++++	1645346	0.000	<-
(4)	+++++	+++++	2237592	+++++	+++++	+++++	+++++	2237592	0.000	<-
(5)	+++++	+++++	1542116	+++++	+++++	+++++	+++++	1542116	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	4590742	+++++	+++++	+++++	+++++	4590742	0.000	
(2)	+++++	+++++	4275076	+++++	+++++	+++++	+++++	4275076	0.000	<-
(3)	+++++	+++++	3901788	+++++	+++++	+++++	+++++	3901788	0.000	<-

Report Date : 30-Jul-2010 09:26

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUL-2010 09:45
End Cal Date : 29-JUL-2010 16:32
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m
Last Edit : 30-Jul-2010 09:18 gc10.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.02000 Level 7	RRF	% RSD	
(4)	+++++	+++++	1686910	+++++	+++++	+++++	+++++	1686910	0.000	<-
$ 2 Tetrachloro-m-xylene	25631200	24810800	27965880	27618860	25815460	23891715	26032000	25966559	5.560	
$ 11 Decachlorobiphenyl	33360000	31688900	34159520	34212440	32702880	32602580	35564000	33470046	3.845	

Data File: \\PITSVR06\D\chem\gc10.i\07290.b\T0700733.D
Report Date: 30-Jul-2010 09:27

7E
HP6890 GC-10
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc10.i
Lab File ID: T0700733.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m

Injection Date: 29-JUL-2010 19:30
Init. Cal. Date(s): 29-JUL-2010 29-JUL-2010
Init. Cal. Times: 09:45 16:32
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	568643	555990	0.010	2.22520	15.00000	Averaged	
(2)	473843	478576	0.010	-0.99895	15.00000	Averaged	
(3)	563274	571110	0.010	-1.39111	15.00000	Averaged	
(4)	397158	388726	0.010	2.12297	15.00000	Averaged	
(5)	469648	506466	0.010	-7.83953	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	25966559	++++	0.000	++++	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	33470046	662080	0.010	98.02187	15.00000	Averaged	<- NA
8 Aroclor-1260 (1)	1217080	1239088	0.010	-1.80826	15.00000	Averaged	
(2)	1231840	1258218	0.010	-2.14136	15.00000	Averaged	
(3)	1395261	1550236	0.010	-11.10722	15.00000	Averaged	8.7
(4)	1404251	1273472	0.010	9.31306	15.00000	Averaged	
(5)	1093624	886366	0.010	18.95146	15.00000	Averaged	<- OK.

7/30/10

Data File: \\PITSVR06\D\chem\gc10.i\07290.b\T0801003.D
Report Date: 27-Aug-2010 13:40

7E
HP6890 GC-10
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc10.i
Lab File ID: T0801003.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m

Injection Date: 26-AUG-2010 09:59
Init. Cal. Date(s): 29-JUL-2010 29-JUL-2010
Init. Cal. Times: 09:45 16:32
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	568643	573556	0.010	-0.86390	15.00000	Averaged
(2)	473843	498200	0.010	-5.14041	15.00000	Averaged
(3)	563274	592280	0.010	-5.14949	15.00000	Averaged
(4)	397158	400260	0.010	-0.78117	15.00000	Averaged
(5)	469648	470368	0.010	-0.15334	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	25966559	29763080	0.000	-14.62081	15.00000	Averaged
$ 11 Decachlorobiphenyl	33470046	37250560	0.010	-11.29522	15.00000	Averaged
8 Aroclor-1260(1)	1217080	1285292	0.010	-5.60456	15.00000	Averaged
(2)	1231840	1280108	0.010	-3.91838	15.00000	Averaged
(3)	1395261	1453382	0.010	-4.16558	15.00000	Averaged
(4)	1404251	1478558	0.010	-5.29160	15.00000	Averaged
(5)	1093624	1138146	0.010	-4.07108	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc10.i\07290.b\T0801010.D
Report Date: 27-Aug-2010 11:39

7E
HP6890 GC-10
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc10.i
Lab File ID: T0801010.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m

Injection Date: 26-AUG-2010 16:21
Init. Cal. Date(s): 29-JUL-2010 29-JUL-2010
Init. Cal. Times: 09:45 16:32
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	568643	591050	0.010	-3.94035	15.00000	Averaged	
(2)	473843	515800	0.010	-8.85472	15.00000	Averaged	
(3)	563274	608880	0.010	-8.09654	15.00000	Averaged	
(4)	397158	413254	0.010	-4.05292	15.00000	Averaged	
(5)	469648	472354	0.010	-0.57621	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	25966559	29939600	0.000	-15.30061	15.00000	Averaged	<-
$ 11 Decachlorobiphenyl	33470046	35599040	0.010	-6.36089	15.00000	Averaged	
8 Aroclor-1260(1)	1217080	1295886	0.010	-6.47500	15.00000	Averaged	
(2)	1231840	1280030	0.010	-3.91204	15.00000	Averaged	
(3)	1395261	1474964	0.010	-5.71239	15.00000	Averaged	
(4)	1404251	1450788	0.010	-3.31403	15.00000	Averaged	
(5)	1093624	1104032	0.010	-0.95172	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc10.i\07290.b\T0801028.D
Report Date: 27-Aug-2010 11:40

TestAmerica Pittsburgh

7E
HP6890 GC-10
MR-2

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc10.i
Lab File ID: T0801028.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc10.i\07290.b\PCBB.m

Injection Date: 26-AUG-2010 23:59
Init. Cal. Date(s): 29-JUL-2010 29-JUL-2010
Init. Cal. Times: 09:45 16:32
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	568643	603084	0.010	-6.05661	15.00000	Averaged
(2)	473843	503463	0.010	-6.25111	15.00000	Averaged
(3)	563274	594512	0.010	-5.54574	15.00000	Averaged
(4)	397158	437823	0.010	-10.23913	15.00000	Averaged
(5)	469648	460457	0.010	1.95696	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	25966559	28860080	0.000	-11.14326	15.00000	Averaged
$ 11 Decachlorobiphenyl	33470046	35041020	0.010	-4.69367	15.00000	Averaged
8 Aroclor-1260 (1)	1217080	1261681	0.010	-3.66459	15.00000	Averaged
(2)	1231840	1308293	0.010	-6.20642	15.00000	Averaged
(3)	1395261	1515265	0.010	-8.60081	15.00000	Averaged
(4)	1404251	1447981	0.010	-3.11414	15.00000	Averaged
(5)	1093624	1093026	0.010	0.05465	15.00000	Averaged

8D

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H180480

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/29/10 07/29/10

Instrument ID: GC10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M1242	07/29/10	0945		
02		M1242	07/29/10	1010		
03		M1242	07/29/10	1035		
04		M1242	07/29/10	1101		
05		M1242	07/29/10	1126		
06		M1254	07/29/10	1152		
07		M1232	07/29/10	1217		
08		M1248	07/29/10	1243		
09		M1262	07/29/10	1308		
10		M1268	07/29/10	1334		
11		XL1660	07/29/10	1359		
12		L1660	07/29/10	1424		
13		ML1660	07/29/10	1450		
14		M1660	07/29/10	1515		
15		MH1660	07/29/10	1541		
16		H1660	07/29/10	1606		
17		XH1660	07/29/10	1632		
18		2M2154	07/29/10	1657		
19		2M1232	07/29/10	1722		
20		2M1242	07/29/10	1748		
21		2M1248	07/29/10	1813		
22		2M1262	07/29/10	1839		
23		2M1268	07/29/10	1904		
24		2M1660	07/29/10	1930		
25		M2154	08/26/10	0726		
26		M1232	08/26/10	0751		
27		M1242	08/26/10	0817		
28		M1248	08/26/10	0842		
29		M1262	08/26/10	0908		
30		M1268	08/26/10	0933		
31		M1660	08/26/10	0959		
32		M1660	08/26/10	1621		
				QC LIMITS		

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H180480

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/29/10 07/29/10

Instrument ID: GC10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	SD-90-SS	L5QXW1AE	08/26/10	1647		
02	SD-90-01	L5QX01AJ	08/26/10	1712		
03	SD-90-02	L5QX11AJ	08/26/10	1738		
04	SD-90-04	L5QX21AD	08/26/10	1803		
05	SD-91-SS	L5QX31AD	08/26/10	1829		
06	SD-91-01	L5QX41AD	08/26/10	1854		
07	SD-94-SS	L5QX61AD	08/26/10	1920		
08	SD-94-01	L5QX71AD	08/26/10	1945		
09	SD-94-02	L5QX81AD	08/26/10	2010		
10	SD-94-04	L5QX91AD	08/26/10	2036		
11	SD-97-SS	L5Q0C1AD	08/26/10	2101		
12	SD-97-01	L5Q0D1AD	08/26/10	2127		
13	SD-97-02	L5Q0F1AD	08/26/10	2152		
14	SD-97-04	L5Q0K1AD	08/26/10	2217		
15	PBLK2359	L5XME1AA	08/26/10	2243		
16	LCS2359	L5XME1AC	08/26/10	2308		
17	LCSD2359	L5XME1AD	08/26/10	2334		
18		MH1660	08/26/10	2359		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Sequence: E:\HPCHEM\1\SEQUENCE\S08260.S

Sequence Table (Front Injector):

No entries - empty table!

Sequence Table (Back Injector):

Sample Information Part:

T07290.PDF
AG 08-26-2010
HP6890 GC-10
MR-2

Line	Location	Sample Information
1	Vial 1	RINSE
T0801010 2	Vial 2	GC0311-10
3	Vial 3	C0H180480-001
4	Vial 4	C0H180480-002
5	Vial 5	C0H180480-003
6	Vial 6	C0H180480-004
1015 7	Vial 7	C0H180480-005
8	Vial 8	C0H180480-006
9	Vial 9	C0H180480-007
10	Vial 10	C0H180480-008
11	Vial 11	C0H180480-009
1020 12	Vial 12	C0H180480-010
13	Vial 13	C0H180480-011
14	Vial 14	C0H180480-012
15	Vial 15	C0H180480-013
16	Vial 16	C0H180480-014
1025 17	Vial 17	C0H180480-BLK
18	Vial 18	C0H180480-LCS
19	Vial 19	C0H180480-LCSD
1028 20	Vial 20	GC0312-10
21	Vial 1	RINSE

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	HEXANE	PCB1	2	Sample		
2	Vial 2	M1660,07290.b	PCB1	1	Sample		
3	Vial 3	L5QXW1AE,07290.b	PCB1	1	Sample		
4	Vial 4	L5QX01AJ,07290.b	PCB1	1	Sample		
5	Vial 5	L5QX11AJ,07290.b	PCB1	1	Sample		
6	Vial 6	L5QX21AD,07290.b	PCB1	1	Sample		

Sequence: E:\HPCHEM\1\SEQUENCE\S08260.S

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
7	Vial 7	L5QX31AD,07290.b	PCB1	1	Sample		
8	Vial 8	L5QX41AD,07290.b	PCB1	1	Sample		
9	Vial 9	L5QX61AD,07290.b	PCB1	1	Sample		
10	Vial 10	L5QX71AD,07290.b	PCB1	1	Sample		
11	Vial 11	L5QX81AD,07290.b	PCB1	1	Sample		
12	Vial 12	L5QX91AD,07290.b	PCB1	1	Sample		
13	Vial 13	L5Q0C1AD,07290.b	PCB1	1	Sample		
14	Vial 14	L5Q0D1AD,07290.b	PCB1	1	Sample		
15	Vial 15	L5Q0F1AD,07290.b	PCB1	1	Sample		
16	Vial 16	L5Q0K1AD,07290.b	PCB1	1	Sample		
17	Vial 17	L5XME1AA,07290.b	PCB1	1	Sample		
18	Vial 18	L5XME1AC,07290.b	PCB1	1	Sample		
19	Vial 19	L5XME1AD,07290.b	PCB1	1	Sample		
20	Vial 20	MH1660,07290.b	PCB1	1	Sample		
21	Vial 1	HEXANE	PCB1	10	Sample		

PCB
QC SUMMARY

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H180480

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-90-SS	128	96	00
02	SD-90-01	117	85	00
03	SD-90-02	110	86	00
04	SD-90-04	124	87	00
05	SD-91-SS	132	98	00
06	SD-91-01	132	106	00
07	SD-94-SS	130	101	00
08	SD-94-01	123	98	00
09	SD-94-02	128	106	00
10	SD-94-04	130	102	00
11	SD-97-SS	135	100	00
12	SD-97-01	129	98	00
13	SD-97-02	133	104	00
14	SD-97-04	129	104	00
15	METHOD BLK. L5XME1AA	128	102	00
16	LCS L5XME1AC	133	106	00
17	LCSD L5XME1AD	127	106	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200000 WO #: L5XME1AC
BATCH: 0232359

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	695	104	55 - 130	
Aroclor 1260	667	680	102	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200000 WO #: L5XME1AD
BATCH: 0232359

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	758	114	55 - 130	
Aroclor 1260	667	652	98	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L5XME1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: T0801025.

Lot Number: C0H180480

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/20/10

Date Analyzed(1): 08/26/10

Date Analyzed(2): N/A

Time Analyzed(1): 22:43

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-90-SS	L5QXW1AE	08/26/10	N/A
02	SD-90-01	L5QX01AJ	08/26/10	N/A
03	SD-90-02	L5QX11AJ	08/26/10	N/A
04	SD-90-04	L5QX21AD	08/26/10	N/A
05	SD-91-SS	L5QX31AD	08/26/10	N/A
06	SD-91-01	L5QX41AD	08/26/10	N/A
07	SD-94-SS	L5QX61AD	08/26/10	N/A
08	SD-94-01	L5QX71AD	08/26/10	N/A
09	SD-94-02	L5QX81AD	08/26/10	N/A
10	SD-94-04	L5QX91AD	08/26/10	N/A
11	SD-97-SS	L5Q0C1AD	08/26/10	N/A
12	SD-97-01	L5Q0D1AD	08/26/10	N/A
13	SD-97-02	L5Q0F1AD	08/26/10	N/A
14	SD-97-04	L5Q0K1AD	08/26/10	N/A
15	CHECK SAMPLE	L5XME1AC C	08/26/10	N/A
16	DUPLICATE CHECK	L5XME1AD L	08/26/10	N/A
17				
18				
19				
20				

COMMENTS:

FORM IV

FORM VIII

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-97-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H180480

Lab Sample ID: L5Q0C1AD Date(s) Analyzed: 08/26/10 08/26/10

Instrument ID (1): GC10 Instrument ID (2): GC10

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.15	10.12	10.22	182.30		
Aroclor-1260	2	10.75	10.71	10.81	192.47		
	3	11.61	11.58	11.68	106.09		
COLUMN 1	4	12.28	12.24	12.34	104.56		
	5	14.13	14.09	14.19	132.74	143.63	
	1	10.65	10.61	10.71	168.88		
	2	10.95	10.90	11.00	64.184		
	3	11.36	11.31	11.41	98.423		
COLUMN 2	4	11.62	11.57	11.67	120.39		
	5	12.06	12.01	12.11	91.146	108.61	32.2
						RPD= 27.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-90-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H180480

Lab Sample ID: L5QX01AJ Date(s) Analyzed: 08/26/10 08/26/10

Instrument ID (1): GC10 Instrument ID (2): GC10

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	11.61	11.58	11.68	278.23		
Aroclor-1260	2	12.28	12.24	12.34	353.65		
	3	14.13	14.09	14.19	535.55		
COLUMN 1	4						
	5					389.14	
	1	10.95	10.90	11.00	187.35		
	2	11.36	11.31	11.41	271.62		
	3	11.62	11.57	11.67	394.33		
COLUMN 2	4	12.06	12.01	12.11	302.91		
	5					289.05	34.6
						RPD= 29.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

GC/MS SEMIVOLATILE
CALIBRATION DATA

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Calibration File Names:
Level 1: \\PITSVR06\d\chem\722.i\081310.b\F08130C9.D
Level 2: \\PITSVR06\d\chem\722.i\081310.b\F08130C2.D
Level 3: \\PITSVR06\d\chem\722.i\081310.b\F08130C3.D
Level 4: \\PITSVR06\d\chem\722.i\081310.b\F08130C4.D
Level 5: \\PITSVR06\d\chem\722.i\081310.b\F08130C5.D
Level 6: \\PITSVR06\d\chem\722.i\081310.b\F08130C6.D
Level 7: \\PITSVR06\d\chem\722.i\081310.b\F08130C7.D
Level 8: \\PITSVR06\d\chem\722.i\081310.b\F08130C8.D

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
227 Indene	2.40472	2.45731	2.52899	2.49693	2.46803	2.44948						
	2.33478	2.32425					AVRG		2.43306		3.01475	
225 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
226 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
224 Pentachloroanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
203 3&4 Methylphenol total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
198 1,4-Dioxane	+++++	0.34539	0.33297	0.29844	0.28086	0.26607						
	0.25557	0.25814					AVRG		0.29106		12.41473	
7 N-Nitrosomorpholine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
8 Ethyl methanesulfonate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
9 Pyridine	0.92723	1.21754	1.25773	1.39585	1.36682	1.40511						
	1.30676	1.31786					AVRG		1.27436		12.13302	
199 Thionazin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

(1001 - 1430)
1244
C0H180480

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
200 Sulfotepp	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
10 N-Nitrosodimethylamine	0.61947	0.72009	0.77625	0.79126	0.77907	0.77750								
	0.73539	0.75278							AVRG		0.74398		7.51064	
11 Ethyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
12 3-Chloropropionitrile	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
13 Malononitrile	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
14 2-Picoline	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
15 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-

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INITIAL CALIBRATION DATA

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End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
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Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
16 Methyl methanesulfonate	0.66320	0.67855	0.72443	0.71869	0.68187	0.69214						
	0.65785	0.64207					AVRG		0.68235		4.21519	
18 1,3-Dichloro-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
19 N-Nitrosodiethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
220 Benzaldehyde	1957	9796	35353	95520	191406	323161						
	457794	503371					QUAD	0.20790	0.62124	0.14074	0.99817	
21 Aniline	1.58339	1.66688	1.76793	1.79381	1.78401	1.76529						
	1.65352	1.60790					AVRG		1.70284		4.96363	
22 Phenol	1.80390	1.81200	1.91430	1.86621	1.82225	1.78474						
	1.68767	1.67693					AVRG		1.79600		4.51212	
23 bis(2-Chloroethyl)ether	1.29531	1.34618	1.30762	1.30921	1.28346	1.26833						
	1.22212	1.21802					AVRG		1.28128		3.43457	

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Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
24 2-Chlorophenol	1.37904	1.43740	1.50094	1.47930	1.44358	1.42368						
	1.35756	1.36337					AVRG		1.42311		3.72264	
25 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
26 1,3-Dichlorobenzene	1.62401	1.65878	1.66504	1.68396	1.68657	1.65788						
	1.56778	1.57121					AVRG		1.63940		2.87965	
27 1,4-Dichlorobenzene	1.63810	1.69203	1.71523	1.68400	1.68534	1.67869						
	1.57345	1.56621					AVRG		1.65413		3.39955	
28 1,2-Dichlorobenzene	1.63085	1.61349	1.58913	1.59651	1.58874	1.57650						
	1.48362	1.48183					AVRG		1.57008		3.59425	
29 Benzyl Alcohol	0.64247	0.86345	0.86418	0.82723	0.85078	0.87687						
	0.84920	0.84962					AVRG		0.82797		9.22186	
30 2-Methylphenol	1.24101	1.28853	1.30203	1.24571	1.21711	1.22363						
	1.20999	1.19959					AVRG		1.24095		2.97726	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
31 2,2'-oxybis(1-Chloropropane)	1.23044	1.30538	1.32085	1.27030	1.22625	1.22258						
	1.17708	1.17713					AVRG		1.24125		4.32923	
32 N-Nitroso-di-n-propylamine	1.02195	0.95263	1.00026	0.97083	0.93469	0.91713						
	0.90201	0.90093					AVRG		0.95005		4.73558	
M 195 Cresols, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
192 4-Methylphenol	1.22899	1.34590	1.35555	1.30608	1.23859	1.27139						
	1.22244	1.25871					AVRG		1.27846		4.06108	
193 3-Methylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
34 Hexachloroethane	0.63791	0.61187	0.63570	0.64420	0.65350	0.63250						
	0.61182	0.62021					AVRG		0.63096		2.39833	
35 Nitrobenzene	0.37257	0.40366	0.42502	0.40352	0.41584	0.39635						
	0.38742	0.38892					AVRG		0.39916		4.17434	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
36 N-Nitrosopyrrolidine	0.54983	0.56691	0.59002	0.59224	0.57742	0.58602						
	0.58674	0.59308					AVRG		0.58028		2.59735	
37 Acetophenone	1.97530	2.22865	1.94044	1.85913	1.80758	1.77640						
	1.71957	1.70539					AVRG		1.87656		9.16020	
39 o-Toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
40 N-Nitrosopiperidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
41 Isophorone	0.62746	0.65089	0.67196	0.64482	0.65586	0.64340						
	0.62753	0.63295					AVRG		0.64436		2.37296	
42 2-Nitrophenol	0.15967	0.17874	0.19718	0.20326	0.21318	0.21444						
	0.21428	0.21881					AVRG		0.19994		10.41819	
43 2,4-Dimethylphenol	0.29927	0.35698	0.37616	0.36893	0.36653	0.36724						
	0.35195	0.36744					AVRG		0.35681		6.84195	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
44 bis(2-Chloroethoxy)methane	0.39373	0.38652	0.40881	0.40441	0.40299	0.39819						
	0.39391	0.39566					AVRG		0.39803		1.78958	
45 O,O,O-Triethyl phosphorothioa	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.24581	0.27939	0.30890	0.29930	0.30701	0.30622						
	0.30315	0.31012					AVRG		0.29499		7.51455	
49 Benzoic Acid	6806	3381	18537	32471	48798	138897						
	+++++	+++++					QUAD	-0.03249	29.12760	-38.14467	0.99428	
50 1,2,4-Trichlorobenzene	0.31627	0.34294	0.33623	0.34367	0.35178	0.34975						
	0.33878	0.34661					AVRG		0.34075		3.27891	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
51 Naphthalene	1.10269	1.08618	1.08403	1.08350	1.08384	1.03955						
	0.99767	0.98385					AVRG		1.05766		4.26789	
52 4-Chloroaniline	0.38925	0.38592	0.41569	0.41419	0.42872	0.41722						
	0.41156	0.42032					AVRG		0.41036		3.65070	
221 Caprolactam	+++++	0.07035	0.08206	0.08502	0.09636	0.09269						
	0.08174	0.09486					AVRG		0.08615		10.70160	
53 a,a-Dimethyl-phenethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
54 2,6-Dichlorophenol	0.27364	0.29280	0.30639	0.29342	0.30151	0.30174						
	0.30035	0.30572					AVRG		0.29694		3.58740	
55 Hexachloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
56 Hexachlorobutadiene	0.19771	0.19968	0.19559	0.20171	0.20800	0.20738						
	0.20524	0.20827					AVRG		0.20295		2.44617	

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
57 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
58 N-Nitrosodi-n-butylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
59 4-Chloro-3-Methylphenol	0.26877	0.29213	0.30833	0.30401	0.29601	0.29780						
	0.30130	0.30418					AVRG		0.29657		4.16519	
60 p-Phenylene diamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
61 Safrole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
62 2-Methylnaphthalene	0.67256	0.69217	0.72525	0.70585	0.70124	0.70642						
	0.69237	0.70460					AVRG		0.70006		2.16521	
64 Hexachlorocyclopentadiene	1801	11679	28805	67202	137803	264528						
	457370	567444					QUAD	0.09551	2.81550	-0.04729	0.99982	

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Compound	0.4000000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
65 1,2,4,5-Tetrachlorobenzene	0.55878	0.57760	0.58917	0.60132	0.59809	0.61766						
	0.61525	0.61563					AVRG		0.59669		3.48374	
66 2,4,6-Trichlorophenol	0.30330	0.34000	0.37329	0.37642	0.38148	0.41907						
	0.41277	0.43243					AVRG		0.37985		11.29802	
67 2,4,5-Trichlorophenol	0.28726	0.37844	0.39594	0.39382	0.40930	0.40483						
	0.40817	0.39248					AVRG		0.38378		10.49571	
68 1,2,3,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
222 1,1'-Biphenyl	1.44048	1.47292	1.52673	1.56116	1.55388	1.56567						
	1.51522	1.50219					AVRG		1.51728		2.92575	
69 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
70 2-Chloronaphthalene	1.12693	1.16820	1.20407	1.19563	1.19462	1.23388						
	1.19514	1.18643					AVRG		1.18811		2.59232	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
219 1-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
71 Isosafrole 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 188 Isosafrole, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
72 Isosafrole 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
73 2-Nitroaniline	0.26050	0.31228	0.32943	0.33738	0.32991	0.33712						
	0.33826	0.34095					AVRG		0.32323		8.32713	
74 1,2,3,4-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
75 1,4-Naphthoquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
76 Dimethylphthalate	1.28704	1.23362	1.28226	1.25449	1.24854	1.28400								
	1.22647	1.22649							AVRG		1.25536		2.07191	
77 m-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
78 2,6-Dinitrotoluene	0.20774	0.23474	0.28842	0.28463	0.30209	0.30126								
	0.29777	0.31020							AVRG		0.27836		13.24025	
79 Acenaphthylene	1.51990	1.66239	1.72300	1.72107	1.72059	1.76238								
	1.67971	1.66383							AVRG		1.68161		4.39021	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	0.21885	0.27642	0.30757	0.30844	0.31292	0.33000								
	0.31502	0.33465							AVRG		0.30049		12.42710	
82 Acenaphthene	1.16162	1.15942	1.19765	1.18471	1.16034	1.20575								
	1.16139	1.16463							AVRG		1.17444		1.60260	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
83 2,4-Dinitrophenol	+++++	+++++	19999	40070	71826	97073								
							174030	239504	QUAD	0.66099	7.37688	-0.92205	0.99890	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
85 4-Nitrophenol	+++++	+++++	0.17308	0.17919	0.18449	0.18473								
	0.17697	0.18889							AVRG		0.18122		3.21981	
86 Dibenzofuran	1.71276	1.57433	1.63200	1.64241	1.60976	1.63646								
	1.57759	1.57079							AVRG		1.61951		2.94571	
87 2,4-Dinitrotoluene	0.24852	0.34085	0.38661	0.38720	0.38153	0.39114								
	0.38339	0.40052							AVRG		0.36497		13.76538	
88 2,3,4,6-Tetrachlorophenol	0.21692	0.28780	0.32379	0.31328	0.31504	0.32534								
	0.31754	0.33217							AVRG		0.30399		12.35689	
89 1-Naphthylamine	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
90 Zinophos	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
91 2,3,5,6-Tetrachlorophenol	1893 / 440826	11452 / 549898	32279	63752	131436	244781	QUAD	0.06015	3.08544	-0.09866	0.99974	
92 2-Naphthylamine	4911 / 401421	23832 / 468448	47302	107555	187866	287361	QUAD	0.04383	1.55646	0.55338	0.99786	
93 Diethylphthalate	1.11505 / 1.16207	1.18859 / 1.19250	1.33059	1.25721	1.20435	1.21916	AVRG		1.20869		5.32078	
94 Fluorene	1.27641 / 1.34378	1.30091 / 1.35132	1.32166	1.30249	1.32078	1.39553	AVRG		1.32661		2.77359	
95 4-Chlorophenyl-phenylether	0.61028 / 0.67633	0.60849 / 0.69516	0.64260	0.64846	0.63932	0.68754	AVRG		0.65102		5.06321	
96 4-Nitroaniline	0.19402 / 0.31208	0.29069 / 0.31930	0.30558	0.30369	0.32343	0.33078	AVRG		0.29745		14.66833	

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Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
97 5-Nitro-o-toluidine	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	2484 / 248972	9695 / 332951	44158	78771	126555	153586	QUAD	0.24714	6.89553	-0.18452	0.99907	
99 N-Nitrosodiphenylamine	0.51110 / 0.61206	0.58917 / 0.59915	0.60275	0.59140	0.60180	0.60040	AVRG		0.58848		5.44593	
100 1,2-Diphenylhydrazine	0.86331 / 0.86071	0.87370 / 0.83837	0.91347	0.93359	0.92439	0.90010	AVRG		0.88846		3.85647	
101 Diphenylamine	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
202 N-Nitroso&Diphenylamine	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
102 Tetraethyl dithiopyrophosphat	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
103 Diallate 1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
M 189 Diallate, total	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
104 Phorate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
105 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
106 4-Bromophenyl-phenylether	0.20738	0.21795	0.22770	0.23104	0.23708	0.23715	0.24272	0.24149	AVRG		0.23031		5.33670	
107 Hexachlorobenzene	0.21578	0.21224	0.22039	0.22040	0.22691	0.23300	0.23911	0.23529	AVRG		0.22539		4.31336	
108 Phenacetin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
223 Atrazine	0.08852	0.10999	0.09435	0.12262	0.12669	0.12245						
	+++++	+++++					AVRG		0.11077		14.53039	
109 Diallate 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++				.	AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	3853	13891	47804	82673	129346	164001						
	284315	369254					QUAD	0.22768	6.61513	-0.42372	0.99946	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
115 Phenanthrene	1.12791	1.12353	1.15165	1.15045	1.15488	1.11190								
	1.17256	1.13300							AVRG		1.14073		1.74637	
116 Anthracene	1.04804	1.13791	1.18867	1.17561	1.21249	1.16055								
	1.14286	1.09410							AVRG		1.14503		4.63162	
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.95652	1.03105	1.03947	1.02044	1.05215	1.01886								
	0.96425	0.99047							AVRG		1.00915		3.47433	
120 Di-n-Butylphthalate	1.03392	1.17914	1.24874	1.25819	1.34244	1.26949								
	1.24036	1.23563							AVRG		1.22599		7.32120	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++								
	+++++	+++++							AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.01536	1.14862	1.14047	1.09907	1.18313	1.14698						
	1.09291	1.11490					AVRG		1.11768		4.54401	
124 Benzidine	2328	9886	34574	97253	179112	307693						
	484456	682853					QUAD	0.00840	3.17671	-0.00076	0.99889	
125 Pyrene	1.31593	1.33451	1.37368	1.36146	1.28464	1.25122						
	1.23822	1.16368					AVRG		1.29042		5.47434	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
130 Famphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.49957	0.54719	0.58409	0.61428	0.59785	0.60144						
	0.59303	0.58405					AVRG		0.57769		6.43002	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
135 3,3'-Dichlorobenzidine	0.30727	0.33735	0.36346	0.40115	0.41940	0.41856						
	0.42122	0.42615					AVRG		0.38682		11.69500	
136 Benzo(a)Anthracene	1.13091	1.10635	1.14343	1.13241	1.13667	1.11677						
	1.09331	1.08696					AVRG		1.11835		1.87535	
137 Chrysene	1.09063	1.10294	1.13267	1.16112	1.16230	1.12571						
	1.11104	1.07708					AVRG		1.12044		2.77111	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.62066	0.77968	0.80532	0.82390	0.85603	0.84347						
	0.85254	0.83865					AVRG		0.80253		9.69853	
140 Di-n-octylphthalate	1.17345	1.29869	1.39458	1.46405	1.49397	1.53895						
	1.51083	1.49902					AVRG		1.42169		8.90439	
141 Benzo(b)fluoranthene	1.16890	1.13652	1.29405	1.19298	1.27494	1.40242						
	1.28843	1.44649					AVRG		1.27559		8.55423	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
142 Benzo(k)fluoranthene	1.36410	1.41749	1.29774	1.41629	1.38221	1.30668						
	1.38287	1.31035					AVRG		1.35972		3.59125	
143 7,12-dimethylbenz[a]anthracen	0.45932	0.55515	0.57962	0.59329	0.60865	0.63708						
	0.65002	0.68075					AVRG		0.59548		11.45509	
213 Dinocap 1(1)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Dinocap 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Dinocap 4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 218 Dinocap, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
216 Dinocap 3	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	0.90255	0.98512	1.03941	1.08936	1.10207	1.12387						
	1.11027	1.12765					AVRG		1.06004		7.53306	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	8363	48521	110240	257850	597382	1130240						
	1754986	2457605					QUAD	0.06967	0.80308	-0.00381	0.99987	
150 Dibenz(a,h)anthracene	5706	37818	90997	208964	499792	947917						
	1487491	2133011					QUAD	0.07149	0.98253	-0.00999	0.99987	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
151 Benzo(g,h,i)perylene	6506	43950	102836	225588	526534	972719	1484860	2090048	QUAD	0.04777	0.93309	-0.00390	0.99984	
204 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
205 1-Methylnaphthalene	0.65042	0.68295	0.68135	0.67309	0.69042	0.67697	0.66289	0.67977	AVRG		0.67473		1.87604	
206 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
207 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
208 Dibenzo(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
209 Dibenz(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
210 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
211 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
$ 154 Nitrobenzene-d5	0.38066	0.39000	0.40676	0.39893	0.40159	0.39734						
	0.38988	0.39356					AVRG		0.39484		2.05628	
$ 155 2-Fluorobiphenyl	1.26549	1.30104	1.33754	1.36237	1.34145	1.38379						
	1.33180	1.32005					AVRG		1.33044		2.72932	
$ 156 Terphenyl-d14	0.83538	0.84037	0.90299	0.88376	0.84770	0.83851						
	0.86099	0.81762					AVRG		0.85341		3.27476	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	60.0000 Level 7	80.0000 Level 8									
$ 157 Phenol-d5	1.53012	1.64600	1.69164	1.69188	1.65001	1.63487					
	1.56206	1.55591					AVRG		1.62031		3.87804
$ 158 2-Fluorophenol	1.24992	1.30163	1.30886	1.35870	1.35009	1.34003					
	1.25780	1.26735					AVRG		1.30430		3.28416
$ 159 2,4,6-Tribromophenol	0.06431	0.07114	0.08427	0.09140	0.09354	0.09582					
	0.09799	0.09858					AVRG		0.08713		14.82702
$ 186 2-Chlorophenol-d4	1.39976	1.45921	1.49063	1.47018	1.46383	1.47123					
	1.40023	1.40347					AVRG		1.44482		2.58109
$ 187 1,2-Dichlorobenzene-d4	0.98651	0.98648	1.00915	1.01840	1.02805	1.02201					
	0.99277	1.00302					AVRG		1.00580		1.61671

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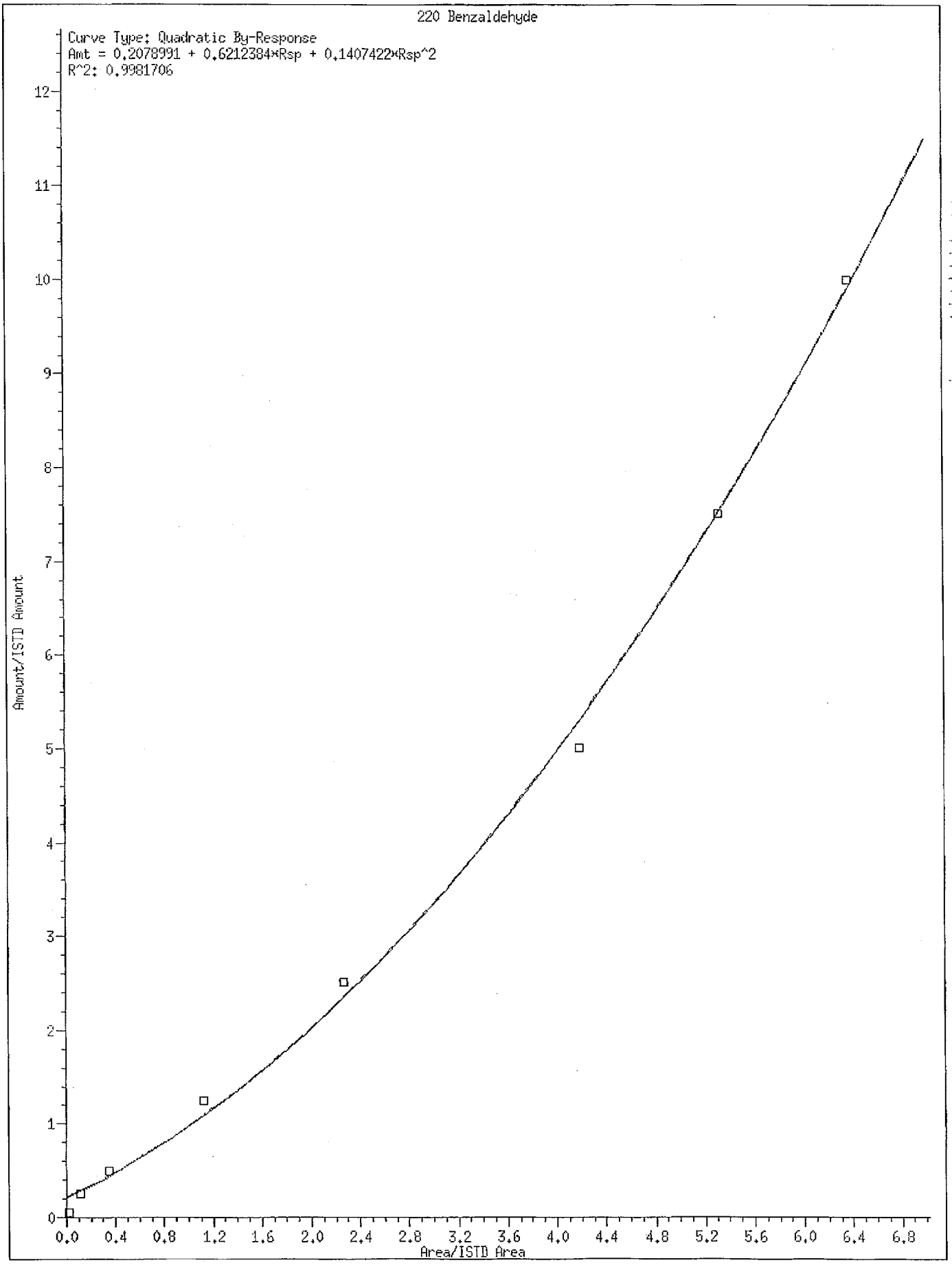
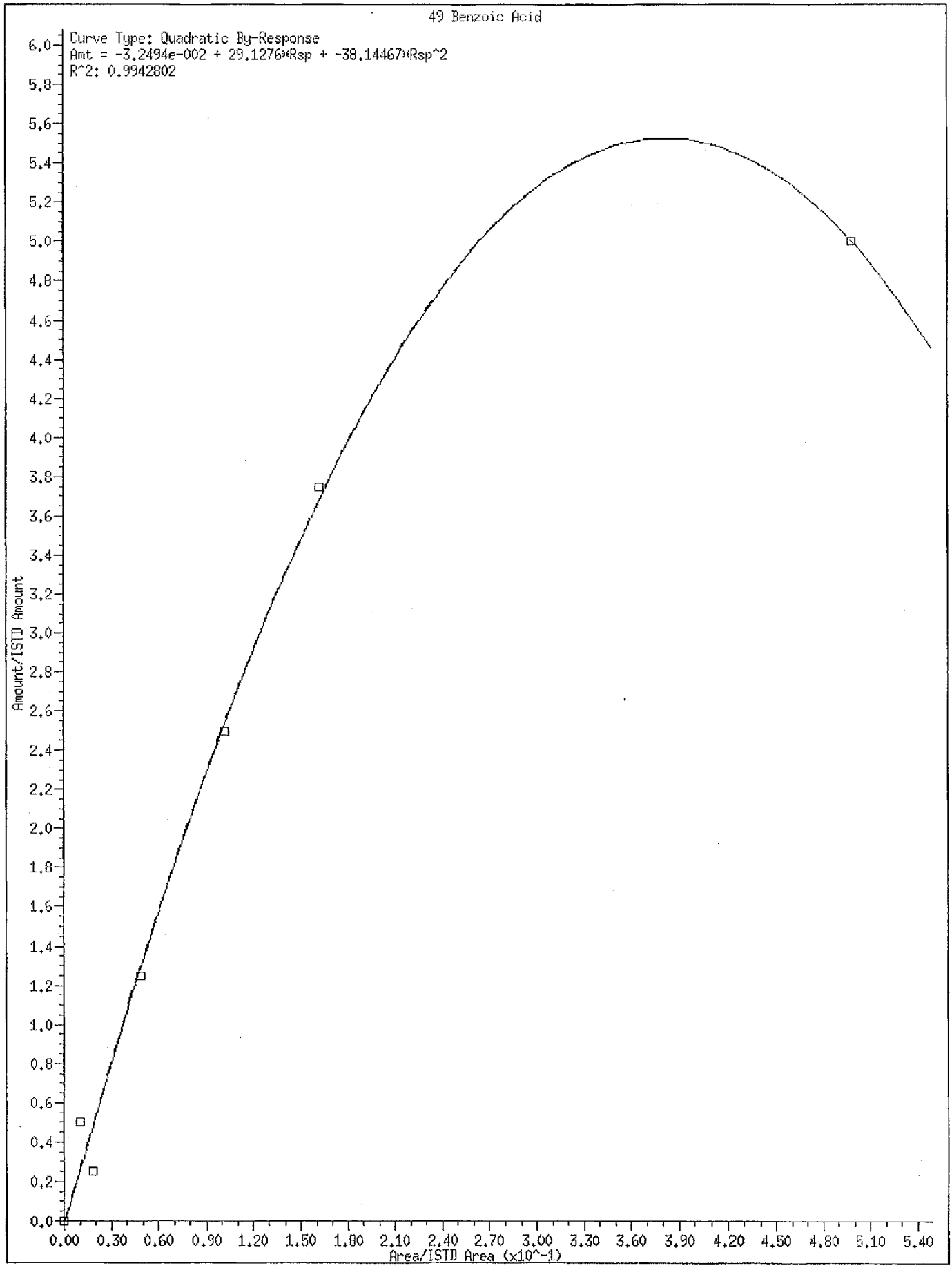
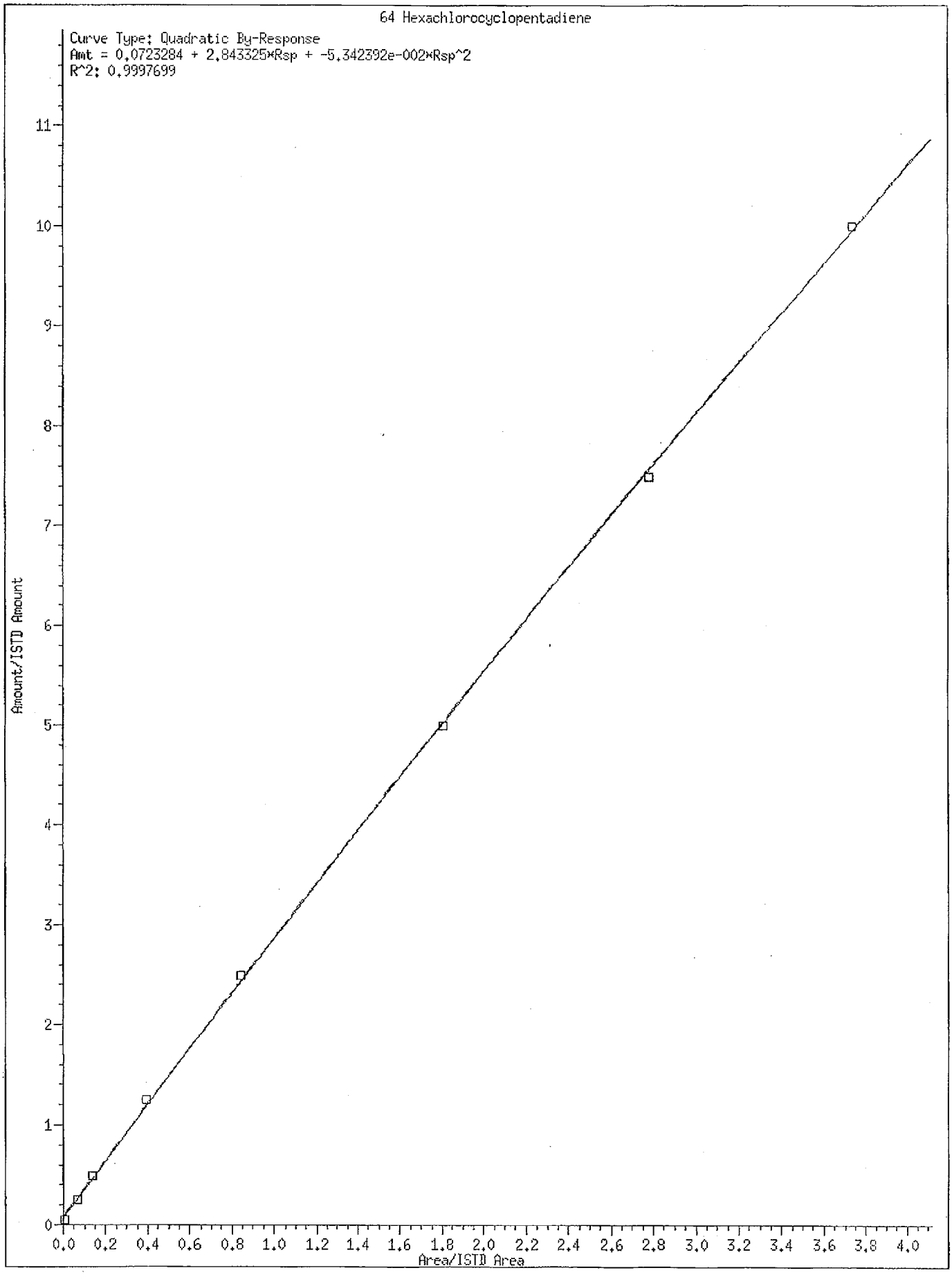
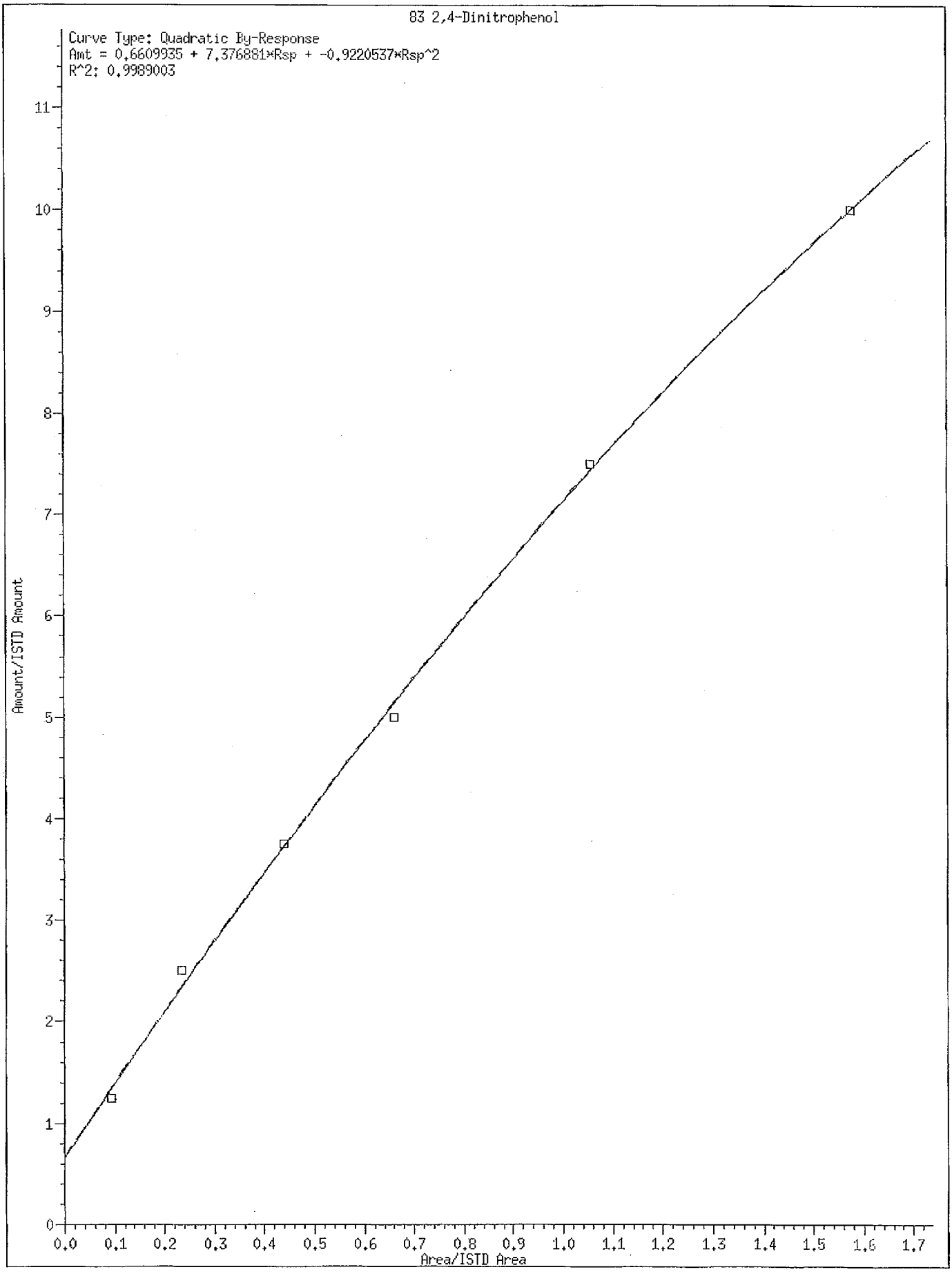
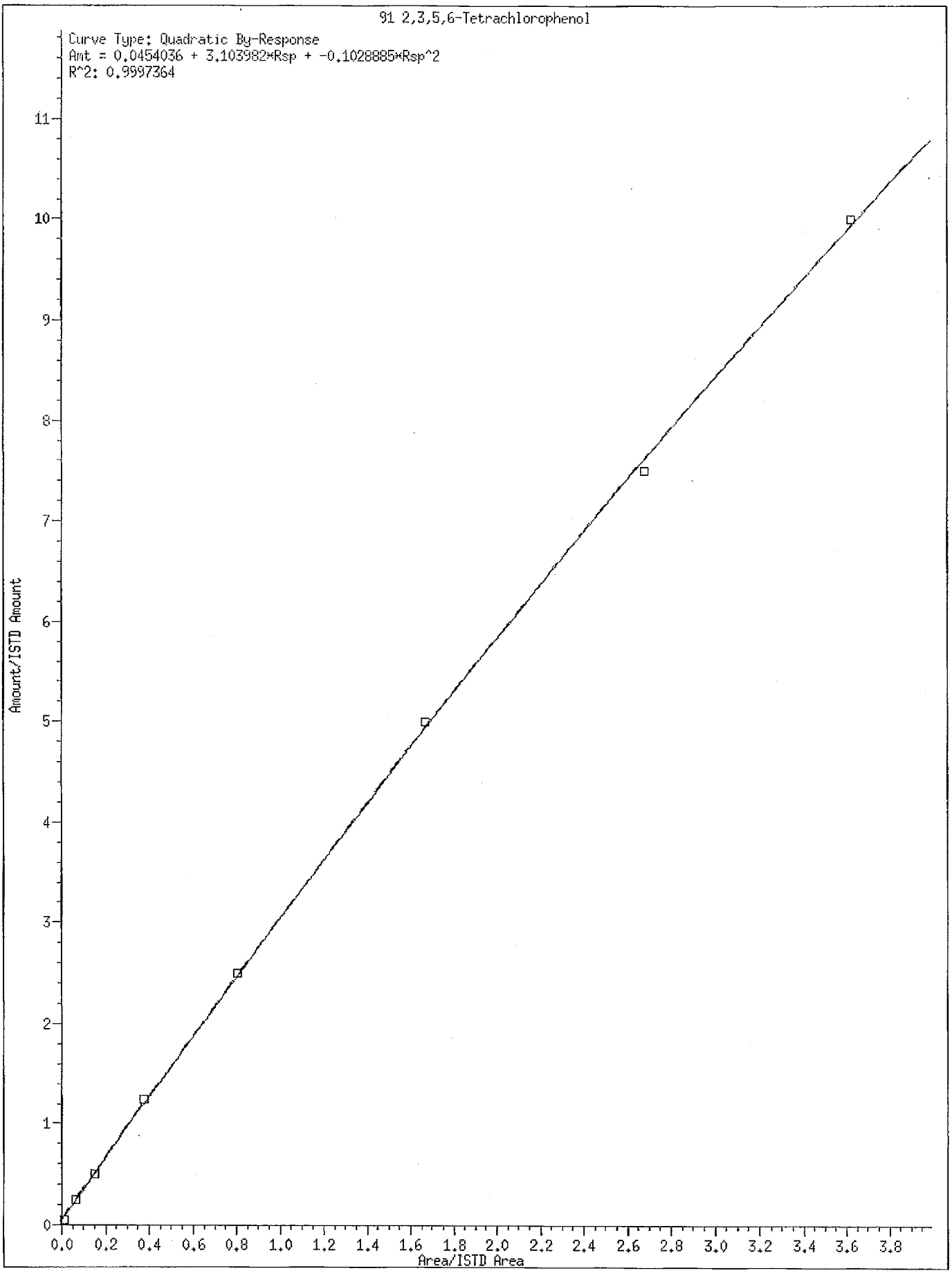
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

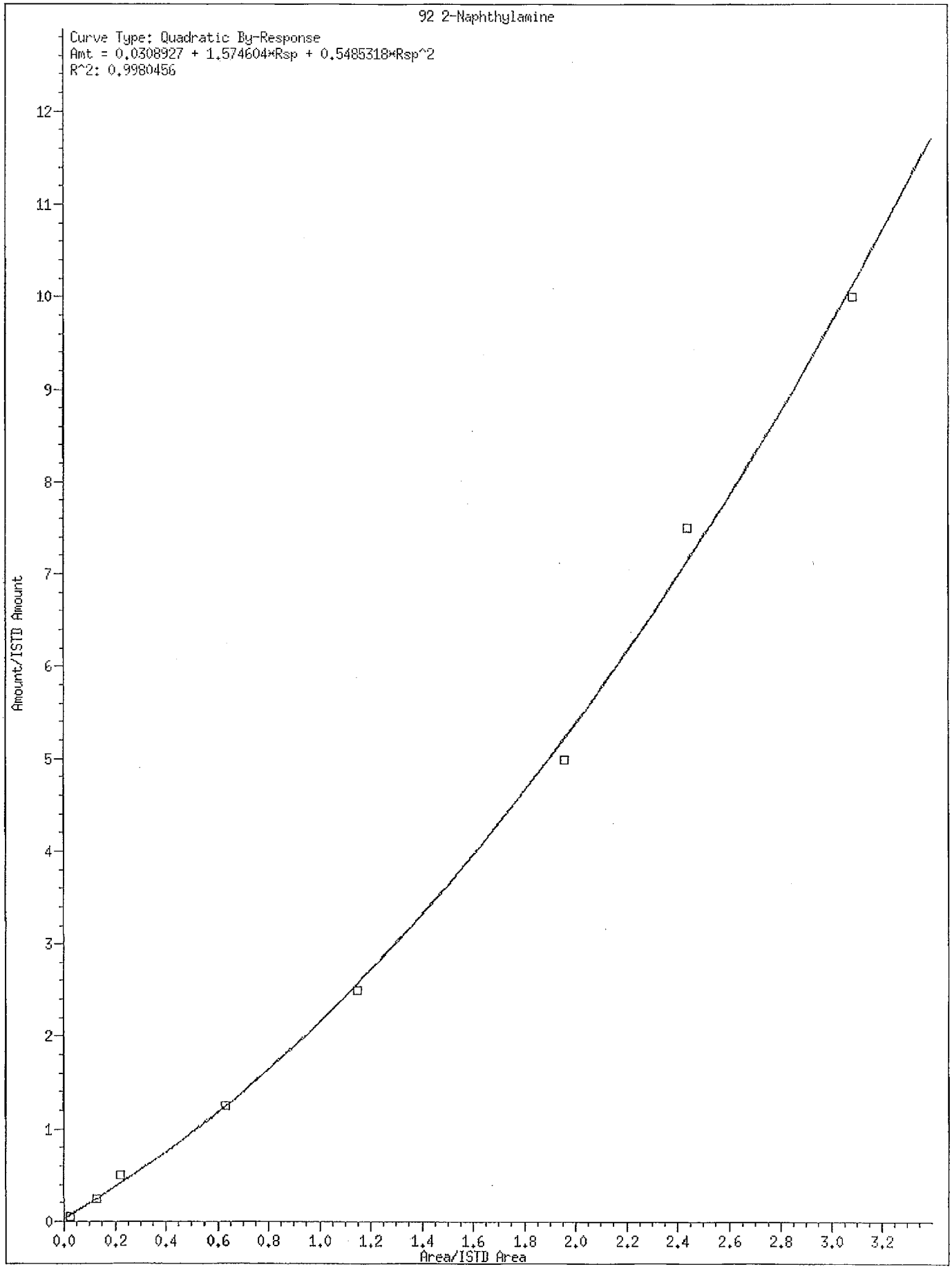

220 Benzaldehyde
Curve Type: Quadratic By-Response
Amt = 0.2078991 + 0.6212384*Rsp + 0.1407422*Rsp^2
R^2: 0.9981706
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8

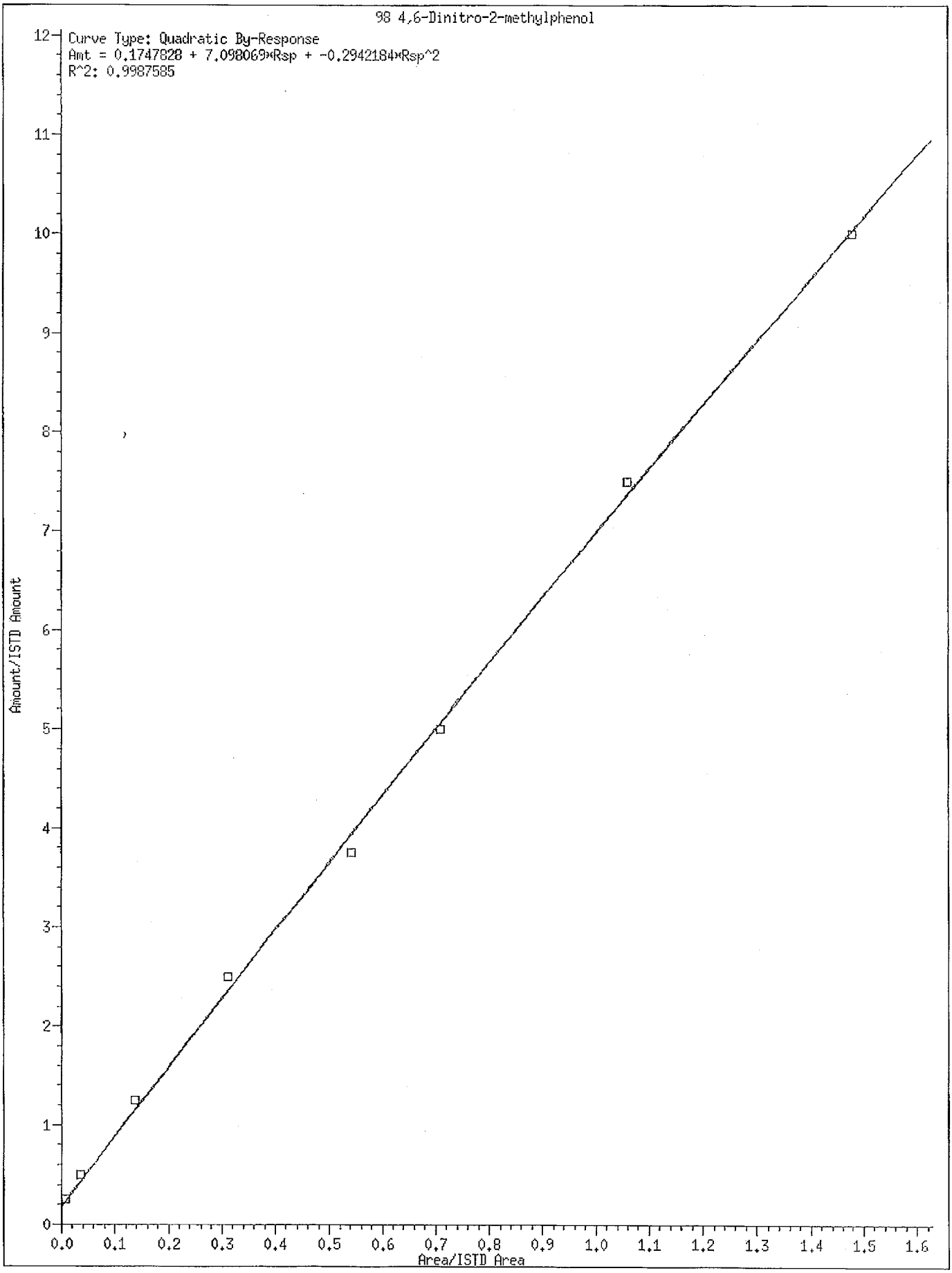

49 Benzoic Acid
Curve Type: Quadratic By-Response
Amt = -3.2494e-002 + 29.1276*Rsp + -38.14467*Rsp^2
R^2: 0.9942802
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
6.0
0.00
0.30
0.60
0.90
1.20
1.50
1.80
2.10
2.40
2.70
3.00
3.30
3.60
3.90
4.20
4.50
4.80
5.10
5.40

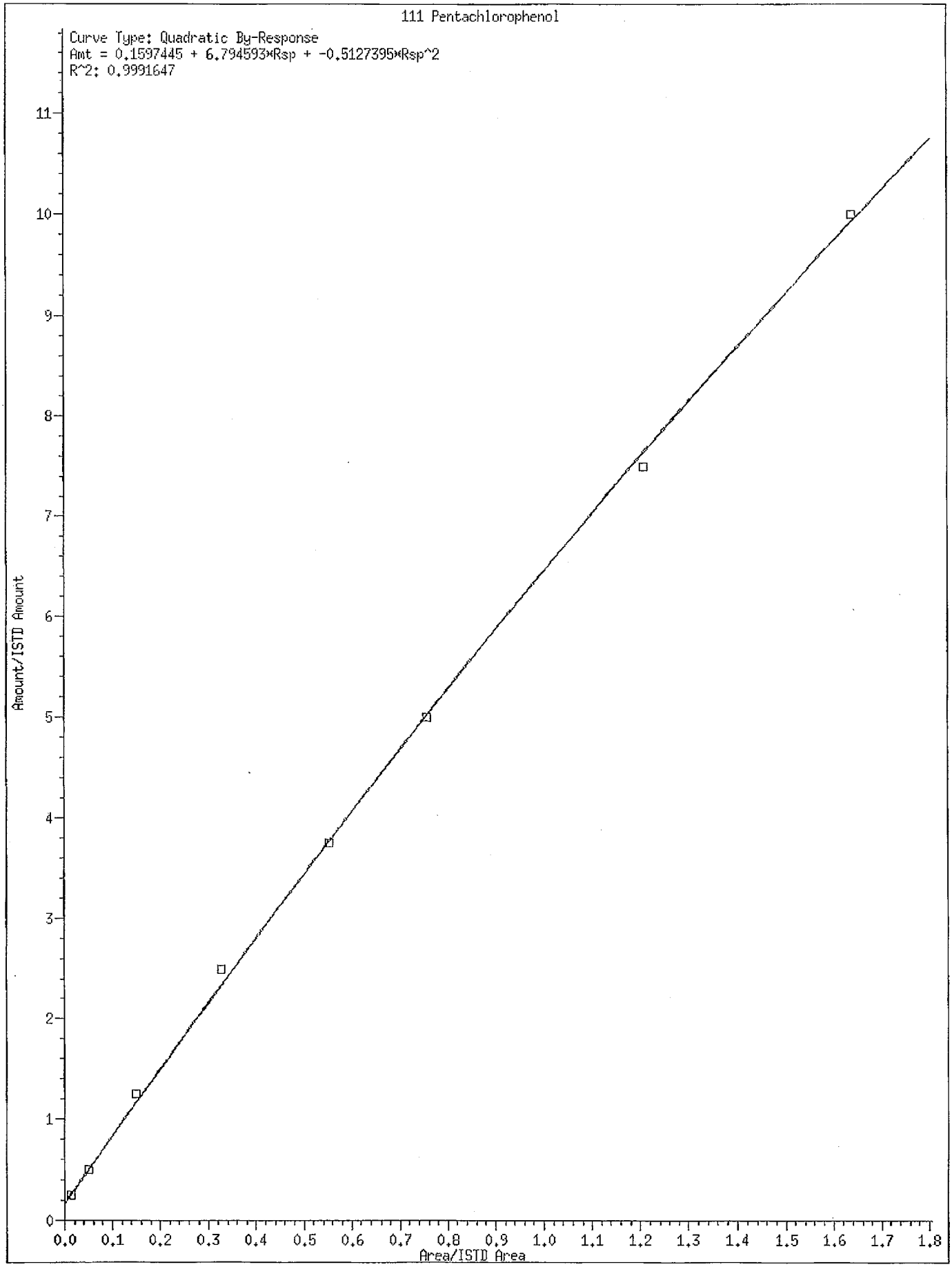

64 Hexachlorocyclopentadiene
Curve Type: Quadratic By-Response
Amt = 0.0723284 + 2.843325*Rsp + -5.342392e-002*Rsp^2
R^2: 0.9997699
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0

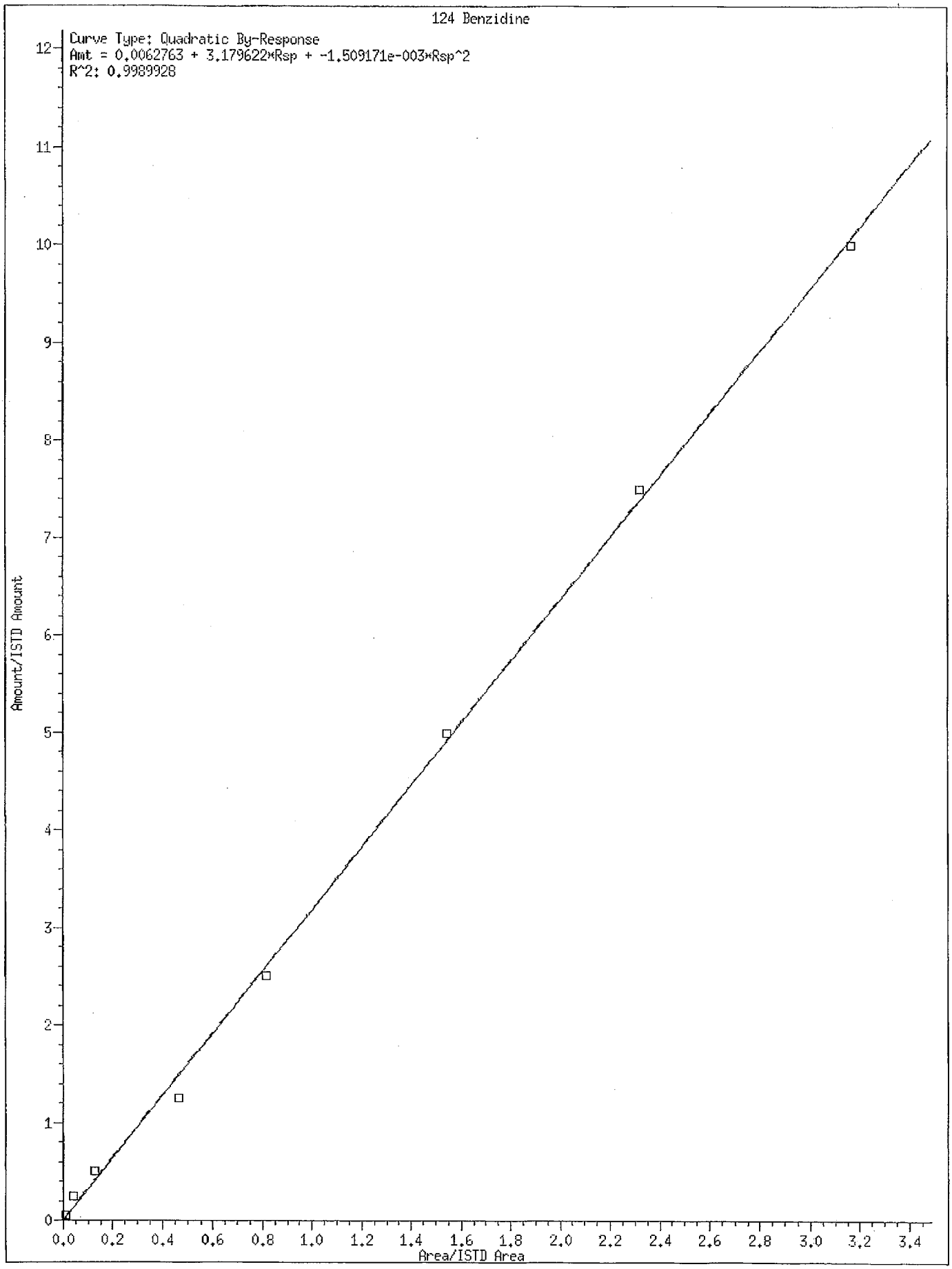

83 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0.6609935 + 7.376881*Rsp + -0.9220537*Rsp^2
R^2: 0.9989003
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7

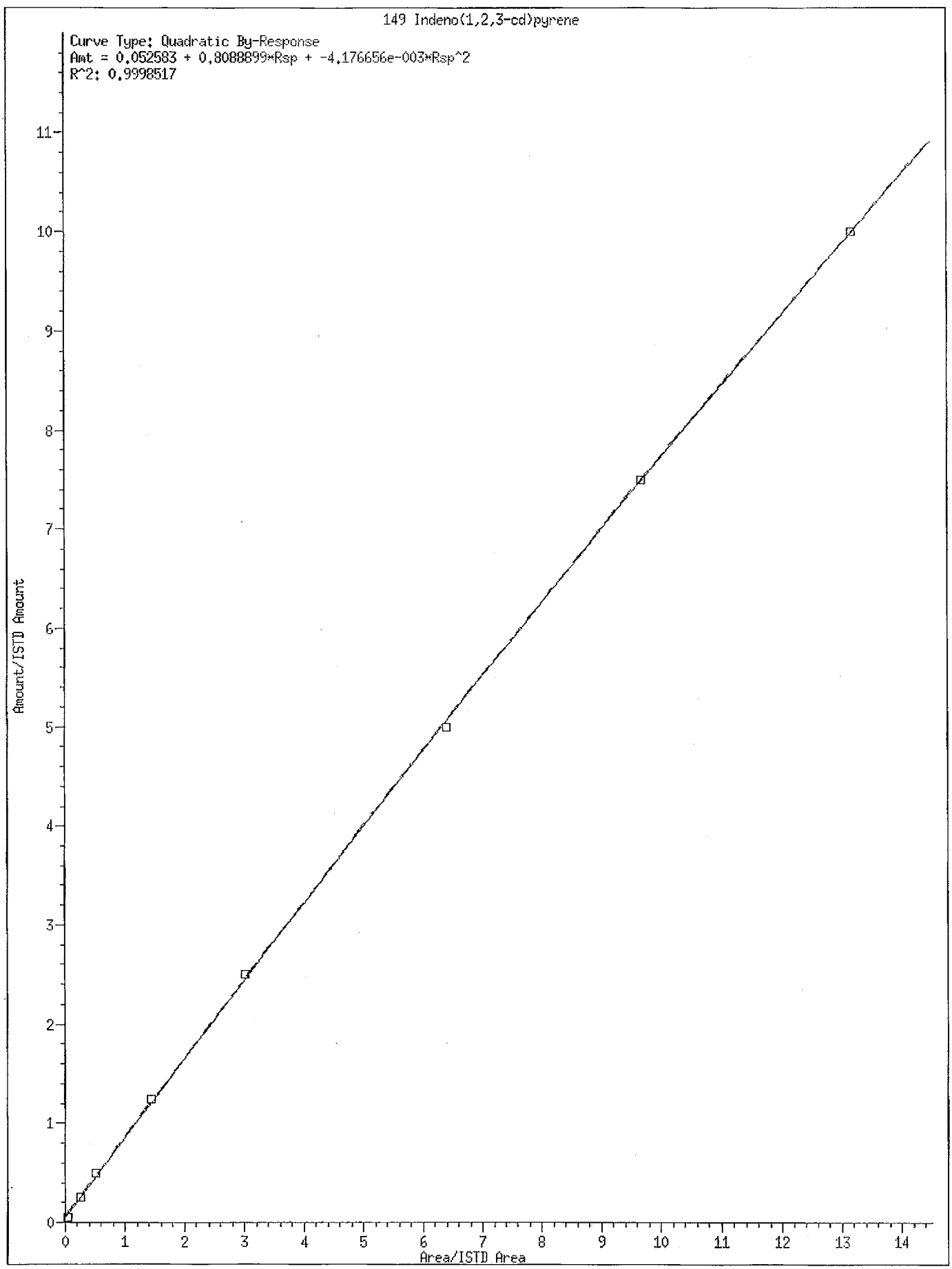

91 2,3,5,6-Tetrachlorophenol
Curve Type: Quadratic By-Response
Amt = 0.0454036 + 3.103982*Rsp + -0.1028885*Rsp^2
R^2: 0.9997364
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8

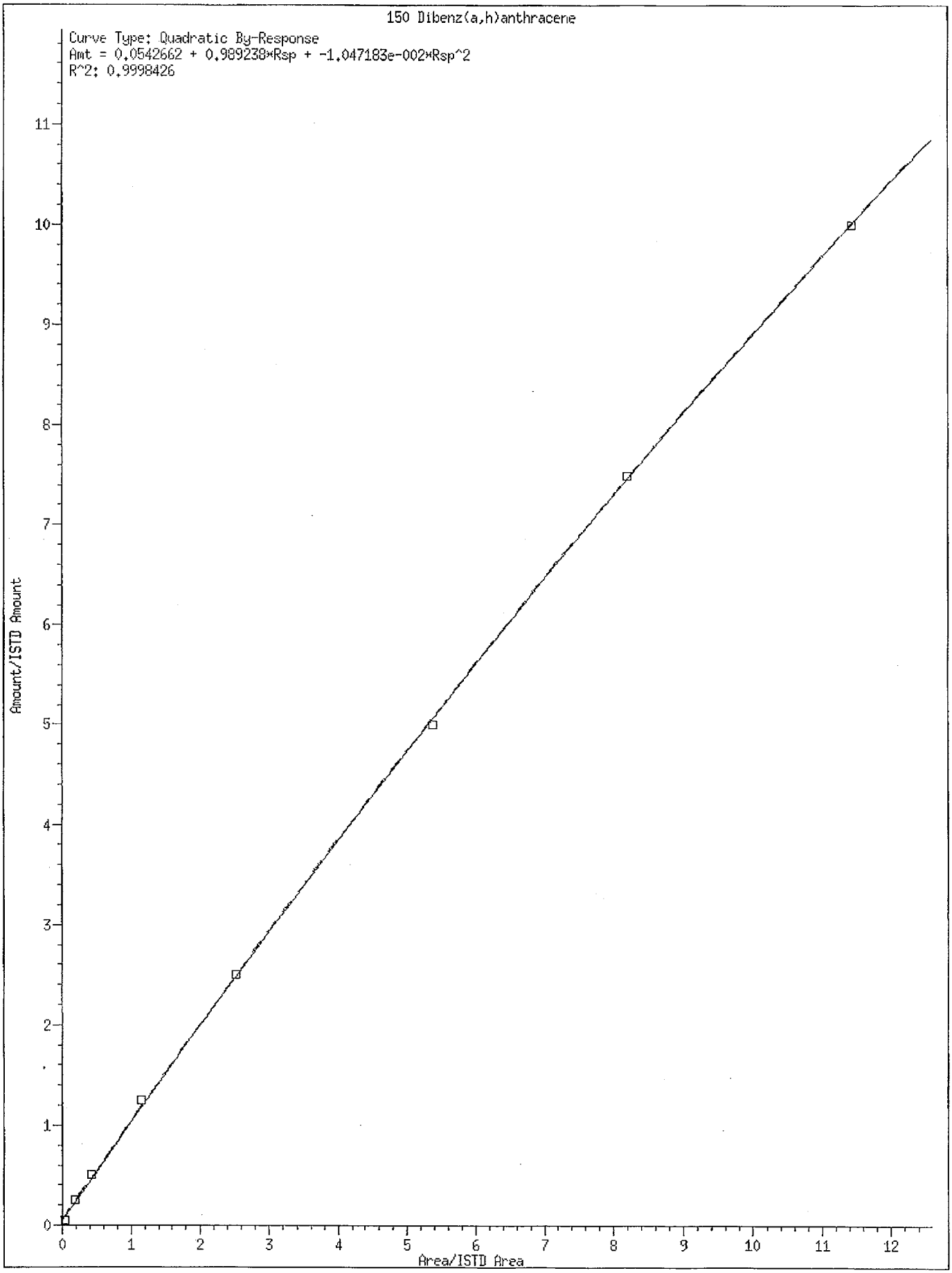

92 2-Naphthylamine
Curve Type: Quadratic By-Response
Amt = 0.0308927 + 1.574604*Rsp + 0.5485318*Rsp^2
R^2: 0.9980456
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2

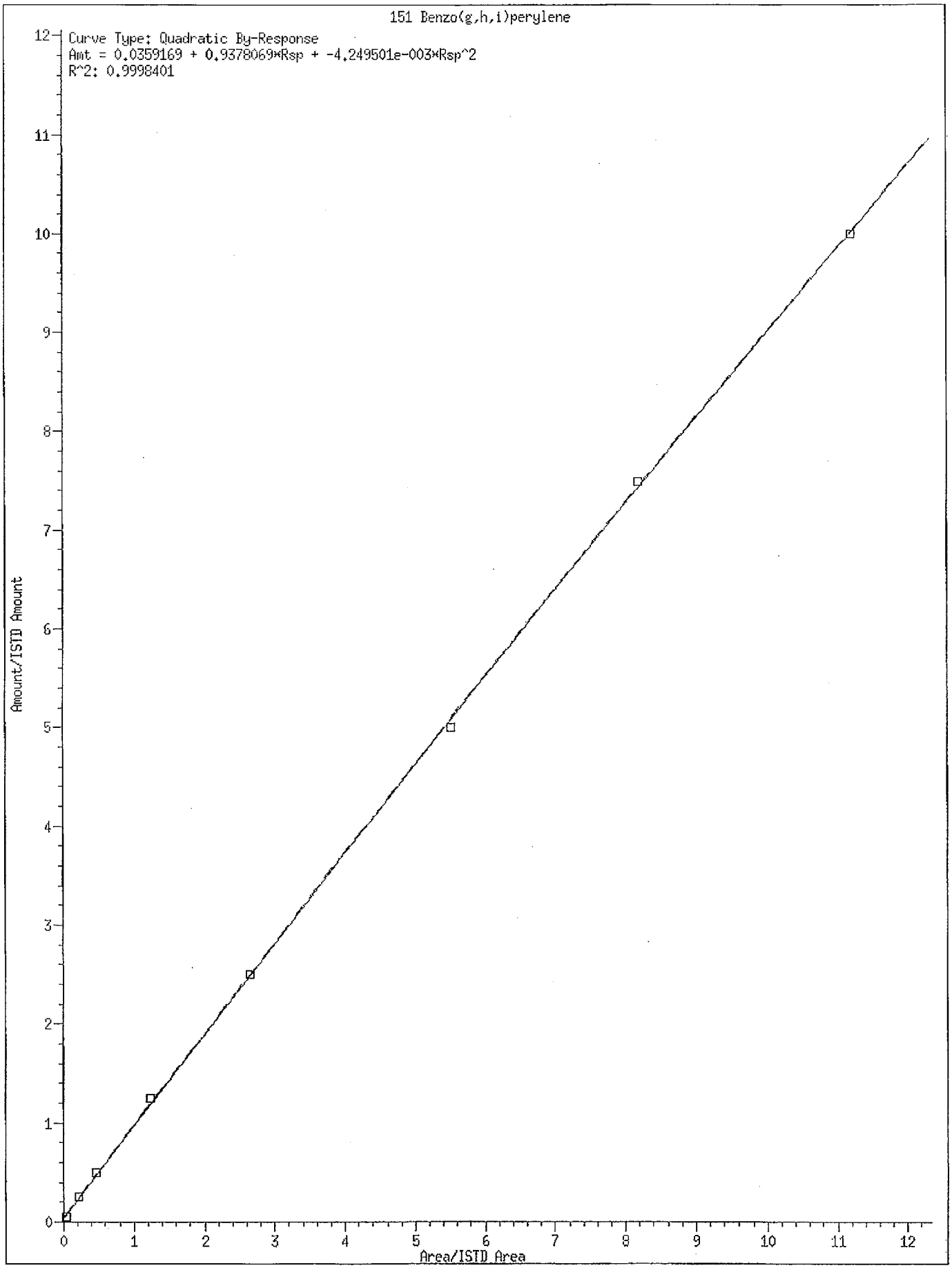

98 4,6-Dinitro-2-methylphenol
Curve Type: Quadratic By-Response
Amt = 0.1747828 + 7.098069*Rsp + -0.2942184*Rsp^2
R^2: 0.9987585
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6


111 Pentachlorophenol
Curve Type: Quadratic By-Response
Amt = 0.1597445 + 6.794593*Rsp + -0.5127395*Rsp^2
R^2: 0.9991647
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8


124 Benzidine
Curve Type: Quadratic By-Response
Amt = 0.0062763 + 3.179622*Rsp + -1.509171e-003*Rsp^2
R^2: 0.9989928
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4


149 Indeno(1,2,3-cd)pyrene
Curve Type: Quadratic By-Response
Amt = 0.052583 + 0.8088899*Rsp + -4.176656e-003*Rsp^2
R^2: 0.9998517
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14


150 Dibenz(a,h)anthracene
Curve Type: Quadratic By-Response
Amt = 0.0542662 + 0.989238*Rsp + -1.047183e-002*Rsp^2
R^2: 0.9998426
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12


151 Benzo(g,h,i)perylene
Curve Type: Quadratic By-Response
Amt = 0.0359169 + 0.9378069*Rsp + -4.249501e-003*Rsp^2
R^2: 0.9998401
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08240C2.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082410.b\LL.m

Injection Date: 24-AUG-2010 05:45
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	0.29106	0.39293	0.39293	0.010	-35.00047	25.00000	Averaged	<-
220 Benzaldehyde	4.00000	3.40053	0.65112	0.010	14.98678	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.74398	0.78679	0.78679	0.010	-5.75482	25.00000	Averaged	
9 Pyridine	1.27436	0.91414	0.91414	0.010	28.26692	25.00000	Averaged	<-
16 Methyl methanesulfonate	0.68235	0.64637	0.64637	0.010	5.27334	25.00000	Averaged	
21 Aniline	1.70284	1.23233	1.23233	0.010	27.63108	25.00000	Averaged	<-
22 Phenol	1.79600	1.60874	1.60874	0.010	10.42678	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.28128	1.49428	1.49428	0.010	-16.62415	25.00000	Averaged	
24 2-Chlorophenol	1.42311	1.48873	1.48873	0.010	-4.61109	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.63940	1.69031	1.69031	0.010	-3.10491	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.65413	1.74985	1.74985	0.010	-5.78655	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.57008	1.60315	1.60315	0.010	-2.10613	25.00000	Averaged	
227 Indene	2.43306	2.57220	2.57220	0.010	-5.71862	25.00000	Averaged	
29 Benzyl Alcohol	0.82797	0.52357	0.52357	0.010	36.76538	25.00000	Averaged	<-
30 2-Methylphenol	1.24095	1.22720	1.22720	0.010	1.10763	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.24125	1.28061	1.28061	0.010	-3.17131	25.00000	Averaged	
37 Acetophenone	1.87656	1.85376	1.85376	0.010	1.21472	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95005	1.00043	1.00043	0.050	-5.30272	25.00000	Averaged	
192 4-Methylphenol	1.27846	1.22464	1.22464	0.010	4.20932	25.00000	Averaged	
34 Hexachloroethane	0.63096	0.63551	0.63551	0.010	-0.72083	25.00000	Averaged	
35 Nitrobenzene	0.39916	0.41994	0.41994	0.010	-5.20610	25.00000	Averaged	
36 N-Nitrosopyrrolidine	0.59099	0.54545	0.54545	0.010	7.70536	25.00000	Averaged	
41 Isophorone	0.64436	0.65750	0.65750	0.010	-2.03930	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.19200	0.19200	0.010	3.97094	20.00000	Averaged	
43 2,4-Dimethylphenol	0.35681	0.38281	0.38281	0.010	-7.28535	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.39803	0.40548	0.40548	0.010	-1.87175	25.00000	Averaged	
48 2,4-Dichlorophenol	0.29499	0.28770	0.28770	0.010	2.47156	20.00000	Averaged	
49 Benzoic Acid	10.00000	37.98287	0.19103	0.010	-280	25.00000	Quadratic	<-
50 1,2,4-Trichlorobenzene	0.34075	0.35770	0.35770	0.010	-4.97193	25.00000	Averaged	
51 Naphthalene	1.05766	1.13531	1.13531	0.010	-7.34172	25.00000	Averaged	
52 4-Chloroaniline	0.41036	0.33596	0.33596	0.010	18.12926	25.00000	Averaged	
54 2,6-Dichlorophenol	0.29694	0.28780	0.28780	0.010	3.07992	25.00000	Averaged	
56 Hexachlorobutadiene	0.20295	0.20565	0.20565	0.010	-1.33076	20.00000	Averaged	
221 Caprolactam	0.08615	0.08761	0.08761	0.010	-1.68865	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.29657	0.29461	0.29461	0.010	0.65971	20.00000	Averaged	
62 2-Methylnaphthalene	0.70006	0.69024	0.69024	0.010	1.40301	25.00000	Averaged	
205 1-Methylnaphthalene	0.67473	0.70485	0.70485	0.010	-4.46309	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.62115	0.25424	0.050	9.47121	25.00000	Quadratic	
65 1,2,4,5-Tetrachlorobenzene	0.52207	0.59000	0.59000	0.010	-13.01237	25.00000	Averaged	
66 2,4,6-Trichlorophenol	0.37985	0.35988	0.35988	0.010	5.25632	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.38378	0.37608	0.37608	0.010	2.00714	25.00000	Averaged	
222 1,1'-Biphenyl	1.51728	1.59158	1.59158	0.010	-4.89684	25.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i Injection Date: 24-AUG-2010 05:45
Lab File ID: F08240C2.D Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Analysis Type: Init. Cal. Times: 06:08 02:51
Lab Sample ID: sstd4 Quant Type: ISTD
Method: \\PITSVR06\d\chem\722.i\082410.b\LL.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
70 2-Chloronaphthalene	1.18811	1.20578	1.20578	0.010	-1.48739	25.00000	Averaged	
73 2-Nitroaniline	0.32323	0.31255	0.31255	0.010	3.30311	25.00000	Averaged	
76 Dimethylphthalate	1.25536	1.27628	1.27628	0.010	-1.66588	25.00000	Averaged	
78 2,6-Dinitrotoluene	0.27836	0.26843	0.26843	0.010	3.56550	25.00000	Averaged	
79 Acenaphthylene	1.68161	1.75561	1.75561	0.010	-4.40062	25.00000	Averaged	
81 3-Nitroaniline	0.30049	0.25886	0.25886	0.010	13.85245	25.00000	Averaged	
82 Acenaphthene	1.17444	1.21726	1.21726	0.010	-3.64577	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	13.54106	0.11391	0.050	-35.41063	25.00000	Quadratic	<-
85 4-Nitrophenol	0.18122	0.15046	0.15046	0.050	16.97528	25.00000	Averaged	
86 Dibenzofuran	1.61951	1.64750	1.64750	0.010	-1.72786	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.36497	0.34863	0.34863	0.010	4.47815	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	4.00000	4.31399	0.31211	0.010	-7.84967	25.00000	Quadratic	
88 2,3,4,6-Tetrachlorophenol	0.30399	0.31845	0.31845	0.010	-4.75821	25.00000	Averaged	
92 2-Naphthylamine	4.00000	1.93991	0.24464	0.010	51.50215	25.00000	Quadratic	<-
93 Diethylphthalate	1.20869	1.23814	1.23814	0.010	-2.43648	25.00000	Averaged	
94 Fluorene	1.32661	1.30768	1.30768	0.010	1.42700	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.65102	0.63253	0.63253	0.010	2.84140	25.00000	Averaged	
96 4-Nitroaniline	0.29745	0.25804	0.25804	0.010	13.24757	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	10.00000	10.15027	0.11900	0.010	-1.50274	25.00000	Quadratic	
99 N-Nitrosodiphenylamine	0.58848	0.60095	0.60095	0.010	-2.11883	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.88846	0.96310	0.96310	0.010	-8.40191	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.23031	0.23583	0.23583	0.010	-2.39664	25.00000	Averaged	
107 Hexachlorobenzene	0.22539	0.23283	0.23283	0.010	-3.30271	25.00000	Averaged	
223 Atrazine	0.11077	0.07341	0.07341	0.010	33.72733	25.00000	Averaged	<-
111 Pentachlorophenol	10.00000	11.69567	0.15109	0.025	-16.95674	20.00000	Quadratic	
115 Phenanthrene	1.14073	1.24668	1.24668	0.010	-9.28756	25.00000	Averaged	
116 Anthracene	1.14503	1.19916	1.19916	0.010	-4.72787	25.00000	Averaged	
119 Carbazole	1.00915	1.04089	1.04089	0.010	-3.14475	25.00000	Averaged	
120 Di-n-Butylphthalate	1.22599	1.32948	1.32948	0.010	-8.44119	25.00000	Averaged	
123 Fluoranthene	1.11768	1.13581	1.13581	0.010	-1.62159	20.00000	Averaged	
124 Benzidine	++++	++++	0.00000	0.010	++++	25.00000	Quadratic	<-
125 Pyrene	1.29042	1.35074	1.35074	0.010	-4.67453	25.00000	Averaged	
131 Butylbenzylphthalate	0.57769	0.53933	0.53933	0.010	6.64064	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.38682	0.37020	0.37020	0.010	4.29552	25.00000	Averaged	
136 Benzo(a)Anthracene	1.11835	1.12815	1.12815	0.010	-0.87596	25.00000	Averaged	
137 Chrysene	1.12044	1.18729	1.18729	0.010	-5.96626	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.80253	0.84868	0.84868	0.010	-5.75060	25.00000	Averaged	
140 Di-n-octylphthalate	1.42169	1.23516	1.23516	0.010	13.12075	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27559	1.15425	1.15425	0.010	9.51255	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.35972	1.29319	1.29319	0.010	4.89239	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.59548	0.55451	0.55451	0.010	6.88028	25.00000	Averaged	
146 Benzo(a)pyrene	1.06004	1.02813	1.02813	0.010	3.00999	20.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i Injection Date: 24-AUG-2010 05:45
Lab File ID: F08240C2.D Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Analysis Type: Init. Cal. Times: 06:08 02:51
Lab Sample ID: sstd4 Quant Type: ISTD
Method: \\PITSVR06\d\chem\722.i\082410.b\LL.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
149 Indeno(1,2,3-cd)pyrene	4.00000	4.33868	1.18044	0.010	-8.46700	25.00000	Quadratic
150 Dibenz(a,h)anthracene	4.00000	4.37528	0.97255	0.010	-9.38210	25.00000	Quadratic
151 Benzo(g,h,i)perylene	4.00000	4.50241	1.10648	0.010	-12.56020	25.00000	Quadratic
$ 154 Nitrobenzene-d5	0.39484	0.41965	0.41965	0.010	-6.28231	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.33044	1.40931	1.40931	0.010	-5.92825	25.00000	Averaged
$ 156 Terphenyl-d14	0.85341	0.88052	0.88052	0.010	-3.17660	25.00000	Averaged
$ 157 Phenol-d5	1.62031	1.60491	1.60491	0.010	0.95079	25.00000	Averaged
$ 158 2-Fluorophenol	1.30430	1.20924	1.20924	0.010	7.28826	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.08713	0.08350	0.08350	0.010	4.16263	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.44482	1.49215	1.49215	0.010	-3.27625	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.00580	1.02522	1.02522	0.010	-1.93116	25.00000	Averaged

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H180480

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-90-SS	81	78	84	76	75	81	00
02	SD-90-01	69	69	73	58	60	77	00
03	SD-90-02	73	65	77	66	68	82	00
04	SD-90-02 RE-1	0 D	0 D	0 D	0 D	0 D	0 D	06
05	SD-90-04	66	60	63	57	56	77	00
06	SD-91-SS	45	51	48	39	44	65	00
07	SD-91-01	48	59	56	42	46	66	00
08	SD-94-SS	82	73	71	77	71	84	00
09	SD-94-01	63	63	63	61	56	72	00
10	SD-94-02	91	77	84	89	82	83	00
11	SD-94-04	108	99	107	97	93	108	00
12	SD-97-SS	80	69	78	72	71	82	00
13	SD-97-01	86	77	82	75	73	80	00
14	SD-97-02	70	59	65	64	64	64	00
15	SD-97-04	75	63	69	72	67	76	00
16	METHOD BLK. L5X051AA	80	78	77	75	79	77	00
17	LCS L5X051AC	79	74	84	76	79	88	00
18	LCSD L5X051AD	78	72	80	75	76	83	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-110)
SRG02	= Terphenyl-d14	(21-130)
SRG03	= 2-Fluorobiphenyl	(28-108)
SRG04	= 2-Fluorophenol	(28-107)
SRG05	= Phenol-d5	(30-112)
SRG06	= 2,4,6-Tribromophenol	(21-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200000 WO #: L5X051AC
BATCH: 0232395

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	238	71	39 - 105	
2-Chlorophenol	333	263	79	40 - 105	
1,4-Dichlorobenzene	333	258	77	41 - 101	
N-Nitrosodi-n-propylamine	333	255	77	42 - 108	
1,2,4-Trichlorobenzene	333	256	77	41 - 105	
4-Chloro-3-methylphenol	333	264	79	43 - 110	
Acenaphthene	333	264	79	42 - 104	
4-Nitrophenol	333	255	77	27 - 131	
2,4-Dinitrotoluene	333	291	87	48 - 118	
Pentachlorophenol	333	252	76	18 - 125	
Pyrene	333	237	71	39 - 113	
4-Methylphenol	667	492	74	43 - 107	
Hexachloroethane	333	255	77	40 - 102	
Naphthalene	333	259	78	42 - 104	
4-Bromophenyl phenyl ethe	333	264	79	43 - 111	
Butyl benzyl phthalate	333	254	76	40 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200000 WO #: L5X051AD
BATCH: 0232395

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	244	73	39 - 105	
2-Chlorophenol	333	268	80	40 - 105	
1,4-Dichlorobenzene	333	258	77	41 - 101	
N-Nitrosodi-n-propylamine	333	254	76	42 - 108	
1,2,4-Trichlorobenzene	333	262	79	41 - 105	
4-Chloro-3-methylphenol	333	267	80	43 - 110	
Acenaphthene	333	267	80	42 - 104	
4-Nitrophenol	333	255	76	27 - 131	
2,4-Dinitrotoluene	333	286	86	48 - 118	
Pentachlorophenol	333	273	82	18 - 125	
Pyrene	333	231	69	39 - 113	
4-Methylphenol	667	492	74	43 - 107	
Hexachloroethane	333	269	81	40 - 102	
Naphthalene	333	262	79	42 - 104	
4-Bromophenyl phenyl ethe	333	267	80	43 - 111	
Butyl benzyl phthalate	333	241	72	40 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L5X051AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: F0824006.

Lot Number: C0H180480

Date Analyzed: 08/24/10

Time Analyzed: 08:01

Matrix: SOLID

Date Extracted:08/20/10

GC Column: HP5MS ID: .25

Extraction Method:

Instrument ID: 722

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-90-SS	L5QXW1AD	F0824009.	08/24/10	09:00
02	SD-90-01	L5QX01AH	F0824010.	08/24/10	09:20
03	SD-90-02	L5QX11AH	F0824011.	08/24/10	09:39
04	SD-90-02	L5QX12AH	F0825005.	08/25/10	06:12
05	SD-90-04	L5QX21AC	F0824012.	08/24/10	09:59
06	SD-91-SS	L5QX31AC	F0824013.	08/24/10	10:19
07	SD-91-01	L5QX41AC	F0824014.	08/24/10	10:38
08	SD-94-SS	L5QX61AC	F0824015.	08/24/10	10:58
09	SD-94-01	L5QX71AC	F0824016.	08/24/10	11:17
10	SD-94-02	L5QX81AC	F0824017.	08/24/10	11:37
11	SD-94-04	L5QX91AC	F0824018.	08/24/10	11:56
12	SD-97-SS	L5Q0C1AC	F0824019.	08/24/10	12:16
13	SD-97-01	L5Q0D1AC	F0824020.	08/24/10	12:35
14	SD-97-02	L5Q0F1AC	F0824021.	08/24/10	12:55
15	SD-97-04	L5Q0K1AC	F0824022.	08/24/10	13:14
16	CHECK SAMPLE	L5X051AC C	F0824007.	08/24/10	08:21
17	DUPLICATE CHECK	L5X051AD L	F0824008.	08/24/10	08:40
18					
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30					

COMMENTS:

FORM IV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0813DF1 DFTPP Injection Date: 08/13/10

Instrument ID: 722 DFTPP Injection Time: 0531

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.6
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	2.76
441	Present, but less than mass 443	8.3
442	40.0 - 100.0% of mass 198	48.5
443	17.0 - 23.0% of mass 442	10.0 (20.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD2	SSTD2	F08130C2	08/13/10	0608
02	SSTD4	SSTD4	F08130C3	08/13/10	0629
03	SSTD10	SSTD10	F08130C4	08/13/10	0650
04	SSTD20	SSTD20	F08130C5	08/13/10	0710
05	SSTD40	SSTD40	F08130C6	08/13/10	0731
06	SSTD60	SSTD60	F08130C7	08/13/10	0752
07	SSTD80	SSTD80	F08130C8	08/13/10	0813
08	SSTD.4	SSTD.4	F08130C9	08/13/10	0833
09					
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0824DF1 DFTPP Injection Date: 08/24/10

Instrument ID: 722 DFTPP Injection Time: 0511

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	57.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.0
365	Greater than 1.0% of mass 198	2.79
441	Present, but less than mass 443	9.4
442	40.0 - 100.0% of mass 198	47.4
443	17.0 - 23.0% of mass 442	9.6 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	F08240C2	08/24/10	0545
02	INTRA-LAB BL	L5X051AA	F0824006	08/24/10	0801
03	INTRA-LAB CH	L5X051AC	F0824007	08/24/10	0821
04	INTRA-LAB CH	L5X051AD	F0824008	08/24/10	0840
05	SD-90-SS	L5QXW1AD	F0824009	08/24/10	0900
06	SD-90-01	L5QX01AH	F0824010	08/24/10	0920
07	SD-90-02	L5QX11AH	F0824011	08/24/10	0939
08	SD-90-04	L5QX21AC	F0824012	08/24/10	0959
09	SD-91-SS	L5QX31AC	F0824013	08/24/10	1019
10	SD-91-01	L5QX41AC	F0824014	08/24/10	1038
11	SD-94-SS	L5QX61AC	F0824015	08/24/10	1058
12	SD-94-01	L5QX71AC	F0824016	08/24/10	1117
13	SD-94-02	L5QX81AC	F0824017	08/24/10	1137
14	SD-94-04	L5QX91AC	F0824018	08/24/10	1156
15	SD-97-SS	L5Q0C1AC	F0824019	08/24/10	1216
16	SD-97-01	L5Q0D1AC	F0824020	08/24/10	1235
17	SD-97-02	L5Q0F1AC	F0824021	08/24/10	1255
18	SD-97-04	L5Q0K1AC	F0824022	08/24/10	1314
19					
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22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0825DF1 DFTPP Injection Date: 08/25/10

Instrument ID: 722 DFTPP Injection Time: 0340

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	55.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.8
275	10.0 - 30.0% of mass 198	23.7
365	Greater than 1.0% of mass 198	2.87
441	Present, but less than mass 443	8.3
442	40.0 - 100.0% of mass 198	43.5
443	17.0 - 23.0% of mass 442	9.2 (21.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	F08250C1	08/25/10	0354
02	SD-90-02	L5QX12AH	F0825005	08/25/10	0612
03					
04					
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FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H180480

Lab File ID (Standard): F08240C2 Date Analyzed: 08/24/10

Instrument ID: 722 Time Analyzed: 0545

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	69462	4.26	254629	5.27	136668	6.65
	UPPER LIMIT	138924	4.76	509258	5.77	273336	7.15
	LOWER LIMIT	34731	3.76	127315	4.77	68334	6.15
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	73932	4.26	271969	5.27	151271	6.64
02	INTRA-LAB CH	76038	4.26	275499	5.27	138774	6.65
03	INTRA-LAB CH	70608	4.27	253178	5.27	130021	6.65
04	SD-90-SS	61973	4.26	216219	5.27	121858	6.65
05	SD-90-01	60642	4.26	202843	5.27	115005	6.64
06	SD-90-02	59990	4.26	213391	5.27	125437	6.65
07	SD-90-04	64023	4.27	211327	5.28	124013	6.65
08	SD-91-SS	66001	4.27	227981	5.28	129501	6.65
09	SD-91-01	66078	4.26	224324	5.27	127548	6.64
10	SD-94-SS	61739	4.26	204932	5.27	120655	6.64
11	SD-94-01	54600	4.26	185216	5.27	100145	6.64
12	SD-94-02	51687	4.27	180412	5.27	107091	6.64
13	SD-94-04	44440	4.26	144980	5.27	81381	6.64
14	SD-97-SS	67549	4.26	224336	5.27	126786	6.64
15	SD-97-01	63457	4.26	207324	5.27	120711	6.64
16	SD-97-02	59806	4.26	213143	5.27	129196	6.64
17	SD-97-04	56313	4.27	200978	5.27	125830	6.65
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H180480

Lab File ID (Standard): F08250C1 Date Analyzed: 08/25/10

Instrument ID: 722 Time Analyzed: 0354

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	239899		7.79		203714		10.13		183184		11.69	
	UPPER LIMIT	479798		8.29		407428		10.63		366368		12.19	
	LOWER LIMIT	119950		7.29		101857		9.63		91592		11.19	
	CLIENT SAMPLE NO.												
01	SD-90-02	292824		7.79		326638		10.13		340690		11.70	
02													
03													
04													
05													
06													
07													
08													
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18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H180480

Lab File ID (Standard): F08240C2 Date Analyzed: 08/24/10

Instrument ID: 722 Time Analyzed: 0545

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	192017		7.82		167205		10.18		172299		11.76	
	UPPER LIMIT	384034		8.32		334410		10.68		344598		12.26	
	LOWER LIMIT	96009		7.32		83603		9.68		86150		11.26	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	209182		7.81		183816		10.17		189637		11.74	
02	INTRA-LAB CH	210053		7.81		222164		10.17		213914		11.74	
03	INTRA-LAB CH	195051		7.81		215407		10.17		219580		11.74	
04	SD-90-SS	201213		7.81		254207		10.17		282473		11.74	
05	SD-90-01	195987		7.81		275332		10.18		324677		11.76	
06	SD-90-02	222321		7.82		363690*		10.18		433305*		11.77	
07	SD-90-04	211980		7.82		287039		10.17		357221*		11.74	
08	SD-91-SS	210954		7.81		270746		10.17		314650		11.74	
09	SD-91-01	209394		7.81		277865		10.17		310415		11.74	
10	SD-94-SS	202410		7.81		265691		10.16		304998		11.72	
11	SD-94-01	174021		7.81		221566		10.16		258048		11.72	
12	SD-94-02	180068		7.81		237687		10.16		269374		11.72	
13	SD-94-04	136551		7.80		181877		10.15		210827		11.73	
14	SD-97-SS	208294		7.81		281734		10.16		312485		11.73	
15	SD-97-01	203948		7.80		258579		10.16		304924		11.72	
16	SD-97-02	228642		7.81		309309		10.16		393755*		11.73	
17	SD-97-04	216847		7.80		283032		10.16		346389*		11.72	
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-003	Work Order #...:	L5QX11AH	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:20	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:39		
Dilution Factor:	2.48	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	58	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	230	40	ug/kg	3.4
Acenaphthylene	460	40	ug/kg	4.6
Acenaphthene	410	40	ug/kg	3.8
Fluorene	560	40	ug/kg	5.2
Phenanthrene	4600	40	ug/kg	6.3
Anthracene	1300	40	ug/kg	3.9
Fluoranthene	13000 E	40	ug/kg	4.3
✓ Pyrene	7300	40	ug/kg	4.0
✓ Benzo(a)anthracene	5000	40	ug/kg	5.0
✓ Chrysene	5400	40	ug/kg	4.7
✓ Benzo(b)fluoranthene	7300	40	ug/kg	6.3
✓ Benzo(k)fluoranthene	ND	40	ug/kg	8.0
✓ Benzo(a)pyrene	5100	40	ug/kg	4.0
✓ Indeno(1,2,3-cd)pyrene	2900	40	ug/kg	4.1
✓ Dibenzo(a,h)anthracene	1000	40	ug/kg	4.4
✓ Benzo(ghi)perylene	3100	40	ug/kg	4.0

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SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	77	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	82	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

Tetra Tech NUS, Inc

Client Sample ID: SD-90-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-004	Work Order #...:	L5QX21AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 10:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	09:59		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	43	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	8.5 J	30	ug/kg	2.5
Acenaphthylene	27 J	30	ug/kg	3.4
Acenaphthene	10 J	30	ug/kg	2.8
Fluorene	24 J	30	ug/kg	3.9
Phenanthrene	56	30	ug/kg	4.7
Anthracene	26 J	30	ug/kg	2.9
Fluoranthene	160	30	ug/kg	3.1
Pyrene	120	30	ug/kg	3.0
Benzo(a)anthracene	73	30	ug/kg	3.7
Chrysene	82	30	ug/kg	3.5
Benzo(b)fluoranthene	93 → J, N	30	ug/kg	4.6
Benzo(k)fluoranthene	X ND	30	ug/kg	5.9
Benzo(a)pyrene	63	30	ug/kg	2.9
Indeno(1,2,3-cd)pyrene	78	30	ug/kg	3.0
Dibenzo(a,h)anthracene	51	30	ug/kg	3.3
Benzo(ghi)perylene	69	30	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	66	(27 - 110)
Terphenyl-d14	60	(21 - 130)
2-Fluorobiphenyl	63	(28 - 108)
2-Fluorophenol	57	(28 - 107)
Phenol-d5	56	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-013	Work Order #...:	L5Q0F1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:30	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	12:55		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	61	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	43	ug/kg	3.7
Acenaphthylene	11 J	43	ug/kg	4.9
Acenaphthene	ND	43	ug/kg	4.1
Fluorene	ND	43	ug/kg	5.6
Phenanthrene	40 J	43	ug/kg	6.8
Anthracene	17 J	43	ug/kg	4.2
Fluoranthene	150	43	ug/kg	4.6
Pyrene	100	43	ug/kg	4.3
Benzo(a)anthracene	48	43	ug/kg	5.3
Chrysene	90	43	ug/kg	5.1
Benzo(b)fluoranthene	67 — J,N	43	ug/kg	6.7
Benzo(k)fluoranthene	ND	43	ug/kg	8.6
Benzo(a)pyrene	34 J — J,N	43	ug/kg	4.3
Indeno(1,2,3-cd)pyrene	82 — J,N	43	ug/kg	4.4
Dibenzo(a,h)anthracene	ND	43	ug/kg	4.7
Benzo(ghi)perylene	80 — J,N	43	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	59	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	64	(28 - 107)
Phenol-d5	64	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-97-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H180480-014	Work Order #...:	L5Q0K1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10 12:35	Date Received..:	08/18/10 10:00	MS Run #.....:	
Prep Date.....:	08/20/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0232395	Analysis Time..:	13:14		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	59	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	41	ug/kg	3.5
Acenaphthylene	ND	41	ug/kg	4.7
Acenaphthene	ND	41	ug/kg	3.9
Fluorene	ND	41	ug/kg	5.4
Phenanthrene	ND	41	ug/kg	6.5
Anthracene	ND	41	ug/kg	4.0
Fluoranthene	ND	41	ug/kg	4.4
Pyrene	ND	41	ug/kg	4.1
Benzo(a)anthracene	ND	41	ug/kg	5.1
Chrysene	ND	41	ug/kg	4.9
Benzo(b)fluoranthene	ND	41	ug/kg	6.4
Benzo(k)fluoranthene	ND	41	ug/kg	8.2
Benzo(a)pyrene	ND	41	ug/kg	4.1
Indeno(1,2,3-cd)pyrene	ND	41	ug/kg	4.2
Dibenzo(a,h)anthracene	ND	41	ug/kg	4.5
Benzo(ghi)perylene	ND	41	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	67	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Simulate Run Sequence Tue Aug 24 06:38:41 2010

Instrument Name: GC/MS Instrument #1
Sequence File: C:\HPCHEM\1\SEQUENCE\082410.S
Comment: STL- PITT HP5973-2 LOG 2ul inj 100ul+1ul int
Operator: 007062
Data Path: d:\HPCHEM\1\DATA\082410.b\
Method Path: C:\HPCHEM\1\METHODS\

8270 (7) 8/24/10 KBB

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	99	F0824CL1	FFAST	Clean Out Blank
2)	Sample	99	F0824CL2	FFAST	Clean Out Blank
3)	Sample	1	F0824DF1	DFTPP	DFTPP050 (25ug/ml) BNA0170-10
4)	Sample	2	F08240C1	FFAST	SSTD4 (2ug/ml) BNA0668-10
5)	Sample	2	F08240C2	FFAST	SSTD4 (2ug/ml) BNA0668-10
6)	Sample	100	F08240B6	FFAST	Clean Out Blank
7)	Sample	3	F0824001	FFAST	C0H190402-BLK 8/23/10 TCLP (0235244)
8)	Sample	4	F0824002	FFAST	C0H190402-LCS 8/23/10 TCLP (0235244)
9)	Sample	5	F0824003	FFAST	C0H190402-LCSD 8/23/10 TCLP (0235244)
10)	Sample	6	F0824004	FFAST	C0H190402-001 8/23/10 TCLP (0235244)
11)	Sample	7	F0824005	FFAST	C0H120570-007 8/23/10 TCLP (0235244)
12)	Sample	8	F0824006	FFAST	C0H180480-BLK 8/20/10 Soil (0232395)
13)	Sample	9	F0824007	FFAST	C0H180480-LCS 8/20/10 Soil (0232395)
14)	Sample	10	F0824008	FFAST	C0H180480-LCSD 8/20/10 Soil (0232395)
15)	Sample	11	F0824009	FFAST	C0H180480-001 x5 8/20/10 Soil (0232395)
16)	Sample	12	F0824010	FFAST	C0H180480-002 x5 8/20/10 Soil (0232395)
17)	Sample	13	F0824011	FFAST	C0H180480-003 x5 8/20/10 Soil (0232395)
18)	Sample	14	F0824012	FFAST	C0H180480-004 x5 8/20/10 Soil (0232395)
19)	Sample	15	F0824013	FFAST	C0H180480-005 x5 8/20/10 Soil (0232395)
20)	Sample	16	F0824014	FFAST	C0H180480-006 x5 8/20/10 Soil (0232395)
21)	Sample	17	F0824015	FFAST	C0H180480-007 x5 8/20/10 Soil (0232395)
22)	Sample	18	F0824016	FFAST	C0H180480-008 x5 8/20/10 Soil (0232395)
23)	Sample	19	F0824017	FFAST	C0H180480-009 x5 8/20/10 Soil (0232395)
24)	Sample	20	F0824018	FFAST	C0H180480-010 x5 8/20/10 Soil (0232395)
25)	Sample	21	F0824019	FFAST	C0H180480-011 x5 8/20/10 Soil (0232395)
26)	Sample	22	F0824020	FFAST	C0H180480-012 x5 8/20/10 Soil (0232395)
27)	Sample	23	F0824021	FFAST	C0H180480-013 x5 8/20/10 Soil (0232395)
28)	Sample	24	F0824022	FFAST	C0H180480-014 x5 8/20/10 Soil (0232395)
29)	Sample	25	F0824023	FFAST	C0H110453-BLK 2/21/10 TCLP C18 (0233078)
30)	Sample	26	F0824024	FFAST	C0H110453-LCS 2/21/10 TCLP C18 (0233078)
31)	Sample	27	F0824025	FFAST	C0H110453-LCSD 2/21/10 TCLP C18 (0233078)
32)	Sample	28	F0824026	FFAST	C0H110453-001 2/21/10 TCLP C18 (0233078)
33)	Sample	29	F0824027	FFAST	C0H130589-001 2/21/10 TCLP C18 (0233078)
34)	Sample	30	F0824028	FFAST	C0H170462-001 2/21/10 TCLP C18 (0233078)
35)	Sample	31	F0824029	FFAST	C0H190546-001 2/21/10 TCLP C18 (0233078)
36)	Sample	32	F0824030	FFAST	C0H180471-001 x100 8/20/10 2g/1ml (0232379)
37)	Sample	100	F08240B1	FFAST	Clean Out Blank
38)	Sample	100	F08240B2	FFAST	Clean Out Blank
39)	Sample	100	F08240B3	FFAST	Clean Out Blank
40)	Sample	100	F08240B4	FFAST	Clean Out Blank
41)	Sample	100	F08240B5	FFAST	Clean Out Blank

Bytes Needed: 2000565 Space on drive D: 1023932928
Sequence Verification Done!

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: C0H180480 Work Order #...: L5X051AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: C0H200000-395 L5X051AD-LCSD
Prep Date.....: 08/20/10 Analysis Date..: 08/24/10
Prep Batch #...: 0232395 Analysis Time..: 08:21
Dilution Factor: 0.5 Initial Wgt/Vol: 30 g Final Wgt/Vol..: 0.5 mL
Analyst ID.....: 007062 Instrument ID..: 722

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Naphthalene	78	(42 - 104)			SW846 8270C
	79	(42 - 104)	0.86	(0-25)	SW846 8270C
Phenol	71	(39 - 105)			SW846 8270C
	73	(39 - 105)	2.6	(0-40)	SW846 8270C
2-Chlorophenol	79	(40 - 105)			SW846 8270C
	80	(40 - 105)	1.7	(0-37)	SW846 8270C
Acenaphthene	79	(42 - 104)			SW846 8270C
	80	(42 - 104)	0.99	(0-34)	SW846 8270C
1,4-Dichlorobenzene	77	(41 - 101)			SW846 8270C
	77	(41 - 101)	0.080	(0-32)	SW846 8270C
N-Nitrosodi-n-propyl-amine	77	(42 - 108)			SW846 8270C
	76	(42 - 108)	0.60	(0-32)	SW846 8270C
1,2,4-Trichloro-benzene	77	(41 - 105)			SW846 8270C
	79	(41 - 105)	2.3	(0-36)	SW846 8270C
Pyrene	71	(39 - 113)			SW846 8270C
	69	(39 - 113)	2.3	(0-28)	SW846 8270C
4-Chloro-3-methylphenol	79	(43 - 110)			SW846 8270C
	80	(43 - 110)	1.3	(0-31)	SW846 8270C
4-Nitrophenol	77	(27 - 131)			SW846 8270C
	76	(27 - 131)	0.21	(0-33)	SW846 8270C
2,4-Dinitrotoluene	87	(48 - 118)			SW846 8270C
	86	(48 - 118)	1.6	(0-33)	SW846 8270C
Pentachlorophenol	76	(18 - 125)			SW846 8270C
	82	(18 - 125)	7.8	(0-34)	SW846 8270C
4-Methylphenol	74	(43 - 107)			SW846 8270C
	74	(43 - 107)	0.070	(0-36)	SW846 8270C
Hexachloroethane	77	(40 - 102)			SW846 8270C
	81	(40 - 102)	5.2	(0-34)	SW846 8270C
4-Bromophenyl phenyl ether	79	(43 - 111)			SW846 8270C
	80	(43 - 111)	1.2	(0-20)	SW846 8270C
Butyl benzyl phthalate	76	(40 - 117)			SW846 8270C
	72	(40 - 117)	5.3	(0-34)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: C0H180480 **Work Order #...:** L5X051AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: C0H200000-395 L5X051AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	79	(27 - 110)
	78	(27 - 110)
Terphenyl-d14	74	(21 - 130)
	72	(21 - 130)
2-Fluorobiphenyl	84	(28 - 108)
	80	(28 - 108)
2-Fluorophenol	76	(28 - 107)
	75	(28 - 107)
Phenol-d5	79	(30 - 112)
	76	(30 - 112)
2,4,6-Tribromophenol	88	(21 - 116)
	83	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H180480	**Work Order #...:** L5X051AA	**Matrix.....:** SOLID
MB Lot-Sample #: C0H200000-395		
	Prep Date.....: 08/20/10	**Analysis Time..:** 08:01
Analysis Date..: 08/24/10	**Prep Batch #...:** 0232395	**Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5	**Initial Wgt/Vol:** 30 g	**Instrument ID..:** 722
	Analyst ID.....: 007062	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	78	(21 - 130)
2-Fluorobiphenyl	77	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	79	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Test America Pittsburgh
- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H180480

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			**ICV1 MET4061-10**						
	Antimony	0.0829	0.0800	103.6	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Arsenic	0.0794	0.0800	99.2	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Barium	0.0814	0.0800	101.7	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Beryllium	0.0815	0.0800	101.9	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Cadmium	0.0807	0.0800	100.9	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Chromium	0.0788	0.0800	98.5	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Copper	0.0802	0.0800	100.2	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Lead	0.0802	0.0800	100.2	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Nickel	0.0793	0.0800	99.1	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Selenium	0.0804	0.0800	100.5	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Silver	0.0817	0.0800	102.1	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Thallium	0.0833	0.0800	104.1	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
	Zinc	0.0807	0.0800	100.9	90.0 - 110.0	MS	8/28/2010	15:32	M00828A, gen
CCV1			**CCV1-1 MET4282-10**						
	Antimony	0.0955	0.1000	95.5	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Arsenic	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Barium	0.0958	0.1000	95.8	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Beryllium	0.1025	0.1000	102.5	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Cadmium	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Chromium	0.0975	0.1000	97.5	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Copper	0.0985	0.1000	98.5	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Lead	0.1006	0.1000	100.6	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Nickel	0.0985	0.1000	98.5	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Selenium	0.1010	0.1000	101.0	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Silver	0.0991	0.1000	99.1	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Thallium	0.1006	0.1000	100.6	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen
	Zinc	0.1017	0.1000	101.7	90.0 - 110.0	MS	8/28/2010	16:00	M00828A, gen

Test America Pittsburgh

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H180480

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0938	0.1000	93.8	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Arsenic	0.0986	0.1000	98.6	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Barium	0.0950	0.1000	95.0	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Beryllium	0.0995	0.1000	99.5	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Cadmium	0.0984	0.1000	98.4	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Chromium	0.0998	0.1000	99.8	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Copper	0.1009	0.1000	100.9	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Lead	0.1041	0.1000	104.1	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Nickel	0.1008	0.1000	100.8	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Selenium	0.1008	0.1000	100.8	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Silver	0.0986	0.1000	98.6	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Thallium	0.1037	0.1000	103.7	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
	Zinc	0.1057	0.1000	105.7	90.0 - 110.0	MS	8/28/2010	17:06	M00828A, gen
CCV3			CCV1-3						
	Antimony	0.0947	0.1000	94.7	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Arsenic	0.0977	0.1000	97.7	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Barium	0.0950	0.1000	95.0	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Beryllium	0.0997	0.1000	99.7	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Cadmium	0.0993	0.1000	99.3	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Chromium	0.0992	0.1000	99.2	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Copper	0.0996	0.1000	99.6	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Lead	0.1037	0.1000	103.7	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Nickel	0.0997	0.1000	99.7	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Selenium	0.1006	0.1000	100.6	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Silver	0.0984	0.1000	98.4	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Thallium	0.1034	0.1000	103.4	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen
	Zinc	0.1062	0.1000	106.2	90.0 - 110.0	MS	8/28/2010	18:07	M00828A, gen

Test America Pittsburgh
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H180480

Initial Calibration Source: Inorganic

Instrument: ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4			CCV1-4						
	Antimony	0.0947	0.1000	94.7	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Arsenic	0.0967	0.1000	96.7	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Barium	0.0961	0.1000	96.1	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Beryllium	0.0983	0.1000	98.3	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Cadmium	0.1003	0.1000	100.3	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Chromium	0.0968	0.1000	96.8	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Copper	0.0976	0.1000	97.6	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Lead	0.1039	0.1000	103.9	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Nickel	0.0984	0.1000	98.4	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Selenium	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Silver	0.1012	0.1000	101.2	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Thallium	0.1036	0.1000	103.6	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
	Zinc	0.1050	0.1000	105.0	90.0 - 110.0	MS	8/28/2010	19:10	M00828A, gen
CCV5			CCV1-5						
	Antimony	0.0951	0.1000	95.1	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Arsenic	0.0986	0.1000	98.6	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Barium	0.0960	0.1000	96.0	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Beryllium	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Cadmium	0.0983	0.1000	98.3	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Chromium	0.0995	0.1000	99.5	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Copper	0.0998	0.1000	99.8	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Lead	0.1028	0.1000	102.8	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Nickel	0.0993	0.1000	99.3	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Selenium	0.1003	0.1000	100.3	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Silver	0.0980	0.1000	98.0	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Thallium	0.1027	0.1000	102.7	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen
	Zinc	0.1062	0.1000	106.2	90.0 - 110.0	MS	8/28/2010	20:11	M00828A, gen

Test America Pittsburgh
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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H180480

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6			CCV1-6						
	Antimony	0.0953	0.1000	95.3	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Arsenic	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Barium	0.0958	0.1000	95.8	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Beryllium	0.0959	0.1000	95.9	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Cadmium	0.0974	0.1000	97.4	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Chromium	0.1000	0.1000	100.0	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Copper	0.0983	0.1000	98.3	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Lead	0.1018	0.1000	101.8	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Nickel	0.0990	0.1000	99.0	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Selenium	0.1015	0.1000	101.5	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Thallium	0.1018	0.1000	101.8	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
	Zinc	0.1054	0.1000	105.4	90.0 - 110.0	MS	8/28/2010	21:15	M00828A, gen
CCV7			CCV1-7						
	Antimony	0.0954	0.1000	95.4	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Arsenic	0.0987	0.1000	98.7	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Barium	0.0953	0.1000	95.3	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Beryllium	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Cadmium	0.0977	0.1000	97.7	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Chromium	0.0998	0.1000	99.8	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Copper	0.0999	0.1000	99.9	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Lead	0.1003	0.1000	100.3	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Nickel	0.1000	0.1000	100.0	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Selenium	0.1009	0.1000	100.9	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Silver	0.0968	0.1000	96.8	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Thallium	0.1001	0.1000	100.1	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen
	Zinc	0.1054	0.1000	105.4	90.0 - 110.0	MS	8/28/2010	22:12	M00828A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H180480

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8			**CCV1-8**						
	Antimony	0.0956	0.1000	95.6	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Arsenic	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Barium	0.0956	0.1000	95.6	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Beryllium	0.0956	0.1000	95.6	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Cadmium	0.0967	0.1000	96.7	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Chromium	0.0985	0.1000	98.5	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Copper	0.0981	0.1000	98.1	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Lead	0.0991	0.1000	99.1	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Nickel	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Selenium	0.1010	0.1000	101.0	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Silver	0.0966	0.1000	96.6	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Thallium	0.0992	0.1000	99.2	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
	Zinc	0.1032	0.1000	103.2	90.0 - 110.0	MS	8/28/2010	22:56	M00828A, gen
ICV1			**ICV1 MET4061-10**						
	Copper	0.0810	0.0800	101.2	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
CCV1			**CCV1-1 MET4282-10**						
	Copper	0.0996	0.1000	99.6	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
CCV2			**CCV1-2**						
	Copper	0.0995	0.1000	99.5	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H180480 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Beryllium	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AD
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AE
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.025 B**	**0.10**	**mg/kg**	**SW846 6020**	**08/27-08/28/10**	**L57DV1AF**
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	**0.15**	**0.10**	**mg/kg**	**SW846 6020**	**08/27-08/30/10**	**L57DV1AG**
		Dilution Factor: 0.5				
		Analysis Time..: 16:13		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AJ
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AH
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AL
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AA
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AM
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AN
		Dilution Factor: 0.5				
		Analysis Time..: 20:42		Analyst ID.....: 400149	Instrument ID..: ICP	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH

SDG No.: C0H180480

ICS Source: EPA

Instrument ID: ICPMS

Sample ID / Analyte	WL/Mass	Result mg/L	Qual	True Value mg/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4063-10									
Antimony	121Sb	0.00021				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Arsenic	75As	0.00045				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Barium	137Ba	0.00036				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Beryllium	9Be	0.00017				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Cadmium	111Cd	0.00084				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Chromium	52Cr	0.00003				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Copper	65Cu	0.00291				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Lead	208Pb	0.00034				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Nickel	60Ni	0.00092				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Selenium	82Se	0.00068				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Silver	107Ag	0.00021				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Thallium	205Tl	0.00027				0.0 - 0.0	8/28/2010	15:48	M00828A, g
Zinc	66Zn	0.00509				0.0 - 0.0	8/28/2010	15:48	M00828A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02086		0.02000	104.3	80 - 120%	8/28/2010	15:52	M00828A, g
Arsenic	75As	0.02116		0.02000	105.8	80 - 120%	8/28/2010	15:52	M00828A, g
Barium	137Ba	0.02060		0.02000	103.0	80 - 120%	8/28/2010	15:52	M00828A, g
Beryllium	9Be	0.02043		0.02000	102.2	80 - 120%	8/28/2010	15:52	M00828A, g
Cadmium	111Cd	0.02079		0.02000	104.0	80 - 120%	8/28/2010	15:52	M00828A, g
Chromium	52Cr	0.01951		0.02000	97.6	80 - 120%	8/28/2010	15:52	M00828A, g
Copper	65Cu	0.02281		0.02000	114.0	80 - 120%	8/28/2010	15:52	M00828A, g
Lead	208Pb	0.01909		0.02000	95.4	80 - 120%	8/28/2010	15:52	M00828A, g
Nickel	60Ni	0.02064		0.02000	103.2	80 - 120%	8/28/2010	15:52	M00828A, g
Selenium	82Se	0.05154		0.05000	103.1	80 - 120%	8/28/2010	15:52	M00828A, g
Silver	107Ag	0.02047		0.02000	102.4	80 - 120%	8/28/2010	15:52	M00828A, g
Thallium	205Tl	0.01902		0.02000	95.1	80 - 120%	8/28/2010	15:52	M00828A, g
Zinc	66Zn	0.02588		0.02500	103.5	80 - 120%	8/28/2010	15:52	M00828A, g
ICSA MET4063-10									
Copper	65Cu	0.00256				0.0 - 0.0	8/30/2010	15:07	M00830A, g
ICSAB MET3848-10									
Copper	65Cu	0.02278		0.02000	113.9	80 - 120%	8/30/2010	15:12	M00830A, g

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	100	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	102	(80 - 120)	1.9	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Silver	92	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	92	(80 - 120)	0.62	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Cadmium	90	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	93	(80 - 120)	2.9	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Copper	98	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	99	(80 - 120)	1.3	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Nickel	97	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	98	(80 - 120)	1.7	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Lead	97	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	98	(80 - 120)	1.6	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Zinc	102	(80 - 120)			EPA SEM	08/24-08/25/10	0236124
	104	(80 - 120)	2.0	(0-20)	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1			Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium	0.0962	0.0962	umoles/g	100		EPA SEM	08/24-08/25/10	0236124
	0.0962	0.0981	umoles/g	102	1.9	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Silver	0.0116	0.0106	umoles/g	92		EPA SEM	08/24-08/25/10	0236124
	0.0116	0.0107	umoles/g	92	0.62	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Cadmium	0.0111	0.00999	umoles/g	90		EPA SEM	08/24-08/25/10	0236124
	0.0111	0.0103	umoles/g	93	2.9	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Copper	0.0984	0.0964	umoles/g	98		EPA SEM	08/24-08/25/10	0236124
	0.0984	0.0977	umoles/g	99	1.3	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Nickel	0.213	0.206	umoles/g	97		EPA SEM	08/24-08/25/10	0236124
	0.213	0.210	umoles/g	98	1.7	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Lead	0.0603	0.0583	umoles/g	97		EPA SEM	08/24-08/25/10	0236124
	0.0603	0.0592	umoles/g	98	1.6	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Zinc	0.191	0.195	umoles/g	102		EPA SEM	08/24-08/25/10	0236124
	0.191	0.198	umoles/g	104	2.0	EPA SEM	08/24-08/25/10	0236124
		Dilution Factor: 1				Analysis Time..: 19:14	Analyst ID.....: 403938	
		Instrument ID..: TRA						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0H240000-022 **Prep Batch #...:** 0236022					
Mercury	97	(80 - 120)	SW846 7471A	08/24/10	L52CP1AC
		Dilution Factor: 0.5	Analysis Time..: 08:46	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0H270000-078 **Prep Batch #...:** 0239078					
Silver	99	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AP
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	91	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AQ
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	94	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AR
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	98	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AT
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	100	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AU
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	103	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AV
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Nickel	101	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AW
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Lead	102	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1AX
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	94	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1A0
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	99	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1A1
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Thallium	100	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1A2
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	103	(80 - 120)	SW846 6020	08/27-08/28/10	L57DV1A3
		Dilution Factor: 0.5	Analysis Time..: 20:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0H240000-022 **Prep Batch #...:** 0236022							
Mercury	0.208	0.202	mg/kg	97	SW846 7471A	08/24/10	L52CP1AC
			Dilution Factor: 0.5		Analysis Time..: 08:46	Analyst ID.....: 031043	
			Instrument ID..: HGHYDRA				
LCS Lot-Sample#: C0H270000-078 **Prep Batch #...:** 0239078							
Silver	2.50	2.47	mg/kg	99	SW846 6020	08/27-08/28/10	L57DV1AP
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Arsenic	2.00	1.82	mg/kg	91	SW846 6020	08/27-08/28/10	L57DV1AQ
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Beryllium	2.50	2.34	mg/kg	94	SW846 6020	08/27-08/28/10	L57DV1AR
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Cadmium	2.50	2.45	mg/kg	98	SW846 6020	08/27-08/28/10	L57DV1AT
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Chromium	10.0	10.0	mg/kg	100	SW846 6020	08/27-08/28/10	L57DV1AU
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Copper	12.5	12.9	mg/kg	103	SW846 6020	08/27-08/28/10	L57DV1AV
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Nickel	25.0	25.3	mg/kg	101	SW846 6020	08/27-08/28/10	L57DV1AW
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Lead	1.00	1.02	mg/kg	102	SW846 6020	08/27-08/28/10	L57DV1AX
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Antimony	25.0	23.6	mg/kg	94	SW846 6020	08/27-08/28/10	L57DV1A0
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	0.500	0.494	mg/kg	99	SW846 6020	08/27-08/28/10	L57DV1A1
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Thallium	2.50	2.51	mg/kg	100	SW846 6020	08/27-08/28/10	L57DV1A2
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Zinc	25.0	25.8	mg/kg	103	SW846 6020	08/27-08/28/10	L57DV1A3
			Dilution Factor: 0.5		Analysis Time..: 20:47	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H180480
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H180480-001 **Prep Batch #...:** 0239078							
Antimony	60 N	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CV
	60 N	(75 - 125)	0.25	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CW
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Arsenic	83	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CE
	86	(75 - 125)	0.99	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CF
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Beryllium	91	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CG
	91	(75 - 125)	0.01	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CH
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Cadmium	92	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CJ
	93	(75 - 125)	0.55	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CK
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Chromium	125	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CL
	113	(75 - 125)	2.9	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CM
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Copper	72 N	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CN
	76	(75 - 125)	1.1	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CP
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Lead	NC	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CT
	NC	(75 - 125)		(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CU
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					

% Moisture.....: 73

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	88	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CQ
	89	(75 - 125)	0.20	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CR
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Selenium	87	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CX
	90	(75 - 125)	1.6	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1C0
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Silver	86	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1CC
	83	(75 - 125)	2.0	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1CD
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Thallium	91	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1C1
	91	(75 - 125)	0.45	(0-20)	SW846 6020	08/27-08/28/10	L5QXW1C2
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					
Zinc	NC	(75 - 125)			SW846 6020	08/27-08/28/10	L5QXW1C3
	NC	(75 - 125)		(0-20)	SW846 6020	08/27-08/28/10	L5QXW1C4
		Dilution Factor: 0.5					
		Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0239051					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H180480-001 **Prep Batch #...:** 0239078									
								% Moisture.....: 73	
Antimony									
	1.4	91.8	57.0 N	mg/kg	60		SW846 6020	08/27-08/28/10	L5QXW1CV
	1.4	91.8	56.8 N	mg/kg	60	0.25	SW846 6020	08/27-08/28/10	L5QXW1CW
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						
Arsenic									
	8.9	7.35	15.0	mg/kg	83		SW846 6020	08/27-08/28/10	L5QXW1CE
	8.9	7.35	15.2	mg/kg	86	0.99	SW846 6020	08/27-08/28/10	L5QXW1CF
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						
Beryllium									
	1.8	9.18	10.2	mg/kg	91		SW846 6020	08/27-08/28/10	L5QXW1CG
	1.8	9.18	10.2	mg/kg	91	0.01	SW846 6020	08/27-08/28/10	L5QXW1CH
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						
Cadmium									
	5.2	9.18	13.6	mg/kg	92		SW846 6020	08/27-08/28/10	L5QXW1CJ
	5.2	9.18	13.7	mg/kg	93	0.55	SW846 6020	08/27-08/28/10	L5QXW1CK
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						
Chromium									
	110	36.7	156	mg/kg	125		SW846 6020	08/27-08/28/10	L5QXW1CL
	110	36.7	151	mg/kg	113	2.9	SW846 6020	08/27-08/28/10	L5QXW1CM
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						
Copper									
	116	45.9	149 N	mg/kg	72		SW846 6020	08/27-08/28/10	L5QXW1CN
	116	45.9	150	mg/kg	76	1.1	SW846 6020	08/27-08/28/10	L5QXW1CP
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2		Analyst ID.....: 400149		
			MS Run #.....: 0239051						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead									
	111	3.67	118 NC	mg/kg			SW846 6020	08/27-08/28/10	L5QXW1CT
	111	3.67	115 NC	mg/kg			SW846 6020	08/27-08/28/10	L5QXW1CU
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						
Nickel									
	36.4	91.8	118	mg/kg	88		SW846 6020	08/27-08/28/10	L5QXW1CQ
	36.4	91.8	118	mg/kg	89	0.20	SW846 6020	08/27-08/28/10	L5QXW1CR
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						
Selenium									
	1.8	1.84	3.40	mg/kg	87		SW846 6020	08/27-08/28/10	L5QXW1CX
	1.8	1.84	3.46	mg/kg	90	1.6	SW846 6020	08/27-08/28/10	L5QXW1C0
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						
Silver									
	2.8	9.18	10.6	mg/kg	86		SW846 6020	08/27-08/28/10	L5QXW1CC
	2.8	9.18	10.4	mg/kg	83	2.0	SW846 6020	08/27-08/28/10	L5QXW1CD
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						
Thallium									
	0.24	9.18	8.56	mg/kg	91		SW846 6020	08/27-08/28/10	L5QXW1C1
	0.24	9.18	8.60	mg/kg	91	0.45	SW846 6020	08/27-08/28/10	L5QXW1C2
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						
Zinc									
	382	91.8	473 NC	mg/kg			SW846 6020	08/27-08/28/10	L5QXW1C3
	382	91.8	464 NC	mg/kg			SW846 6020	08/27-08/28/10	L5QXW1C4
			Dilution Factor: 0.5						
			Analysis Time..: 21:03		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0239051						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H180480-002 **Prep Batch #...:** 0236022							
						% Moisture.....: 62	
Mercury	NC	(75 - 125)			SW846 7471A	08/24/10	L5QX01A8
	NC	(75 - 125)		(0-20)	SW846 7471A	08/24/10	L5QX01A9

Dilution Factor: 0.5
Analysis Time..: 08:55 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0236010

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/18/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H180480-002 **Prep Batch #...:** 0236022									
								% Moisture.....: 62	
Mercury									
	2.0	0.443	1.21	NC mg/kg			SW846 7471A	08/24/10	L5QX01A8
	2.0	0.443	1.22	NC mg/kg			SW846 7471A	08/24/10	L5QX01A9

Dilution Factor: 0.5
Analysis Time..: 08:55 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0236010

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

Test America Pittsburgh

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H180480

Sample ID: L5QXW **Serial Dilution ID:** SD-90-SSL **Client ID:** SD-90-SSL

Batch Number: 0236079 **Prep Date:** 8/24/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 27.2 **Instrument:** ICPMS

TOTAL METALS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	1.43497		8/28/2010 20:55	5	1.12968	J	8/28/2010 20:59	21.3	E	10.00 %
Arsenic	1	8.89236		8/28/2010 20:55	5	8.40007		8/28/2010 20:59	5.5		10.00 %
Beryllium	1	1.82678		8/28/2010 20:55	5	1.67524		8/28/2010 20:59	8.3		10.00 %
Cadmium	1	5.17267		8/28/2010 20:55	5	4.72447		8/28/2010 20:59	8.7		10.00 %
Chromium	1	109.91920		8/28/2010 20:55	5	103.32480		8/28/2010 20:59	6.0		10.00 %
Copper	1	115.72370		8/28/2010 20:55	5	111.03970		8/28/2010 20:59	4.0		10.00 %
Lead	1	111.13150		8/28/2010 20:55	5	97.72227		8/28/2010 20:59	12.1	E	10.00 %
Nickel	1	36.42543		8/28/2010 20:55	5	34.93755		8/28/2010 20:59	4.1		10.00 %
Selenium	1	1.81190		8/28/2010 20:55	5	2.58817	J	8/28/2010 20:59	42.8		10.00 %
Silver	1	2.76268		8/28/2010 20:55	5	2.57991		8/28/2010 20:59	6.6		10.00 %
Thallium	1	0.24431		8/28/2010 20:55	5	0.21767	J	8/28/2010 20:59	10.9	E	10.00 %
Zinc	1	381.70470		8/28/2010 20:55	5	373.62230		8/28/2010 20:59	2.1		10.00 %

TestAmerica Pittsburgh | ***Sulfide AVS Distillation Worksheet*** | **Batch No: 0236079**

Method Sulfide AVS	**Matrix** Solid	**Lot Numbers** C0H110578, C0H120575, C0H130459, C0H170539, C0H180480
Start Time 07:40	**Stop Time** 08:40	
Start Temp. 20.2	**Stop Temp.** 21.3	
Analyst Dennis Baker	**Date** 08/24/2010	
Analyst Sign: D Baker		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N) [1]	Comments
L52E01AA B	10.0g	250		NA	GLASS BEADS WC 3168-10
L52E01AC C					" " + 2.5ml 2145-10
L52E01AD L					" " + " " " "
L5FQJ1CH					
L5HKV1CG					
L5HLD1CH					
L5HLF1CH					
L5HLG1CH					
L5JMA1CH			2010-08-26		
L5PA21CF			2010-08-27		
L5QX01AE			2010-08-31		
L5QX11AE			2010-08-31		
L5QX21A2			2010-08-31		
L5QXW1A3	↓	↓	2010-08-31	↓	

DB 8-24-10

DB 8-24-10

DB 8-24-10

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Sulfide Stock, Std 2717-09, Standards Log
Zinc Acetate, Std 1911-10, StandardsLog
Sulfide LCS, WC 4204-10, Standards Log
Sulfide CCV, WC 4205-10, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	25606
Pipet #:	H30608
LCS True Value:	2.9944 umoles
LCS StdsLogID:	WC 4204-10
MS/MSD Conc.:	2.9944 umoles
MS/MSD StdsLogID:	WC 4204-10
Glass or Plastic Beads:	Standard ID

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
All Above	8-24-10	0900	DB	WC	8-24-10	0900	DB	metals
All above	08-25-10	0912	AC	E3	08-27-10	0936	AC	E3

Additional Comments:

Reviewed By: J Johnson 4048 **Date:** 8-24-10

WC-97-0236079

C0H180480

TestAmerica Pittsburgh *Metals Preparation Log*

Batch No. 0239078

v1.0.5 - Last Revised 12/30/2005

Method 6020 Soil	**Matrix** Solid	**Start Time** 0750	**SDG** -
Analyst Caitlyn Haluck	**Date** 8/27/10	**Lot Numbers**	
MS TAPITT-MS-C, TAPITT-MS-ICPMS		C0H180480	
Lab Lot # -met4267-10, met2846-10			
Analyst Sign: CaitlynHaluck			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5Q0C	2.0g	100mL	
L5Q0D			
L5Q0F			
L5Q0K			
L5QX0			
L5QX1			
L5QX2			
L5QX3			
L5QX4			
L5QX6			
L5QX7			
L5QX8			
L5QX9			
L5QXW			
L5QXW S			+1.0mL MS-C, MS-ICP
L5QXW D			
L57DV B	2.0g chips		CH 8/27/10
L57DV C			+1.0mL MS-C, MS-ICP
			CH 8/27/10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents: 5 ml Optima Conc HNO3, 6901 J08N59, JT Baker
10 ml 1:1 Optima HNO3, MET 4111-10, Stds. Log
10ml Opt. Conc. HCl, V078 J02N57, Mallinckrodt
10 ml 30% H2O2, 3408 H47A18, Mallinckrodt

Minimum digestion times have been met (analyst initials): CH

Hot Plate/Block Temp	Correction Factor
#10/94°C	±0.0°C

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
all above	8-27-10	1200		CH	Peep	8/27/10	1310		CH	A3
All Above	8-28-10	1425		WK	A3	8-29-10	1610		WK	A3
All Above	8-30-10	1320		WK	A3	8-30-10	1455		WK	A3

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Environmental Express	**Pipet #:** 03F95602
Final Digestion Vessel:	100504	Corning	**Balance #:** P1856710
Filter Paper:	K11597490	Whatman	Printed on: 27-Aug-10 9:44:57 AM

Reviewed By: [signature] C.Cz **Date:** 8/27/10 **MET-153-0239078**

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST **Units:** ug/L

Chart Number: T00825B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4711-09

Element	WL/ Mass	True Conc	ICV1-1 8/25/2010 12:42 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	250.0	248.96	**99.6**								
Chromium	267.716	1000.0	1010.46	**101.0**								
Copper	324.753	1000.0	1024.72	**102.5**								
Lead	220.353	250.0	252.70	**101.1**								
Nickel	231.604	1000.0	983.44	**98.3**								
Silver	328.068	500.0	501.21	**100.2**								
Zinc	213.856	1000.0	1013.18	**101.3**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4711-09

Element	WL/ Mass	True Conc	ICV1-1 8/26/2010 5:19 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	1000.0	1011.85	**101.2**								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00825B.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4412-10

Element	WL/ Mass	True Conc	ICV6-1 8/25/2010 3:13 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.54	**101.6**								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00825B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: MET5054-09

Element	WL/ Mass	True Conc	CCV1-1 8/25/2010 1:10 PM Found	% Rec	CCV1-2 8/25/2010 2:09 PM Found	% Rec	CCV1-3 8/25/2010 3:23 PM Found	% Rec	CCV1-4 8/25/2010 4:29 PM Found	% Rec	CCV1-5 8/25/2010 5:35 PM Found	% Rec
Cadmium	226.502	500.0	486.12	**97.2**	481.18	**96.2**	491.14	**98.2**	489.53	**97.9**	490.69	**98.1**
Chromium	267.716	2000.0	1974.24	**98.7**	1946.59	**97.3**	1988.05	**99.4**	1987.92	**99.4**	1989.28	**99.5**
Copper	324.753	2000.0	2025.18	**101.3**	1995.92	**99.8**	2030.49	**101.5**	2049.53	**102.5**	2030.26	**101.5**
Lead	220.353	500.0	490.48	**98.1**	484.42	**96.9**	494.00	**98.8**	491.21	**98.2**	490.65	**98.1**
Nickel	231.604	2000.0	1957.73	**97.9**	1937.56	**96.9**	1975.39	**98.8**	1967.71	**98.4**	1967.05	**98.4**
Silver	328.068	1000.0	1013.78	**101.4**	1001.33	**100.1**	1013.54	**101.4**	1014.06	**101.4**	1004.16	**100.4**
Zinc	213.856	2000.0	2019.91	**101.0**	1980.01	**99.0**	2007.62	**100.4**	2001.39	**100.1**	1998.09	**99.9**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00825B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: MET5054-09

Element	WL/ Mass	True Conc	CCV1-6 8/25/2010 6:41 PM Found	% Rec	CCV1-7 8/25/2010 7:47 PM Found	% Rec	CCV1-8 8/25/2010 8:36 PM Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	500.0	497.45	**99.5**	499.68	**99.9**	498.32	**99.7**				
Chromium	267.716	2000.0	2013.64	**100.7**	2019.38	**101.0**	2027.36	**101.4**				
Copper	324.753	2000.0	2040.20	**102.0**	2049.74	**102.5**	2046.33	**102.3**				
Lead	220.353	500.0	499.94	**100.0**	504.49	**100.9**	500.46	**100.1**				
Nickel	231.604	2000.0	1991.90	**99.6**	2000.58	**100.0**	1995.22	**99.8**				
Silver	328.068	1000.0	1007.87	**100.8**	1011.61	**101.2**	1004.90	**100.5**				
Zinc	213.856	2000.0	2015.53	**100.8**	2016.50	**100.8**	2016.82	**100.8**				

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET5054-09

Element	WL/ Mass	True Conc	CCV1-1 8/26/2010 5:48 PM Found	% Rec	CCV1-2 8/26/2010 6:53 PM Found	% Rec	CCV1-3 8/26/2010 7:59 PM Found	% Rec	CCV1-4 8/26/2010 9:05 PM Found	% Rec	CCV1-5 8/26/2010 10:11 PM Found	% Rec
Zinc	213.856	2000.0	2056.89	**102.8**	2025.58	**101.3**	2010.04	**100.5**	1997.35	**99.9**	2019.42	**101.0**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET5054-09

Element	WL/ Mass	True Conc	CCV1-6 8/26/2010 11:16 PM		CCV1-7 8/27/2010 12:22 AM		CCV1-8 8/27/2010 1:28 AM		CCV1-9 8/27/2010 2:12 AM			
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	2000.0	2004.87	**100.2**	2001.03	**100.1**	1993.78	**99.7**	2009.61	**100.5**		

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00825B.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4414-10

Element	WL/ Mass	True Conc	CCV6-1 8/25/2010 3:18 PM		CCV6-2 8/25/2010 3:38 PM		CCV6-3 8/25/2010 4:00 PM		CCV6-4 8/25/2010 4:20 PM		CCV6-5 8/25/2010 4:40 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.80	**96.0**	4.84	**96.8**	4.75	**95.0**	4.82	**96.4**	4.71	**94.2**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: G00825B.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: MET4414-10

Element	WL/ Mass	True Conc	CCV6-6 8/25/2010 4:50 PM Found	% Rec	CCV6-7 8/25/2010 5:01 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.75	**95.0**	4.82	**96.4**						

5.11.0

Form 2A Equivalent

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H180480 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0H240000-022 **Prep Batch #...:** 0236022						
Mercury	ND	0.016	mg/kg	SW846 7471A	08/24/10	L52CP1AA
		Dilution Factor: 0.5				
		Analysis Time..: 08:44	Analyst ID.....: 031043	Instrument ID..: HGH		
MB Lot-Sample #: C0H240000-124 **Prep Batch #...:** 0236124						
Chromium	**0.00071 B**	**0.0024**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L52H41AT**
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Silver	ND	0.0012	umoles/gm	EPA SEM	08/24-08/25/10	L52H41AU
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Cadmium	ND	0.0011	umoles/gm	EPA SEM	08/24-08/25/10	L52H41AA
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Copper	ND	0.0098	umoles/gm	EPA SEM	08/24-08/25/10	L52H41AC
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Nickel	ND	0.017	umoles/gm	EPA SEM	08/24-08/25/10	L52H41AD
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Lead	ND	0.00072	umoles/gm	EPA SEM	08/24-08/25/10	L52H41AE
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
Zinc	**0.0059 B**	**0.038**	**umoles/gm**	**EPA SEM**	**08/24-08/25/10**	**L52H41AF**
		Dilution Factor: 1				
		Analysis Time..: 19:08	Analyst ID.....: 403938	Instrument ID..: TRA		
MB Lot-Sample #: C0H270000-078 **Prep Batch #...:** 0239078						
Antimony	ND	0.10	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AK
		Dilution Factor: 0.5				
		Analysis Time..: 20:42	Analyst ID.....: 400149	Instrument ID..: ICP		
Arsenic	ND	0.050	mg/kg	SW846 6020	08/27-08/28/10	L57DV1AC
		Dilution Factor: 0.5				
		Analysis Time..: 20:42	Analyst ID.....: 400149	Instrument ID..: ICP		

(Continued on next page)

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00825B.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET4850-09

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 8/25/2010 12:59 PM Found	Found	Found	Found	Found
Cadmium	226.502	5		-2				
Chromium	267.716	5		-1				
Copper	324.753	25		0				
Lead	220.353	3		3				
Nickel	231.604	40		1				
Silver	328.068	5		0				
Zinc	213.856	20		6				

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET4850-09

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 8/26/2010 5:37 PM Found	Found	Found	Found	Found
Zinc	213.856	20		-4				

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 4 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00825B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4851-09

Element	WL/ Mass	True Conc	ICSAB 8/25/2010 1:04 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	1000	924.7	**92.5**								
Chromium	267.716	500	483.1	**96.6**								
Copper	324.753	500	532.5	**106.5**								
Lead	220.353	1000	949.2	**94.9**								
Nickel	231.604	1000	926.4	**92.6**								
Silver	328.068	1000	1065.6	**106.6**								
Zinc	213.856	1000	1012.3	**101.2**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4851-09

Element	WL/ Mass	True Conc	ICSAB 8/26/2010 5:42 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	1000	1010.3	**101.0**								

5.11.0

NC Percent recovery was not calculated
U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00825B.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4939-09

Element	WL/ Mass	True Conc	CRA/RLV 8/25/2010 12:53 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	2.5 5.0	4.87	**97.4**								
Chromium	267.716	2.5 5.0	4.89	**97.8**								
Copper	324.753	12.5 25.0	24.71	**98.8**								
Lead	220.353	1.5 3.0	3.48	**116.0**								
Nickel	231.604	20 40.0	40.75	**101.9**								
Silver	328.068	2.5 5.0	4.92	**98.4**								
Zinc	213.856	10 20.0	22.60	**113.0**								

CRDL CRDL @ 25% Solids

Pb 0.00018 0.000721

Zn 0.00378 0.01512

5.11.0

Form 2B Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00826C.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4939-09

Element	WL/ Mass	True Conc	CRA/RLV 8/26/2010 5:31 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	20.0	10.65	53.3								

NO ACTION

1 SAMPLE ANALYZED
ON 8/26/10 @ 0201 (AM)

5.11.0 *Form 2B Equivalent*

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00825B.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4413-10

Element	WL/ Mass	True Conc	CRA/RLV 8/25/2010 3:16 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.21	**105.5**								

5.11.0

Form 2B Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Cadmium	226.502	5.0	0.16	10/18/2006
Chromium	267.716	5.0	0.44	10/18/2006
Copper	324.753	25.0	2.2	10/18/2006
Lead	220.353	3.0	2.0	10/18/2006
Nickel	231.604	40.0	1.2	10/18/2006
Silver	328.068	5.0	0.58	10/18/2006
Zinc	213.856	20.0	7.4	10/18/2006

Test America Pittsburgh
- 10 -
METHOD DETECTION LIMITS

Client: TETRA TECH

SDG No.: C0H180480

	Analyte	Mass	MDL ug/L	CRQL ug/L
ICPMS		**MDL Date:**	6/6/2009	
	Antimony	121	0.026	2
	Arsenic	75	0.18	1
	Barium	137	0.1	10
	Beryllium	9	0.075	1
	Cadmium	111	0.070	1
	Chromium	52	0.06	2
	Copper	65	0.33	2
	Lead	208	0.038	1
	Nickel	60	0.1	1
	Selenium	82	0.50	5
	Silver	107	0.04	1
	Thallium	205	0.020	1
	Zinc	66	0.65	5

GENERAL CHEMISTRY SUMMARY

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H180480
Matrix:	SOLID	**Date/Time Received:**	8/11/2010 10:15:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0H240000079B	079 MB	L52E01AA	ND	umoles/g	0.50	8/24/2010 - 8/24/2010 09:05	0236079	

Tetra Tech Middle River, MD

Ratio for SEM/AVS

Lab Name:	TESTAMERICA PITTSBURGH	**Lot Number:**	C0H180480
Client Name:	Tetra Tech NUS, Inc	**Date Received:**	8/18/10
Matrix:	SOLID		

Client Sample ID	Sample Number	Ratio
SD-90-SS	001	0.2013
SD-90-01	002	0.2717
SD-90-02	003	0.3305
SD-90-04	004	NA

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0H180480

AMBIENT MICRO-MIDI ACID PURGE

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1A3	22.6	umoles/g —	0.57	1.8	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-01	C0H180480 002	L5QX01AE	19.0	umoles/g —	0.41	1.3	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-02	C0H180480 003	L5QX11AE	18.7	umoles/g —	0.37	1.2	1	8/24/2010 - 8/24/2010 09:05	0236079
SD-90-04	C0H180480 004	L5QX21A2	ND	umoles/g —	0.27	0.88	1	8/24/2010 - 8/24/2010 09:05	0236079

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID
Method: SM20 2540G
Lot Number: C0H180480

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1AA	27.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-01	C0H180480 002	L5QX01AF	37.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-02	C0H180480 003	L5QX11AF	41.6	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-90-04	C0H180480 004	L5QX21AA	56.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-91-SS	C0H180480 005	L5QX31AA	70.3	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-91-01	C0H180480 006	L5QX41AA	75.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-SS	C0H180480 007	L5QX61AA	35.8	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-01	C0H180480 008	L5QX71AA	40.4	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-02	C0H180480 009	L5QX81AA	45.8	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-94-04	C0H180480 010	L5QX91AA	59.7	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-SS	C0H180480 011	L5Q0C1AA	23.3	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-01	C0H180480 012	L5Q0D1AA	27.2	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-02	C0H180480 013	L5Q0F1AA	39.1	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265
SD-97-04	C0H180480 014	L5Q0K1AA	40.9	%	0.0	1.0	1	8/19/2010 - 8/20/2010 06:00	0231265

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0H180480
Matrix:	SOLID		

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-90-SS	C0H180480 001	L5QXW1AC	28000	mg/kg	1980	7270	1.98	8/19/2010 - 8/21/2010 02:18	0231116
SD-90-01	C0H180480 002	L5QX01AG	35900	mg/kg	1420	5200	1.96	8/19/2010 - 8/21/2010 03:01	0231116
SD-90-02	C0H180480 003	L5QX11AG	35900	mg/kg	1280	4710	1.96	8/19/2010 - 8/21/2010 03:15	0231116

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H180480
Matrix:	SOLID	**Date/Time Received:**	8/11/2010 10:15:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0H240000079B	079 MB	L52E01AA	ND	umoles/g	0.50	8/24/2010 - 8/24/2010 09:05	0236079	

Tetra Tech Middle River, MD

Percent Solids

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 2540G
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H180480
Matrix:	SOLID	**Date/Time Received:**	8/17/2010 9:30:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
INTRA-LAB QC	007 DUP	L5N141CE	39.6	%	1.0	8/19/2010 - 8/20/2010 06:00	0231265	1.2 / 20

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H180480
Matrix:	SOLID	**Date/Time Received:**	8/17/2010 10:10:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
INTRA-LAB QC	006 DUP	L5PC81EH	104000	mg/kg	12900	8/19/2010 - 8/21/2010 00:51	0231116	0.20 / 20
BLK - C0H190000116B	116 MB	L5R351AA	ND	mg/kg	2000	8/19/2010 - 8/20/2010 22:11	0231116	

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0H240000
Matrix:	SOLID	**Date/Time Received:**	8/11/2010 10:15:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L52E01AC	100	85 - 115	8/24/2010 - 8/24/2010 09:05	0236079	1.3 / 20
DUPLICATE CHECK	LCSD	L52E01AD	98	85 - 115	8/24/2010 - 8/24/2010 09:05	0236079	1.3 / 20

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0H170543
Matrix:	SOLID	**Date/Time Received:**	8/17/2010 10:10:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
LAB MS/MSD	MS	L5PC81AX	105	75 - 125	8/19/2010 - 8/21/2010 01:05	0231116	1.6 / 20
LAB MS/MSD	MSD	L5PC81A0	98	75 - 125	8/19/2010 - 8/21/2010 01:20	0231116	1.6 / 20
DUPLICATE CHECK	LCSD	L5R351AD	96	75 - 125	8/19/2010 - 8/20/2010 22:40	0231116	5.2 / 20
CHECK SAMPLE	LCS	L5R351AC	91	75 - 125	8/19/2010 - 8/20/2010 22:26	0231116	5.2 / 20

Tetra Tech Middle River, MD

Ratio for SEM/AVS

Lab Name:	TESTAMERICA PITTSBURGH	**Lot Number:**	C0H180480
Client Name:	Tetra Tech NUS, Inc	**Date Received:**	8/18/10
Matrix:	SOLID		

Client Sample ID	Sample Number	Ratio
SD-90-SS	001	0.2013
SD-90-01	002	0.2717
SD-90-02	003	0.3305
SD-90-04	004	NA

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **OCTOBER 1, 2010**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- PAH/PCBs**
MIDDLE RIVER CENTER
FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) - C0H190588

SAMPLES: 40/Sediment/PAH/PCB

SD-101-01	SD-101-02	SD-101-04	SD-101-SS	SD-102-01
SD-102-02	SD-102-04	SD-102-SS	SD-103-01	SD-103-02
SD-103-SS	SD-104-01	SD-104-02	SD-104-04	SD-104-SS
SD-105-01	SD-105-02	SD-105-04	SD-105-SS	SD-86-01
SD-86-02	SD-86-04	SD-86-SS	SD-87-01	SD-87-02
SD-87-04	SD-87-SS	SD-92-01	SD-92-SS	SD-93-01
SD-93-02	SD-93-04	SD-93-SS	SD-95-01	SD-95-02
SD-95-04	SD-95-SS	SD-DUP1-01	SD-DUP2-04	SD-DUP3-SS

Overview

The sample set for Middle River Center, SDG C0H190588, consists of forty (40) environmental sediment samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCBs). There are three field duplicate pairs within this SDG: SD-95-01/SD-DUP1-01, SD-102-04/SD-DUP2-04 and SD-104-SS/SD-DUP3-SS.

The samples were collected on August 17 and 18, 2010 and analyzed by Test America. PAH analyses were conducted in accordance with SW-846 Method 8270C and PCBs Method 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial and continuing calibration results, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, matrix spike/ matrix spike duplicate recoveries, laboratory control standard recoveries, detection limits, compound quantitation, field duplicate precision and compound identification. Areas of concern with respect to data quality are listed below.

Major- None.

Minor

- The percent solids was less than 30% in the following samples: SD-101-SS, SD-102-SS, SD-105-SS and SD-95-SS. Positive and nondetected results were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair SD-102-04 and SD-DUP2-04 for several analytes. The relative percent difference (RPD) was greater than the 50% quality control limit for acenaphthylene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene and phenanthrene. The difference in absolute values was greater than 2X the reporting limit for indeno(1,2,3-cd)pyrene. The positive result and nondetected indeno(1,2,3-cd)pyrene results were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair SD-104-SS and SD-DUP3-SS for several anlaytes. The RPD was greater than the 50% quality control limit for acenaphthene, benzo(g,h,i)perylene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-cd)pyrene and naphthalene. The difference in absolute values was greater than 2X the reporting limit for benzo(g,h,i)perylene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene. The positive results for the aforementioned analytes were qualified as estimated (J) in the field duplicate pair.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: The percent solids was less than 30% in several samples. Field duplicate imprecision was noted in field duplicate pairs: SD-102-04/SD-DUP2-04 and SD-104-SS/SD-DUP3-SS for several PAHs.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

PROJ_NO: 02903	NSAMPLE	SD-101-01			SD-101-02			SD-101-04			SD-101-SS		
SDG: C0H190588	LAB_ID	C0H190588018			C0H190588019			C0H190588020			C0H190588017		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			35.0			58.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		19	J	P	29	J	P	2.2	J	P	18	J	PY
ACENAPHTHYLENE		31	J	P	50			2.4	J	P	53	J	PY
ANTHRACENE		57	J	P	110			3.9	J	P	87	J	PY
BENZO(A)ANTHRACENE		170			320			7.2	J	P	220	J	Y
BENZO(A)PYRENE		180			340			5	J	P	200	J	Y
BENZO(B)FLUORANTHENE		310			580			8.5	J	P	420	J	Y
BENZO(G,H,I)PERYLENE		230			310			22			400	J	Y
BENZO(K)FLUORANTHENE		20	U		9.7	U		2.3	U		28	UJ	Y
CHRYSENE		190			350			7.3	J	P	220	J	Y
DIBENZO(A,H)ANTHRACENE		130			120			1.3	U		15	UJ	Y
FLUORANTHENE		260			520			12			340	J	Y
FLUORENE		17	J	P	58			3.2	J	P	37	J	PY
INDENO(1,2,3-CD)PYRENE		220			300			26			410	J	Y
NAPHTHALENE		44	J	P	120			4.7	J	P	58	J	PY
PHENANTHRENE		120			300			10	J	P	150	J	Y
PYRENE		310			610			14			350	J	Y

PROJ_NO: 02903	NSAMPLE	SD-102-01			SD-102-02			SD-102-04			SD-102-SS		
SDG: C0H190588	LAB_ID	C0H190588022			C0H190588023			C0H190588024			C0H190588021		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			32.0			37.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		10	U		25	J	P	4.3	U		11	UJ	Y
ACENAPHTHYLENE		36	J	P	56	J	P	7.9	J	P	14	UJ	Y
ANTHRACENE		44	J	P	97	J	P	9	J	P	29	J	PY
BENZO(A)ANTHRACENE		150			280			18	J	P	85	J	PY
BENZO(A)PYRENE		150			320			21	J	P	99	J	PY
BENZO(B)FLUORANTHENE		350			580			46			200	J	Y
BENZO(G,H,I)PERYLENE		310			410			84			240	J	Y
BENZO(K)FLUORANTHENE		22	U		21	U		9	U		24	UJ	Y
CHRYSENE		180			370			32	J	P	120	J	Y
DIBENZO(A,H)ANTHRACENE		12	U		12	U		5	U		13	UJ	Y
FLUORANTHENE		310			600			40	J	P	170	J	Y
FLUORENE		34	J	P	69	J	P	8.4	J	P	16	UJ	Y
INDENO(1,2,3-CD)PYRENE		320			400			100	J	G	290	J	Y
NAPHTHALENE		53	J	P	130			21	J	P	10	UJ	Y
PHENANTHRENE		130			280			38	J	P	66	J	PY
PYRENE		330			640			41	J	P	170	J	Y

PROJ_NO: 02903	NSAMPLE	SD-103-01			SD-103-02			SD-103-SS			SD-104-01		
SDG: C0H190588	LAB_ID	C0H190588026			C0H190588027			C0H190588025			C0H190588029		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	60.0			82.0			55.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		1.1	U		0.39	U		2.9	U		4.2	U	
ACENAPHTHYLENE		1.3	U		0.46	U		3.5	U		5	U	
ANTHRACENE		1.1	U		0.4	U		5.6	J	P	4.3	U	
BENZO(A)ANTHRACENE		1.4	U		0.51	U		25	J	P	5.5	U	
BENZO(A)PYRENE		1.1	U		0.4	U		24	J	P	4.4	U	
BENZO(B)FLUORANTHENE		1.7	U		0.64	U		41			6.9	U	
BENZO(G,H,I)PERYLENE		1.1	U		0.4	U		66			4.4	U	
BENZO(K)FLUORANTHENE		2.2	U		0.82	U		16	J	P	8.9	U	
CHRYSENE		1.3	U		0.48	U		26	J	P	5.2	U	
DIBENZO(A,H)ANTHRACENE		1.2	U		0.45	U		3.4	U		4.9	U	
FLUORANTHENE		1.8	J	P	0.43	U		37			4.8	J	P
FLUORENE		1.5	U		0.53	U		4	U		5.8	U	
INDENO(1,2,3-CD)PYRENE		1.1	U		0.42	U		74			4.5	U	
NAPHTHALENE		0.96	U		0.35	U		2.6	U		3.8	U	
PHENANTHRENE		2.8	J	P	1.2	J	P	9.7	J	P	7	U	
PYRENE		1.1	U		0.41	U		32			4.7	J	P

PROJ_NO: 02903	NSAMPLE	SD-104-02			SD-104-04			SD-104-SS			SD-105-01		
SDG: C0H190588	LAB_ID	C0H190588030			C0H190588031			C0H190588028			C0H190588033		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.0			44.0			35.0			30.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		1.8	U		1.5	U		1.8	U		23	J	P
ACENAPHTHYLENE		2.1	U		1.7	U		15	J	P	13	U	
ANTHRACENE		1.8	U		1.5	U		26			61	J	P
BENZO(A)ANTHRACENE		2.3	U		1.9	U		60			200		
BENZO(A)PYRENE		1.8	U		1.5	U		56			240		
BENZO(B)FLUORANTHENE		2.9	U		2.4	U		130			480		
BENZO(G,H,I)PERYLENE		1.8	U		1.5	U		71	J	G	360		
BENZO(K)FLUORANTHENE		3.7	U		3.1	U		3.8	U		22	U	
CHRYSENE		2.2	U		1.8	U		71			240		
DIBENZO(A,H)ANTHRACENE		2	U		1.7	U		41	J	G	220		
FLUORANTHENE		2	U		1.6	U		130			290		
FLUORENE		2.4	U		2	U		21			24	J	P
INDENO(1,2,3-CD)PYRENE		1.9	U		1.6	U		72	J	G	370		
NAPHTHALENE		1.6	U		1.3	U		42			58	J	P
PHENANTHRENE		4.3	J	P	2.4	J	P	79			140		
PYRENE		1.9	U		1.5	U		110			440		

PROJ_NO: 02903	NSAMPLE	SD-105-02			SD-105-04			SD-105-SS			SD-86-01		
SDG: C0H190588	LAB_ID	C0H190588034			C0H190588035			C0H190588032			C0H190588038		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.0			35.0			29.0			55.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		20	J	P	16	J	P	16	J	PY	350		
ACENAPHTHYLENE		32	J	P	26			21	J	PY	150		
ANTHRACENE		69	J	P	58			51	J	Y	620		
BENZO(A)ANTHRACENE		170			160			150	J	Y	2400		
BENZO(A)PYRENE		240			160			170	J	Y	2200		
BENZO(B)FLUORANTHENE		420			290			350	J	Y	3400		
BENZO(G,H,I)PERYLENE		380			170			220	J	Y	2000		
BENZO(K)FLUORANTHENE		20	U		3.9	U		9.2	UJ	Y	30	U	
CHRYSENE		250			180			200	J	Y	2300		
DIBENZO(A,H)ANTHRACENE		200			70			100	J	Y	700		
FLUORANTHENE		330			270			230	J	Y	3900		
FLUORENE		29	J	P	30			27	J	PY	190		
INDENO(1,2,3-CD)PYRENE		360			150			220	J	Y	1700		
NAPHTHALENE		78	J	P	83			42	J	PY	100	J	P
PHENANTHRENE		190			190			120	J	Y	2300		
PYRENE		470			370			350	J	Y	4000		

PROJ_NO: 02903	NSAMPLE	SD-86-02			SD-86-04			SD-86-SS			SD-87-01		
SDG: C0H190588	LAB_ID	C0H190588039			C0H190588040			C0H190588037			C0H190588014		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	48.0			49.0			41.0			54.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		2100			8.2	J	P	84	J	P	410		
ACENAPHTHYLENE		190			3.9	U		120	J	P	140	J	P
ANTHRACENE		2800			4.8	J	P	350			660		
BENZO(A)ANTHRACENE		7100			24	J	P	1600			2300		
BENZO(A)PYRENE		6100			25	J	P	1500			2000		
BENZO(B)FLUORANTHENE		9600			41			2600			3200		
BENZO(G,H,I)PERYLENE		3900			71			1700			1600		
BENZO(K)FLUORANTHENE		35	U		6.9	U		41	U		31	U	
CHRYSENE		7200			26	J	P	1700			2000		
DIBENZO(A,H)ANTHRACENE		1400			3.8	U		630			540		
FLUORANTHENE		15000			33	J	P	2700			3800		
FLUORENE		1400			5.6	J	P	100	J	P	240		
INDENO(1,2,3-CD)PYRENE		3600			84			1500			1400		
NAPHTHALENE		300			2.9	U		52	J	P	89	J	P
PHENANTHRENE		9600			21	J	P	1500			2300		
PYRENE		12000			48			3300			3500		

PROJ_NO: 02903	NSAMPLE	SD-87-02			SD-87-04			SD-87-SS			SD-92-01		
SDG: C0H190588	LAB_ID	C0H190588015			C0H190588016			C0H190588013			C0H190588002		
FRACTION: PAH	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	48.0			40.0			37.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		230			16	J	P	85	J	P	0.95	U	
ACENAPHTHYLENE		320			15	J	P	120	J	P	1.1	U	
ANTHRACENE		740			37			300			0.97	U	
BENZO(A)ANTHRACENE		2500			160			1200			1.2	U	
BENZO(A)PYRENE		2900			160			1300			0.99	U	
BENZO(B)FLUORANTHENE		4600			250			2100			1.6	U	
BENZO(G,H,I)PERYLENE		2300			130			1400			0.99	U	
BENZO(K)FLUORANTHENE		35	U		3.3	U		45	U		2	U	
CHRYSENE		3100			160			1400			1.2	U	
DIBENZO(A,H)ANTHRACENE		860			54			630			1.1	U	
FLUORANTHENE		4600			240			1700			1.1	U	
FLUORENE		180			13	J	P	67	J	P	1.3	U	
INDENO(1,2,3-CD)PYRENE		2100			120			1300			1	U	
NAPHTHALENE		130	J	P	13	J	P	62	J	P	0.85	U	
PHENANTHRENE		1500			120			830			2.4	J	P
PYRENE		4900			250			2000			1	U	

PROJ_NO: 02903	NSAMPLE	SD-92-SS			SD-93-01			SD-93-02			SD-93-04		
SDG: C0H190588	LAB_ID	C0H190588001			C0H190588004			C0H190588005			C0H190588006		
FRACTION: PAH	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	53.0			67.0			52.0			60.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		1.2	U		12	J	P	22	J	P	8.2	J	P
ACENAPHTHYLENE		1.4	U		18	J	P	26			16	J	P
ANTHRACENE		2.6	J	P	35			66			25		
BENZO(A)ANTHRACENE		8.7	J	P	180			250			73		
BENZO(A)PYRENE		9.4	J	P	160			240			77		
BENZO(B)FLUORANTHENE		14			290			420			140		
BENZO(G,H,I)PERYLENE		29			150			220			99		
BENZO(K)FLUORANTHENE		2.5	U		4	U		5.2	U		4.5	U	
CHRYSENE		9.1	J	P	160			260			100		
DIBENZO(A,H)ANTHRACENE		1.4	U		75			92			52		
FLUORANTHENE		16			300			420			140		
FLUORENE		2.2	J	P	13	J	P	23	J	P	7.6	J	P
INDENO(1,2,3-CD)PYRENE		33			140			210			91		
NAPHTHALENE		2.8	J	P	10	J	P	23	J	P	14	J	P
PHENANTHRENE		7.2	J	P	150			190			75		
PYRENE		18			300			430			170		

PROJ_NO: 02903	NSAMPLE	SD-93-SS			SD-95-01			SD-95-02			SD-95-04		
SDG: C0H190588	LAB_ID	C0H190588003			C0H190588008			C0H190588009			C0H190588010		
FRACTION: PAH	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	70.0			32.0			34.0			47.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		3.9	J	P	24	J	P	34	J	P	16	J	P
ACENAPHTHYLENE		8.7	J	P	50			51			26	J	P
ANTHRACENE		15	J	P	89			110			36		
BENZO(A)ANTHRACENE		55			330			400			92		
BENZO(A)PYRENE		60			350			450			95		
BENZO(B)FLUORANTHENE		130			580			750			170		
BENZO(G,H,I)PERYLENE		78			360			390			120		
BENZO(K)FLUORANTHENE		3.8	U		8.4	U		8	U		7.1	U	
CHRYSENE		75			360			450			120		
DIBENZO(A,H)ANTHRACENE		49			140			150			71		
FLUORANTHENE		110			470			670			170		
FLUORENE		5.3	J	P	34	J	P	48			40		
INDENO(1,2,3-CD)PYRENE		80			310			360			130		
NAPHTHALENE		5.1	J	P	50			68			30	J	P
PHENANTHRENE		36			220			320			120		
PYRENE		100			630			800			190		

PROJ_NO: 02903	NSAMPLE	SD-95-SS			SD-DUP1-01			SD-DUP2-04			SD-DUP3-SS		
SDG: C0H190588	LAB_ID	C0H190588007			C0H190588011			C0H190588012			C0H190588036		
FRACTION: PAH	SAMP_DATE	8/17/2010			8/17/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	27.0			32.0			37.0			34.0		
	DUP_OF				SD-95-01			SD-102-04			SD-104-SS		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		26	J	PY	30	J	P	4.3	U		13	J	P
ACENAPHTHYLENE		33	J	PY	62			5.1	U		16	J	P
ANTHRACENE		73	J	Y	100			10	J	P	37	J	P
BENZO(A)ANTHRACENE		250	J	Y	320			24	J	P	78		
BENZO(A)PYRENE		290	J	Y	360			14	J	P	82		
BENZO(B)FLUORANTHENE		560	J	Y	640			17	J	P	110		
BENZO(G,H,I)PERYLENE		340	J	Y	390			4.5	U		150	J	G
BENZO(K)FLUORANTHENE		10	UJ	Y	8.4	U		16	J	P	10	U	
CHRYSENE		310	J	Y	370			11	J	P	100		
DIBENZO(A,H)ANTHRACENE		150	J	Y	150			5	U		100	J	G
FLUORANTHENE		470	J	Y	480			27	J	P	150		
FLUORENE		29	J	PY	33	J	P	5.9	U		36	J	P
INDENO(1,2,3-CD)PYRENE		310	J	Y	330			4.6	UJ	G	160	J	G
NAPHTHALENE		48	J	PY	50			12	J	P	71		
PHENANTHRENE		180	J	Y	210			22	J	P	130		
PYRENE		520	J	Y	610			27	J	P	170		

PROJ_NO: 02903	NSAMPLE	SD-101-01			SD-101-02			SD-101-04			SD-101-SS		
SDG: C0H190588	LAB_ID	C0H190588018			C0H190588019			C0H190588020			C0H190588017		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			35.0			58.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.6	U		3.5	U		2.2	U		5.1	UJ	Y
AROCLOR-1221		4.6	U		4.5	U		2.8	U		6.5	UJ	Y
AROCLOR-1232		4.2	U		4	U		2.5	U		5.9	UJ	Y
AROCLOR-1242		4	U		3.8	U		2.4	U		5.6	UJ	Y
AROCLOR-1248		2.3	U		2.2	U		1.4	U		3.2	UJ	Y
AROCLOR-1254		3.5	U		3.4	U		2.1	U		4.9	UJ	Y
AROCLOR-1260		240			62			2.1	U		190	J	Y

PROJ_NO: 02903	NSAMPLE	SD-102-01			SD-102-02			SD-102-04			SD-102-SS		
SDG: C0H190588	LAB_ID	C0H190588022			C0H190588023			C0H190588024			C0H190588021		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			32.0			37.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		4.1	U		3.8	U		3.3	U		4.4	UJ	Y
AROCLOR-1221		5.2	U		4.9	U		4.3	U		5.7	UJ	Y
AROCLOR-1232		4.7	U		4.4	U		3.8	U		5.1	UJ	Y
AROCLOR-1242		4.4	U		4.2	U		3.6	U		4.8	UJ	Y
AROCLOR-1248		2.6	U		2.4	U		2.1	U		2.8	UJ	Y
AROCLOR-1254		3.9	U		3.6	U		3.2	U		4.2	UJ	Y
AROCLOR-1260		250			160			3.2	U		200	J	Y

PROJ_NO: 02903	NSAMPLE	SD-103-01			SD-103-02			SD-103-SS			SD-104-01		
SDG: C0H190588	LAB_ID	C0H190588026			C0H190588027			C0H190588025			C0H190588029		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	60.0			82.0			55.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.1	U		1.5	U		2.3	U		3.3	U	
AROCLOR-1221		2.6	U		1.9	U		2.9	U		4.2	U	
AROCLOR-1232		2.4	U		1.7	U		2.6	U		3.8	U	
AROCLOR-1242		2.3	U		1.6	U		2.5	U		3.6	U	
AROCLOR-1248		1.3	U		0.96	U		1.4	U		2.1	U	
AROCLOR-1254		2	U		1.4	U		2.2	U		3.1	U	
AROCLOR-1260		2	U		1.4	U		2.2	U		3.1	U	

PROJ_NO: 02903	NSAMPLE	SD-104-02			SD-104-04			SD-104-SS			SD-105-01		
SDG: C0H190588	LAB_ID	C0H190588030			C0H190588031			C0H190588028			C0H190588033		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	36.0			44.0			35.0			30.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.3	U		2.8	U		3.5	U		4.1	U	
AROCLOR-1221		4.3	U		3.6	U		4.5	U		5.3	U	
AROCLOR-1232		3.8	U		3.3	U		4.1	U		4.8	U	
AROCLOR-1242		3.6	U		3.1	U		3.9	U		4.5	U	
AROCLOR-1248		2.1	U		1.8	U		2.2	U		2.6	U	
AROCLOR-1254		3.2	U		2.7	U		3.4	U		3.9	U	
AROCLOR-1260		3.2	U		2.7	U		30			230		

PROJ_NO: 02903	NSAMPLE	SD-105-02			SD-105-04			SD-105-SS			SD-86-01		
SDG: C0H190588	LAB_ID	C0H190588034			C0H190588035			C0H190588032			C0H190588038		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	33.0			35.0			29.0			55.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.8	U		3.6	U		4.2	UJ	Y	2.3	U	
AROCLOR-1221		4.9	U		4.6	U		5.4	UJ	Y	2.9	U	
AROCLOR-1232		4.4	U		4.1	U		4.8	UJ	Y	2.6	U	
AROCLOR-1242		4.1	U		3.9	U		4.6	UJ	Y	2.5	U	
AROCLOR-1248		2.4	U		2.3	U		2.7	UJ	Y	2300		
AROCLOR-1254		3.6	U		3.4	U		4	UJ	Y	2.2	U	
AROCLOR-1260		140			120			170	J	Y	2300	J	U

PROJ_NO: 02903	NSAMPLE	SD-86-02			SD-86-04			SD-86-SS			SD-87-01		
SDG: C0H190588	LAB_ID	C0H190588039			C0H190588040			C0H190588037			C0H190588014		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	48.0			49.0			41.0			54.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.6	U		2.5	U		3	U		2.3	U	
AROCLOR-1221		3.3	U		3.2	U		3.9	U		2.9	U	
AROCLOR-1232		3	U		2.9	U		3.5	U		2.6	U	
AROCLOR-1242		2.8	U		2.8	U		3.3	U		2.5	U	
AROCLOR-1248		430	J	U	1.6	U		1.9	U		550		
AROCLOR-1254		2.5	U		2.4	U		2.9	U		2.2	U	
AROCLOR-1260		250			2.4	U		290	J	U	800	J	U

PROJ_NO: 02903	NSAMPLE	SD-87-02			SD-87-04			SD-87-SS			SD-92-01		
SDG: C0H190588	LAB_ID	C0H190588015			C0H190588016			C0H190588013			C0H190588002		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	48.0			40.0			37.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.6	U		3.1	U		3.3	U		1.9	U	
AROCLOR-1221		3.3	U		3.9	U		4.2	U		2.4	U	
AROCLOR-1232		3	U		3.5	U		3.8	U		2.1	U	
AROCLOR-1242		2.8	U		3.4	U		3.6	U		2	U	
AROCLOR-1248		1.6	U		2	U		2.1	U		1.2	U	
AROCLOR-1254		2.5	U		2.9	U		3.1	U		1.8	U	
AROCLOR-1260		770	J	U	2.9	U		380			1.8	U	

PROJ_NO: 02903	NSAMPLE	SD-92-SS			SD-93-01			SD-93-02			SD-93-04		
SDG: C0H190588	LAB_ID	C0H190588001			C0H190588004			C0H190588005			C0H190588006		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	53.0			67.0			52.0			60.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.3	U		1.8	U		2.3	U		2.1	U	
AROCLOR-1221		3	U		2.4	U		3	U		2.6	U	
AROCLOR-1232		2.7	U		2.1	U		2.7	U		2.4	U	
AROCLOR-1242		2.5	U		2	U		2.5	U		2.2	U	
AROCLOR-1248		1.5	U		1.2	U		1.5	U		1.3	U	
AROCLOR-1254		2.2	U		1.8	U		2.2	U		2	U	
AROCLOR-1260		2.2	U		280			150			2	U	

PROJ_NO: 02903	NSAMPLE	SD-93-SS			SD-95-01			SD-95-02			SD-95-04		
SDG: C0H190588	LAB_ID	C0H190588003			C0H190588008			C0H190588009			C0H190588010		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	70.0			32.0			34.0			47.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.8	U		3.9	U		3.7	U		2.6	U	
AROCLOR-1221		2.3	U		5	U		4.7	U		3.4	U	
AROCLOR-1232		2	U		4.5	U		4.3	U		3	U	
AROCLOR-1242		1.9	U		4.2	U		4.1	U		2.9	U	
AROCLOR-1248		1.1	U		2.5	U		2.4	U		1.7	U	
AROCLOR-1254		1.7	U		3.7	U		3.5	U		2.5	U	
AROCLOR-1260		73			610			290			12	J	P

PROJ_NO: 02903	NSAMPLE	SD-95-SS			SD-DUP1-01			SD-DUP2-04			SD-DUP3-SS		
SDG: C0H190588	LAB_ID	C0H190588007			C0H190588011			C0H190588012			C0H190588036		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/17/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	27.0			32.0			37.0			34.0		
	DUP_OF				SD-95-01			SD-102-04			SD-104-SS		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		4.7	UJ	Y	3.9	U		3.4	U		3.7	U	
AROCLOR-1221		6	UJ	Y	5	U		4.3	U		4.7	U	
AROCLOR-1232		5.4	UJ	Y	4.5	U		3.9	U		4.2	U	
AROCLOR-1242		5.1	UJ	Y	4.2	U		3.7	U		4	U	
AROCLOR-1248		3	UJ	Y	2.5	U		2.1	U		2.3	U	
AROCLOR-1254		4.5	UJ	Y	3.7	U		3.2	U		3.5	U	
AROCLOR-1260		720	J	Y	380	J	U	3.2	U		20	J	P

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-018	Work Order #...:	L5VR31AV	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	23:55		
Dilution Factor:	4.98	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	66	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	44 J	97	ug/kg	8.4
Acenaphthylene	31 J	97	ug/kg	11
Acenaphthene	19 J	97	ug/kg	9.3
Fluorene	17 J	97	ug/kg	13
Phenanthrene	120	97	ug/kg	15
Anthracene	57 J	97	ug/kg	9.5
Fluoranthene	260	97	ug/kg	10
Pyrene	310	97	ug/kg	9.8
Benzo(a)anthracene	170	97	ug/kg	12
Chrysene	190	97	ug/kg	12
Benzo(b)fluoranthene	310	97	ug/kg	15
Benzo(k)fluoranthene	ND	97	ug/kg	20
Benzo(a)pyrene	180	97	ug/kg	9.7
Indeno(1,2,3-cd)pyrene	220	97	ug/kg	10
Dibenzo(a,h)anthracene	130	97	ug/kg	11
Benzo(ghi)perylene	230	97	ug/kg	9.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	59	(28 - 107)
Phenol-d5	60	(30 - 112)
2,4,6-Tribromophenol	74	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-019	Work Order #...:	L5VR41AV	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0235285	Analysis Time..:	00:17		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	65	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	120	48	ug/kg	4.2
Acenaphthylene	50	48	ug/kg	5.5
Acenaphthene	29 J	48	ug/kg	4.6
Fluorene	58	48	ug/kg	6.4
Phenanthrene	300	48	ug/kg	7.7
Anthracene	110	48	ug/kg	4.7
Fluoranthene	520	48	ug/kg	5.2
Pyrene	610	48	ug/kg	4.9
Benzo(a)anthracene	320	48	ug/kg	6.0
Chrysene	350	48	ug/kg	5.7
Benzo(b)fluoranthene	580	48	ug/kg	7.6
Benzo(k)fluoranthene	ND	48	ug/kg	9.7
Benzo(a)pyrene	340	48	ug/kg	4.8
Indeno(1,2,3-cd)pyrene	300	48	ug/kg	5.0
Dibenzo(a,h)anthracene	120	48	ug/kg	5.4
Benzo(ghi)perylene	310	48	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	83	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	77	(30 - 112)
2,4,6-Tribromophenol	87	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-020	Work Order #...:	L5VR61A1	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0235285	Analysis Time..:	13:17		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	42	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	4.7 J	12	ug/kg	1.0
Acenaphthylene	2.4 J	12	ug/kg	1.3
Acenaphthene	2.2 J	12	ug/kg	1.1
Fluorene	3.2 J	12	ug/kg	1.5
Phenanthrene	10 J	12	ug/kg	1.8
Anthracene	3.9 J	12	ug/kg	1.1
Fluoranthene	12	12	ug/kg	1.2
Pyrene	14	12	ug/kg	1.2
Benzo(a)anthracene	7.2 J	12	ug/kg	1.5
Chrysene	7.3 J	12	ug/kg	1.4
Benzo(b)fluoranthene	8.5 J	12	ug/kg	1.8
Benzo(k)fluoranthene	ND	12	ug/kg	2.3
Benzo(a)pyrene	5.0 J	12	ug/kg	1.2
Indeno(1,2,3-cd)pyrene	26	12	ug/kg	1.2
Dibenzo(a,h)anthracene	ND	12	ug/kg	1.3
Benzo(ghi)perylene	22	12	ug/kg	1.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	57	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	56	(28 - 108)
2-Fluorophenol	51	(28 - 107)
Phenol-d5	55	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-017	Work Order #...:	L5VR21AP	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	23:34		
Dilution Factor:	4.98	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	76	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	58 J	140	ug/kg	12
Acenaphthylene	53 J	140	ug/kg	16
Acenaphthene	18 J	140	ug/kg	13
Fluorene	37 J	140	ug/kg	18
Phenanthrene	150	140	ug/kg	22
Anthracene	87 J	140	ug/kg	13
Fluoranthene	340	140	ug/kg	15
Pyrene	350	140	ug/kg	14
Benzo(a)anthracene	220	140	ug/kg	17
Chrysene	220	140	ug/kg	16
Benzo(b)fluoranthene	420	140	ug/kg	21
Benzo(k)fluoranthene	ND	140	ug/kg	28
Benzo(a)pyrene	200	140	ug/kg	14
Indeno(1,2,3-cd)pyrene	410	140	ug/kg	14
Dibenzo(a,h)anthracene	ND	140	ug/kg	15
Benzo(ghi)perylene	400	140	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(27 - 110)
Terphenyl-d14	67	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	59	(28 - 107)
Phenol-d5	60	(30 - 112)
2,4,6-Tribromophenol	73	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-022	**Work Order #...:**	L5VR91AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/24/10		
Prep Batch #...:	0235288	**Analysis Time..:**	16:00		
Dilution Factor:	4.98	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	69	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**53 J**	**110**	**ug/kg**	**9.4**
Acenaphthylene	**36 J**	**110**	**ug/kg**	**12**
Acenaphthene	ND	110	ug/kg	10
Fluorene	**34 J**	**110**	**ug/kg**	**14**
Phenanthrene	**130**	**110**	**ug/kg**	**17**
Anthracene	**44 J**	**110**	**ug/kg**	**11**
Fluoranthene	**310**	**110**	**ug/kg**	**12**
Pyrene	**330**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**150**	**110**	**ug/kg**	**14**
Chrysene	**180**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**350**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**150**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**320**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	ND	110	ug/kg	12
Benzo(ghi)perylene	**310**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	92	(27 - 110)
Terphenyl-d14	74	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	75	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-023	Work Order #...:	L5VTC1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0235288	Analysis Time..:	16:22		
Dilution Factor:	5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	68	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	130	110	ug/kg	9.0
Acenaphthylene	56 J	110	ug/kg	12
Acenaphthene	25 J	110	ug/kg	10
Fluorene	69 J	110	ug/kg	14
Phenanthrene	280	110	ug/kg	17
Anthracene	97 J	110	ug/kg	10
Fluoranthene	600	110	ug/kg	11
Pyrene	640	110	ug/kg	11
Benzo(a)anthracene	280	110	ug/kg	13
Chrysene	370	110	ug/kg	12
Benzo(b)fluoranthene	580	110	ug/kg	16
Benzo(k)fluoranthene	ND	110	ug/kg	21
Benzo(a)pyrene	320	110	ug/kg	10
Indeno(1,2,3-cd)pyrene	400	110	ug/kg	11
Dibenzo(a,h)anthracene	ND	110	ug/kg	12
Benzo(ghi)perylene	410	110	ug/kg	10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	93	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	76	(28 - 107)
Phenol-d5	76	(30 - 112)
2,4,6-Tribromophenol	85	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-024	Work Order #...:	L5VTD1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0235288	Analysis Time..:	16:44		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**21 J**	**45**	**ug/kg**	**3.8**
Acenaphthylene	**7.9 J**	**45**	**ug/kg**	**5.1**
Acenaphthene	ND	45	ug/kg	4.3
Fluorene	**8.4 J**	**45**	**ug/kg**	**5.9**
Phenanthrene	**38 J**	**45**	**ug/kg**	**7.1**
Anthracene	**9.0 J**	**45**	**ug/kg**	**4.4**
Fluoranthene	**40 J**	**45**	**ug/kg**	**4.8**
Pyrene	**41 J**	**45**	**ug/kg**	**4.5**
Benzo(a)anthracene	**18 J**	**45**	**ug/kg**	**5.6**
Chrysene	**32 J**	**45**	**ug/kg**	**5.3**
Benzo(b)fluoranthene	**46**	**45**	**ug/kg**	**7.0**
Benzo(k)fluoranthene	ND	45	ug/kg	9.0
Benzo(a)pyrene	**21 J**	**45**	**ug/kg**	**4.5**
Indeno(1,2,3-cd)pyrene	**100**	**45**	**ug/kg**	**4.6**
Dibenzo(a,h)anthracene	ND	45	ug/kg	5.0
Benzo(ghi)perylene	**84**	**45**	**ug/kg**	**4.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	88	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	71	(28 - 108)
2-Fluorophenol	69	(28 - 107)
Phenol-d5	72	(30 - 112)
2,4,6-Tribromophenol	79	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-021	**Work Order #...:**	L5VR71AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/24/10		
Prep Batch #...:	0235288	**Analysis Time..:**	15:38		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	72	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	120	ug/kg	10
Acenaphthylene	ND	120	ug/kg	14
Acenaphthene	ND	120	ug/kg	11
Fluorene	ND	120	ug/kg	16
Phenanthrene	**66 J**	**120**	**ug/kg**	**19**
Anthracene	**29 J**	**120**	**ug/kg**	**12**
Fluoranthene	**170**	**120**	**ug/kg**	**13**
Pyrene	**170**	**120**	**ug/kg**	**12**
Benzo(a)anthracene	**85 J**	**120**	**ug/kg**	**15**
Chrysene	**120**	**120**	**ug/kg**	**14**
Benzo(b)fluoranthene	**200**	**120**	**ug/kg**	**19**
Benzo(k)fluoranthene	ND	120	ug/kg	24
Benzo(a)pyrene	**99 J**	**120**	**ug/kg**	**12**
Indeno(1,2,3-cd)pyrene	**290**	**120**	**ug/kg**	**12**
Dibenzo(a,h)anthracene	ND	120	ug/kg	13
Benzo(ghi)perylene	**240**	**120**	**ug/kg**	**12**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	57	(27 - 110)
Terphenyl-d14	56	(21 - 130)
2-Fluorobiphenyl	59	(28 - 108)
2-Fluorophenol	48	(28 - 107)
Phenol-d5	54	(30 - 112)
2,4,6-Tribromophenol	58	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-01

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-026	**Work Order #...:** L5VTG1AC	**Matrix.....:** SOLID	
Date Sampled...: 08/18/10	**Date Received..:** 08/19/10	**MS Run #.....:**	
Prep Date.....: 08/23/10	**Analysis Date..:** 08/24/10		
Prep Batch #...: 0235288	**Analysis Time..:** 17:28		
Dilution Factor: 1	**Initial Wgt/Vol:** 30.1 g	**Final Wgt/Vol..:** 0.5 mL	
% Moisture.....: 40	**Analyst ID.....:** 003200	**Instrument ID..:** 731	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	11	ug/kg	0.96
Acenaphthylene	ND	11	ug/kg	1.3
Acenaphthene	ND	11	ug/kg	1.1
Fluorene	ND	11	ug/kg	1.5
Phenanthrene	**2.8 J**	**11**	**ug/kg**	**1.8**
Anthracene	ND	11	ug/kg	1.1
Fluoranthene	**1.8 J**	**11**	**ug/kg**	**1.2**
Pyrene	ND	11	ug/kg	1.1
Benzo(a)anthracene	ND	11	ug/kg	1.4
Chrysene	ND	11	ug/kg	1.3
Benzo(b)fluoranthene	ND	11	ug/kg	1.7
Benzo(k)fluoranthene	ND	11	ug/kg	2.2
Benzo(a)pyrene	ND	11	ug/kg	1.1
Indeno(1,2,3-cd)pyrene	ND	11	ug/kg	1.1
Dibenzo(a,h)anthracene	ND	11	ug/kg	1.2
Benzo(ghi)perylene	ND	11	ug/kg	1.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	72	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	78	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-027	**Work Order #...:**	L5VTH1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/24/10		
Prep Batch #...:	0235288	**Analysis Time..:**	17:50		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	18	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	4.1	ug/kg	0.35
Acenaphthylene	ND	4.1	ug/kg	0.46
Acenaphthene	ND	4.1	ug/kg	0.39
Fluorene	ND	4.1	ug/kg	0.53
Phenanthrene	**1.2 J**	**4.1**	**ug/kg**	**0.64**
Anthracene	ND	4.1	ug/kg	0.40
Fluoranthene	ND	4.1	ug/kg	0.43
Pyrene	ND	4.1	ug/kg	0.41
Benzo(a)anthracene	ND	4.1	ug/kg	0.51
Chrysene	ND	4.1	ug/kg	0.48
Benzo(b)fluoranthene	ND	4.1	ug/kg	0.64
Benzo(k)fluoranthene	ND	4.1	ug/kg	0.82
Benzo(a)pyrene	ND	4.1	ug/kg	0.40
Indeno(1,2,3-cd)pyrene	ND	4.1	ug/kg	0.42
Dibenzo(a,h)anthracene	ND	4.1	ug/kg	0.45
Benzo(ghi)perylene	ND	4.1	ug/kg	0.40

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	59	(28 - 108)
2-Fluorophenol	61	(28 - 107)
Phenol-d5	66	(30 - 112)
2,4,6-Tribromophenol	74	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-025	Work Order #...:	L5VTE1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0235288	Analysis Time..:	17:06		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	45	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	31	ug/kg	2.6
Acenaphthylene	ND	31	ug/kg	3.5
Acenaphthene	ND	31	ug/kg	2.9
Fluorene	ND	31	ug/kg	4.0
Phenanthrene	**9.7 J**	**31**	**ug/kg**	**4.9**
Anthracene	**5.6 J**	**31**	**ug/kg**	**3.0**
Fluoranthene	**37**	**31**	**ug/kg**	**3.3**
Pyrene	**32**	**31**	**ug/kg**	**3.1**
Benzo(a)anthracene	**25 J**	**31**	**ug/kg**	**3.8**
Chrysene	**26 J**	**31**	**ug/kg**	**3.6**
Benzo(b)fluoranthene	**41**	**31**	**ug/kg**	**4.8**
Benzo(k)fluoranthene	**16 J**	**31**	**ug/kg**	**6.2**
Benzo(a)pyrene	**24 J**	**31**	**ug/kg**	**3.1**
Indeno(1,2,3-cd)pyrene	**74**	**31**	**ug/kg**	**3.1**
Dibenzo(a,h)anthracene	ND	31	ug/kg	3.4
Benzo(ghi)perylene	**66**	**31**	**ug/kg**	**3.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(27 - 110)
Terphenyl-d14	90	(21 - 130)
2-Fluorobiphenyl	82	(28 - 108)
2-Fluorophenol	76	(28 - 107)
Phenol-d5	83	(30 - 112)
2,4,6-Tribromophenol	100	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-01

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-029	**Work Order #...:** L5VTL1AC	**Matrix.....:** SOLID	
Date Sampled...: 08/18/10	**Date Received..:** 08/19/10	**MS Run #.....:**	
Prep Date.....: 08/23/10	**Analysis Date..:** 08/24/10		
Prep Batch #...: 0235288	**Analysis Time..:** 18:34		
Dilution Factor: 2.48	**Initial Wgt/Vol:** 30.2 g	**Final Wgt/Vol..:** 0.5 mL	
% Moisture.....: 62	**Analyst ID.....:** 003200	**Instrument ID..:** 731	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	44	ug/kg	3.8
Acenaphthylene	ND	44	ug/kg	5.0
Acenaphthene	ND	44	ug/kg	4.2
Fluorene	ND	44	ug/kg	5.8
Phenanthrene	ND	44	ug/kg	7.0
Anthracene	ND	44	ug/kg	4.3
Fluoranthene	**4.8 J**	**44**	**ug/kg**	**4.7**
Pyrene	**4.7 J**	**44**	**ug/kg**	**4.4**
Benzo(a)anthracene	ND	44	ug/kg	5.5
Chrysene	ND	44	ug/kg	5.2
Benzo(b)fluoranthene	ND	44	ug/kg	6.9
Benzo(k)fluoranthene	ND	44	ug/kg	8.9
Benzo(a)pyrene	ND	44	ug/kg	4.4
Indeno(1,2,3-cd)pyrene	ND	44	ug/kg	4.5
Dibenzo(a,h)anthracene	ND	44	ug/kg	4.9
Benzo(ghi)perylene	ND	44	ug/kg	4.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	66	(21 - 130)
2-Fluorobiphenyl	60	(28 - 108)
2-Fluorophenol	58	(28 - 107)
Phenol-d5	66	(30 - 112)
2,4,6-Tribromophenol	68	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-030	**Work Order #...:**	L5VTM1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/24/10		
Prep Batch #...:	0235288	**Analysis Time..:**	18:57		
Dilution Factor:	1	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	64	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	18	ug/kg	1.6
Acenaphthylene	ND	18	ug/kg	2.1
Acenaphthene	ND	18	ug/kg	1.8
Fluorene	ND	18	ug/kg	2.4
Phenanthrene	**4.3 J**	**18**	**ug/kg**	**2.9**
Anthracene	ND	18	ug/kg	1.8
Fluoranthene	ND	18	ug/kg	2.0
Pyrene	ND	18	ug/kg	1.9
Benzo(a)anthracene	ND	18	ug/kg	2.3
Chrysene	ND	18	ug/kg	2.2
Benzo(b)fluoranthene	ND	18	ug/kg	2.9
Benzo(k)fluoranthene	ND	18	ug/kg	3.7
Benzo(a)pyrene	ND	18	ug/kg	1.8
Indeno(1,2,3-cd)pyrene	ND	18	ug/kg	1.9
Dibenzo(a,h)anthracene	ND	18	ug/kg	2.0
Benzo(ghi)perylene	ND	18	ug/kg	1.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	64	(28 - 107)
Phenol-d5	71	(30 - 112)
2,4,6-Tribromophenol	80	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-031	**Work Order #...:**	L5VTN1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/25/10		
Prep Batch #...:	0235288	**Analysis Time..:**	14:18		
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	56	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	15	ug/kg	1.3
Acenaphthylene	ND	15	ug/kg	1.7
Acenaphthene	ND	15	ug/kg	1.5
Fluorene	ND	15	ug/kg	2.0
Phenanthrene	**2.4 J**	**15**	**ug/kg**	**2.4**
Anthracene	ND	15	ug/kg	1.5
Fluoranthene	ND	15	ug/kg	1.6
Pyrene	ND	15	ug/kg	1.5
Benzo(a)anthracene	ND	15	ug/kg	1.9
Chrysene	ND	15	ug/kg	1.8
Benzo(b)fluoranthene	ND	15	ug/kg	2.4
Benzo(k)fluoranthene	ND	15	ug/kg	3.1
Benzo(a)pyrene	ND	15	ug/kg	1.5
Indeno(1,2,3-cd)pyrene	ND	15	ug/kg	1.6
Dibenzo(a,h)anthracene	ND	15	ug/kg	1.7
Benzo(ghi)perylene	ND	15	ug/kg	1.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	63	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-028	Work Order #...:	L5VTK1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/24/10		
Prep Batch #...:	0235288	Analysis Time..:	18:12		
Dilution Factor:	0.99	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	65	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	42	19	ug/kg	1.6
Acenaphthylene	15 J	19	ug/kg	2.2
Acenaphthene	ND	19	ug/kg	1.8
Fluorene	21	19	ug/kg	2.5
Phenanthrene	79	19	ug/kg	3.0
Anthracene	26	19	ug/kg	1.8
Fluoranthene	130	19	ug/kg	2.0
Pyrene	110	19	ug/kg	1.9
Benzo(a)anthracene	60	19	ug/kg	2.4
Chrysene	71	19	ug/kg	2.2
Benzo(b)fluoranthene	130	19	ug/kg	3.0
Benzo(k)fluoranthene	ND	19	ug/kg	3.8
Benzo(a)pyrene	56	19	ug/kg	1.9
Indeno(1,2,3-cd)pyrene	72	19	ug/kg	1.9
Dibenzo(a,h)anthracene	41	19	ug/kg	2.1
Benzo(ghi)perylene	71	19	ug/kg	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(27 - 110)
Terphenyl-d14	70	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	82	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-033	**Work Order #...:**	L5VTT1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/25/10		
Prep Batch #...:	0235288	**Analysis Time..:**	15:01		
Dilution Factor:	4.98	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	70	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**58 J**	**110**	**ug/kg**	**9.5**
Acenaphthylene	ND	110	ug/kg	13
Acenaphthene	**23 J**	**110**	**ug/kg**	**11**
Fluorene	**24 J**	**110**	**ug/kg**	**15**
Phenanthrene	**140**	**110**	**ug/kg**	**18**
Anthracene	**61 J**	**110**	**ug/kg**	**11**
Fluoranthene	**290**	**110**	**ug/kg**	**12**
Pyrene	**440**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**200**	**110**	**ug/kg**	**14**
Chrysene	**240**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**480**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**240**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**370**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**220**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**360**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	93	(27 - 110)
Terphenyl-d14	107	(21 - 130)
2-Fluorobiphenyl	87	(28 - 108)
2-Fluorophenol	79	(28 - 107)
Phenol-d5	83	(30 - 112)
2,4,6-Tribromophenol	89	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-034	Work Order #...:	L5VTV1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235288	Analysis Time..:	15:22		
Dilution Factor:	4.98	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	67	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	78 J	100	ug/kg	8.7
Acenaphthylene	32 J	100	ug/kg	12
Acenaphthene	20 J	100	ug/kg	9.7
Fluorene	29 J	100	ug/kg	13
Phenanthrene	190	100	ug/kg	16
Anthracene	69 J	100	ug/kg	9.9
Fluoranthene	330	100	ug/kg	11
Pyrene	470	100	ug/kg	10
Benzo(a)anthracene	170	100	ug/kg	13
Chrysene	250	100	ug/kg	12
Benzo(b)fluoranthene	420	100	ug/kg	16
Benzo(k)fluoranthene	ND	100	ug/kg	20
Benzo(a)pyrene	240	100	ug/kg	10
Indeno(1,2,3-cd)pyrene	360	100	ug/kg	10
Dibenzo(a,h)anthracene	200	100	ug/kg	11
Benzo(ghi)perylene	380	100	ug/kg	10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	97	(27 - 110)
Terphenyl-d14	100	(21 - 130)
2-Fluorobiphenyl	90	(28 - 108)
2-Fluorophenol	84	(28 - 107)
Phenol-d5	81	(30 - 112)
2,4,6-Tribromophenol	89	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-035	Work Order #...:	L5VTW1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235288	Analysis Time..:	15:43		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	65	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	83	19	ug/kg	1.7
Acenaphthylene	26	19	ug/kg	2.2
Acenaphthene	16 J	19	ug/kg	1.8
Fluorene	30	19	ug/kg	2.5
Phenanthrene	190	19	ug/kg	3.1
Anthracene	58	19	ug/kg	1.9
Fluoranthene	270	19	ug/kg	2.1
Pyrene	370	19	ug/kg	1.9
Benzo(a)anthracene	160	19	ug/kg	2.4
Chrysene	180	19	ug/kg	2.3
Benzo(b)fluoranthene	290	19	ug/kg	3.0
Benzo(k)fluoranthene	ND	19	ug/kg	3.9
Benzo(a)pyrene	160	19	ug/kg	1.9
Indeno(1,2,3-cd)pyrene	150	19	ug/kg	2.0
Dibenzo(a,h)anthracene	70	19	ug/kg	2.1
Benzo(ghi)perylene	170	19	ug/kg	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(27 - 110)
Terphenyl-d14	83	(21 - 130)
2-Fluorobiphenyl	72	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	67	(30 - 112)
2,4,6-Tribromophenol	90	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-SS

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-032	Work Order #...: L5VTP1AC	Matrix.....: SOLID	
Date Sampled...: 08/18/10	Date Received..: 08/19/10	MS Run #.....:	
Prep Date.....: 08/23/10	Analysis Date..: 08/25/10		
Prep Batch #...: 0235288	Analysis Time..: 14:40		
Dilution Factor: 2	Initial Wgt/Vol: 30 g	Final Wgt/Vol..: 0.5 mL	
% Moisture.....: 71	Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	42 J	45	ug/kg	3.9
Acenaphthylene	21 J	45	ug/kg	5.2
Acenaphthene	16 J	45	ug/kg	4.4
Fluorene	27 J	45	ug/kg	6.0
Phenanthrene	120	45	ug/kg	7.2
Anthracene	51	45	ug/kg	4.4
Fluoranthene	230	45	ug/kg	4.8
Pyrene	350	45	ug/kg	4.6
Benzo(a)anthracene	150	45	ug/kg	5.7
Chrysene	200	45	ug/kg	5.4
Benzo(b)fluoranthene	350	45	ug/kg	7.1
Benzo(k)fluoranthene	ND	45	ug/kg	9.2
Benzo(a)pyrene	170	45	ug/kg	4.5
Indeno(1,2,3-cd)pyrene	220	45	ug/kg	4.7
Dibenzo(a,h)anthracene	100	45	ug/kg	5.0
Benzo(ghi)perylene	220	45	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(27 - 110)
Terphenyl-d14	100	(21 - 130)
2-Fluorobiphenyl	81	(28 - 108)
2-Fluorophenol	76	(28 - 107)
Phenol-d5	81	(30 - 112)
2,4,6-Tribromophenol	96	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-038	Work Order #...:	L5VT11AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235288	Analysis Time..:	16:47		
Dilution Factor:	12.38	Initial Wgt/Vol:	30.3 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	45	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	100 J	150	ug/kg	13
Acenaphthylene	150	150	ug/kg	17
Acenaphthene	350	150	ug/kg	14
Fluorene	190	150	ug/kg	20
Phenanthrene	2300	150	ug/kg	24
Anthracene	620	150	ug/kg	15
Fluoranthene	3900	150	ug/kg	16
Pyrene	4000	150	ug/kg	15
Benzo(a)anthracene	2400	150	ug/kg	19
Chrysene	2300	150	ug/kg	18
Benzo(b)fluoranthene	3400	150	ug/kg	24
Benzo(k)fluoranthene	ND	150	ug/kg	30
Benzo(a)pyrene	2200	150	ug/kg	15
Indeno(1,2,3-cd)pyrene	1700	150	ug/kg	15
Dibenzo(a,h)anthracene	700	150	ug/kg	17
Benzo(ghi)perylene	2000	150	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-02

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-039	Work Order #...: L5VT21AC	Matrix.....: SOLID
Date Sampled...: 08/18/10	Date Received..: 08/19/10	MS Run #.....:
Prep Date.....: 08/23/10	Analysis Date..: 08/25/10	
Prep Batch #...: 0235288	Analysis Time..: 17:08	
Dilution Factor: 12.46	Initial Wgt/Vol: 30.1 g	Final Wgt/Vol..: 0.5 mL
% Moisture.....: 52	Analyst ID.....: 003200	Instrument ID..: 731
	Method.....: SW846 8270C	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	300	170	ug/kg	15
Acenaphthylene	190	170	ug/kg	20
Acenaphthene	2100	170	ug/kg	17
Fluorene	1400	170	ug/kg	23
Phenanthrene	9600	170	ug/kg	28
Anthracene	2800	170	ug/kg	17
Fluoranthene	15000	170	ug/kg	19
Pyrene	12000	170	ug/kg	18
Benzo(a)anthracene	7100	170	ug/kg	22
Chrysene	7200	170	ug/kg	21
Benzo(b)fluoranthene	9600	170	ug/kg	27
Benzo(k)fluoranthene	ND	170	ug/kg	35
Benzo(a)pyrene	6100	170	ug/kg	17
Indeno(1,2,3-cd)pyrene	3600	170	ug/kg	18
Dibenzo(a,h)anthracene	1400	170	ug/kg	19
Benzo(ghi)perylene	3900	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-040	**Work Order #...:**	L5VT31AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/25/10		
Prep Batch #...:	0235288	**Analysis Time..:**	17:29		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	51	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	34	ug/kg	2.9
Acenaphthylene	ND	34	ug/kg	3.9
Acenaphthene	**8.2 J**	**34**	**ug/kg**	**3.3**
Fluorene	**5.6 J**	**34**	**ug/kg**	**4.5**
Phenanthrene	**21 J**	**34**	**ug/kg**	**5.4**
Anthracene	**4.8 J**	**34**	**ug/kg**	**3.3**
Fluoranthene	**33 J**	**34**	**ug/kg**	**3.6**
Pyrene	**48**	**34**	**ug/kg**	**3.4**
Benzo(a)anthracene	**24 J**	**34**	**ug/kg**	**4.2**
Chrysene	**26 J**	**34**	**ug/kg**	**4.0**
Benzo(b)fluoranthene	**41**	**34**	**ug/kg**	**5.3**
Benzo(k)fluoranthene	ND	34	ug/kg	6.9
Benzo(a)pyrene	**25 J**	**34**	**ug/kg**	**3.4**
Indeno(1,2,3-cd)pyrene	**84**	**34**	**ug/kg**	**3.5**
Dibenzo(a,h)anthracene	ND	34	ug/kg	3.8
Benzo(ghi)perylene	**71**	**34**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	101	(27 - 110)
Terphenyl-d14	88	(21 - 130)
2-Fluorobiphenyl	95	(28 - 108)
2-Fluorophenol	90	(28 - 107)
Phenol-d5	91	(30 - 112)
2,4,6-Tribromophenol	105	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-037	Work Order #...:	L5VT01AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235288	Analysis Time..:	16:26		
Dilution Factor:	12.42	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	59	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	52 J	200	ug/kg	17
Acenaphthylene	120 J	200	ug/kg	23
Acenaphthene	84 J	200	ug/kg	19
Fluorene	100 J	200	ug/kg	27
Phenanthrene	1500	200	ug/kg	32
Anthracene	350	200	ug/kg	20
Fluoranthene	2700	200	ug/kg	22
Pyrene	3300	200	ug/kg	20
Benzo(a)anthracene	1600	200	ug/kg	25
Chrysene	1700	200	ug/kg	24
Benzo(b)fluoranthene	2600	200	ug/kg	32
Benzo(k)fluoranthene	ND	200	ug/kg	41
Benzo(a)pyrene	1500	200	ug/kg	20
Indeno(1,2,3-cd)pyrene	1500	200	ug/kg	21
Dibenzo(a,h)anthracene	630	200	ug/kg	22
Benzo(ghi)perylene	1700	200	ug/kg	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-014	Work Order #...:	L5VRT1AJ	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	22:29		
Dilution Factor:	12.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	46	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	89 J	160	ug/kg	13
Acenaphthylene	140 J	160	ug/kg	18
Acenaphthene	410	160	ug/kg	15
Fluorene	240	160	ug/kg	20
Phenanthrene	2300	160	ug/kg	25
Anthracene	660	160	ug/kg	15
Fluoranthene	3800	160	ug/kg	17
Pyrene	3500	160	ug/kg	16
Benzo(a)anthracene	2300	160	ug/kg	19
Chrysene	2000	160	ug/kg	18
Benzo(b)fluoranthene	3200	160	ug/kg	24
Benzo(k)fluoranthene	ND	160	ug/kg	31
Benzo(a)pyrene	2000	160	ug/kg	15
Indeno(1,2,3-cd)pyrene	1400	160	ug/kg	16
Dibenzo(a,h)anthracene	540	160	ug/kg	17
Benzo(ghi)perylene	1600	160	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-015	Work Order #...:	L5VRX1AP	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	22:50		
Dilution Factor:	12.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	52	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	130 J	170	ug/kg	15
Acenaphthylene	320	170	ug/kg	20
Acenaphthene	230	170	ug/kg	17
Fluorene	180	170	ug/kg	23
Phenanthrene	1500	170	ug/kg	27
Anthracene	740	170	ug/kg	17
Fluoranthene	4600	170	ug/kg	18
Pyrene	4900	170	ug/kg	17
Benzo(a)anthracene	2500	170	ug/kg	22
Chrysene	3100	170	ug/kg	21
Benzo(b)fluoranthene	4600	170	ug/kg	27
Benzo(k)fluoranthene	ND	170	ug/kg	35
Benzo(a)pyrene	2900	170	ug/kg	17
Indeno(1,2,3-cd)pyrene	2100	170	ug/kg	18
Dibenzo(a,h)anthracene	860	170	ug/kg	19
Benzo(ghi)perylene	2300	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-016	Work Order #...:	L5VR01AV	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	23:12		
Dilution Factor:	1	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	60	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	13 J	17	ug/kg	1.4
Acenaphthylene	15 J	17	ug/kg	1.9
Acenaphthene	16 J	17	ug/kg	1.6
Fluorene	13 J	17	ug/kg	2.2
Phenanthrene	120	17	ug/kg	2.6
Anthracene	37	17	ug/kg	1.6
Fluoranthene	240	17	ug/kg	1.8
Pyrene	250	17	ug/kg	1.7
Benzo(a)anthracene	160	17	ug/kg	2.1
Chrysene	160	17	ug/kg	2.0
Benzo(b)fluoranthene	250	17	ug/kg	2.6
Benzo(k)fluoranthene	ND	17	ug/kg	3.3
Benzo(a)pyrene	160	17	ug/kg	1.7
Indeno(1,2,3-cd)pyrene	120	17	ug/kg	1.7
Dibenzo(a,h)anthracene	54	17	ug/kg	1.8
Benzo(ghi)perylene	130	17	ug/kg	1.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	84	(21 - 130)
2-Fluorobiphenyl	86	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	77	(30 - 112)
2,4,6-Tribromophenol	102	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-SS

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-013	Work Order #...: L5VRR1AD	Matrix.....: SOLID
Date Sampled...: 08/18/10	Date Received..: 08/19/10	MS Run #.....:
Prep Date.....: 08/23/10	Analysis Date..: 08/25/10	
Prep Batch #...: 0235285	Analysis Time..: 22:08	
Dilution Factor: 12.42	Initial Wgt/Vol: 30.2 g	Final Wgt/Vol..: 0.5 mL
% Moisture.....: 63	Analyst ID.....: 003200	Instrument ID..: 731
	Method.....: SW846 8270C	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	62 J	220	ug/kg	19
Acenaphthylene	120 J	220	ug/kg	26
Acenaphthene	85 J	220	ug/kg	21
Fluorene	67 J	220	ug/kg	29
Phenanthrene	830	220	ug/kg	35
Anthracene	300	220	ug/kg	22
Fluoranthene	1700	220	ug/kg	24
Pyrene	2000	220	ug/kg	23
Benzo(a)anthracene	1200	220	ug/kg	28
Chrysene	1400	220	ug/kg	27
Benzo(b)fluoranthene	2100	220	ug/kg	35
Benzo(k)fluoranthene	ND	220	ug/kg	45
Benzo(a)pyrene	1300	220	ug/kg	22
Indeno(1,2,3-cd)pyrene	1300	220	ug/kg	23
Dibenzo(a,h)anthracene	630	220	ug/kg	25
Benzo(ghi)perylene	1400	220	ug/kg	22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-002	**Work Order #...:**	L5VQ81AC	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/25/10		
Prep Batch #...:	0235285	**Analysis Time..:**	18:12		
Dilution Factor:	0.99	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	33	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	10	ug/kg	0.85
Acenaphthylene	ND	10	ug/kg	1.1
Acenaphthene	ND	10	ug/kg	0.95
Fluorene	ND	10	ug/kg	1.3
Phenanthrene	**2.4 J**	**10**	**ug/kg**	**1.6**
Anthracene	ND	10	ug/kg	0.97
Fluoranthene	ND	10	ug/kg	1.1
Pyrene	ND	10	ug/kg	1.0
Benzo(a)anthracene	ND	10	ug/kg	1.2
Chrysene	ND	10	ug/kg	1.2
Benzo(b)fluoranthene	ND	10	ug/kg	1.6
Benzo(k)fluoranthene	ND	10	ug/kg	2.0
Benzo(a)pyrene	ND	10	ug/kg	0.99
Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	1.0
Dibenzo(a,h)anthracene	ND	10	ug/kg	1.1
Benzo(ghi)perylene	ND	10	ug/kg	0.99

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	62	(27 - 110)
Terphenyl-d14	61	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	58	(28 - 107)
Phenol-d5	59	(30 - 112)
2,4,6-Tribromophenol	71	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-SS

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-001	Work Order #...: L5VQ71AC	Matrix.....: SOLID	
Date Sampled...: 08/17/10	Date Received..: 08/19/10	MS Run #.....:	
Prep Date.....: 08/23/10	Analysis Date..: 08/25/10		
Prep Batch #...: 0235285	Analysis Time..: 17:51		
Dilution Factor: 1	Initial Wgt/Vol: 30 g	Final Wgt/Vol..: 0.5 mL	
% Moisture.....: 47	Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**2.8 J**	**13**	**ug/kg**	**1.1**
Acenaphthylene	ND	13	ug/kg	1.4
Acenaphthene	ND	13	ug/kg	1.2
Fluorene	**2.2 J**	**13**	**ug/kg**	**1.6**
Phenanthrene	**7.2 J**	**13**	**ug/kg**	**2.0**
Anthracene	**2.6 J**	**13**	**ug/kg**	**1.2**
Fluoranthene	**16**	**13**	**ug/kg**	**1.3**
Pyrene	**18**	**13**	**ug/kg**	**1.3**
Benzo(a)anthracene	**8.7 J**	**13**	**ug/kg**	**1.6**
Chrysene	**9.1 J**	**13**	**ug/kg**	**1.5**
Benzo(b)fluoranthene	**14**	**13**	**ug/kg**	**2.0**
Benzo(k)fluoranthene	ND	13	ug/kg	2.5
Benzo(a)pyrene	**9.4 J**	**13**	**ug/kg**	**1.2**
Indeno(1,2,3-cd)pyrene	**33**	**13**	**ug/kg**	**1.3**
Dibenzo(a,h)anthracene	ND	13	ug/kg	1.4
Benzo(ghi)perylene	**29**	**13**	**ug/kg**	**1.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	64	(28 - 108)
2-Fluorophenol	50	(28 - 107)
Phenol-d5	56	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-004	Work Order #...:	L5VRD1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	18:54		
Dilution Factor:	1.99	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	33	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	10 J	20	ug/kg	1.7
Acenaphthylene	18 J	20	ug/kg	2.3
Acenaphthene	12 J	20	ug/kg	1.9
Fluorene	13 J	20	ug/kg	2.6
Phenanthrene	150	20	ug/kg	3.1
Anthracene	35	20	ug/kg	1.9
Fluoranthene	300	20	ug/kg	2.1
Pyrene	300	20	ug/kg	2.0
Benzo(a)anthracene	180	20	ug/kg	2.5
Chrysene	160	20	ug/kg	2.4
Benzo(b)fluoranthene	290	20	ug/kg	3.1
Benzo(k)fluoranthene	ND	20	ug/kg	4.0
Benzo(a)pyrene	160	20	ug/kg	2.0
Indeno(1,2,3-cd)pyrene	140	20	ug/kg	2.0
Dibenzo(a,h)anthracene	75	20	ug/kg	2.2
Benzo(ghi)perylene	150	20	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	80	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	75	(30 - 112)
2,4,6-Tribromophenol	88	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-005	Work Order #...:	L5VRE1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	19:16		
Dilution Factor:	2	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	48	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	23 J	26	ug/kg	2.2
Acenaphthylene	26	26	ug/kg	2.9
Acenaphthene	22 J	26	ug/kg	2.5
Fluorene	23 J	26	ug/kg	3.4
Phenanthrene	190	26	ug/kg	4.1
Anthracene	66	26	ug/kg	2.5
Fluoranthene	420	26	ug/kg	2.7
Pyrene	430	26	ug/kg	2.6
Benzo(a)anthracene	250	26	ug/kg	3.2
Chrysene	260	26	ug/kg	3.0
Benzo(b)fluoranthene	420	26	ug/kg	4.0
Benzo(k)fluoranthene	ND	26	ug/kg	5.2
Benzo(a)pyrene	240	26	ug/kg	2.6
Indeno(1,2,3-cd)pyrene	210	26	ug/kg	2.6
Dibenzo(a,h)anthracene	92	26	ug/kg	2.8
Benzo(ghi)perylene	220	26	ug/kg	2.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(27 - 110)
Terphenyl-d14	75	(21 - 130)
2-Fluorobiphenyl	79	(28 - 108)
2-Fluorophenol	71	(28 - 107)
Phenol-d5	74	(30 - 112)
2,4,6-Tribromophenol	94	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-04

GC/MS Semivolatiles

Lot-Sample #...: C0H190588-006	Work Order #...: L5VRG1AC	Matrix.....: SOLID	
Date Sampled...: 08/17/10	Date Received..: 08/19/10	MS Run #.....:	
Prep Date.....: 08/23/10	Analysis Date..: 08/25/10		
Prep Batch #...: 0235285	Analysis Time..: 19:38		
Dilution Factor: 2	Initial Wgt/Vol: 30 g	Final Wgt/Vol..: 0.5 mL	
% Moisture.....: 40	Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	14 J	22	ug/kg	1.9
Acenaphthylene	16 J	22	ug/kg	2.5
Acenaphthene	8.2 J	22	ug/kg	2.1
Fluorene	7.6 J	22	ug/kg	2.9
Phenanthrene	75	22	ug/kg	3.5
Anthracene	25	22	ug/kg	2.2
Fluoranthene	140	22	ug/kg	2.4
Pyrene	170	22	ug/kg	2.2
Benzo(a)anthracene	73	22	ug/kg	2.8
Chrysene	100	22	ug/kg	2.6
Benzo(b)fluoranthene	140	22	ug/kg	3.5
Benzo(k)fluoranthene	ND	22	ug/kg	4.5
Benzo(a)pyrene	77	22	ug/kg	2.2
Indeno(1,2,3-cd)pyrene	91	22	ug/kg	2.3
Dibenzo(a,h)anthracene	52	22	ug/kg	2.5
Benzo(ghi)perylene	99	22	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	64	(30 - 112)
2,4,6-Tribromophenol	66	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-003	Work Order #...:	L5VQ91AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	18:33		
Dilution Factor:	1.99	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	30	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	5.1 J	19	ug/kg	1.6
Acenaphthylene	8.7 J	19	ug/kg	2.2
Acenaphthene	3.9 J	19	ug/kg	1.8
Fluorene	5.3 J	19	ug/kg	2.5
Phenanthrene	36	19	ug/kg	3.0
Anthracene	15 J	19	ug/kg	1.8
Fluoranthene	110	19	ug/kg	2.0
Pyrene	100	19	ug/kg	1.9
Benzo(a)anthracene	55	19	ug/kg	2.4
Chrysene	75	19	ug/kg	2.2
Benzo(b)fluoranthene	130	19	ug/kg	3.0
Benzo(k)fluoranthene	ND	19	ug/kg	3.8
Benzo(a)pyrene	60	19	ug/kg	1.9
Indeno(1,2,3-cd)pyrene	80	19	ug/kg	1.9
Dibenzo(a,h)anthracene	49	19	ug/kg	2.1
Benzo(ghi)perylene	78	19	ug/kg	1.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(27 - 110)
Terphenyl-d14	67	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	81	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-008	Work Order #...:	L5VRJ1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	20:20		
Dilution Factor:	2	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	68	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	50	42	ug/kg	3.6
Acenaphthylene	50	42	ug/kg	4.8
Acenaphthene	24 J	42	ug/kg	4.0
Fluorene	34 J	42	ug/kg	5.5
Phenanthrene	220	42	ug/kg	6.6
Anthracene	89	42	ug/kg	4.1
Fluoranthene	470	42	ug/kg	4.5
Pyrene	630	42	ug/kg	4.2
Benzo(a)anthracene	330	42	ug/kg	5.2
Chrysene	360	42	ug/kg	5.0
Benzo(b)fluoranthene	580	42	ug/kg	6.6
Benzo(k)fluoranthene	ND	42	ug/kg	8.4
Benzo(a)pyrene	350	42	ug/kg	4.2
Indeno(1,2,3-cd)pyrene	310	42	ug/kg	4.3
Dibenzo(a,h)anthracene	140	42	ug/kg	4.6
Benzo(ghi)perylene	360	42	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(27 - 110)
Terphenyl-d14	76	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	55	(28 - 107)
Phenol-d5	59	(30 - 112)
2,4,6-Tribromophenol	90	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-009	Work Order #...:	L5VRK1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	20:42		
Dilution Factor:	2	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	66	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	68	40	ug/kg	3.4
Acenaphthylene	51	40	ug/kg	4.6
Acenaphthene	34 J	40	ug/kg	3.8
Fluorene	48	40	ug/kg	5.2
Phenanthrene	320	40	ug/kg	6.3
Anthracene	110	40	ug/kg	3.9
Fluoranthene	670	40	ug/kg	4.3
Pyrene	800	40	ug/kg	4.0
Benzo(a)anthracene	400	40	ug/kg	5.0
Chrysene	450	40	ug/kg	4.7
Benzo(b)fluoranthene	750	40	ug/kg	6.3
Benzo(k)fluoranthene	ND	40	ug/kg	8.0
Benzo(a)pyrene	450	40	ug/kg	4.0
Indeno(1,2,3-cd)pyrene	360	40	ug/kg	4.1
Dibenzo(a,h)anthracene	150	40	ug/kg	4.4
Benzo(ghi)perylene	390	40	ug/kg	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	81	(21 - 130)
2-Fluorobiphenyl	79	(28 - 108)
2-Fluorophenol	65	(28 - 107)
Phenol-d5	66	(30 - 112)
2,4,6-Tribromophenol	92	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-010	Work Order #...:	L5VRL1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	21:03		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	53	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	30 J	35	ug/kg	3.0
Acenaphthylene	26 J	35	ug/kg	4.0
Acenaphthene	16 J	35	ug/kg	3.4
Fluorene	40	35	ug/kg	4.6
Phenanthrene	120	35	ug/kg	5.6
Anthracene	36	35	ug/kg	3.4
Fluoranthene	170	35	ug/kg	3.8
Pyrene	190	35	ug/kg	3.6
Benzo(a)anthracene	92	35	ug/kg	4.4
Chrysene	120	35	ug/kg	4.2
Benzo(b)fluoranthene	170	35	ug/kg	5.5
Benzo(k)fluoranthene	ND	35	ug/kg	7.1
Benzo(a)pyrene	95	35	ug/kg	3.5
Indeno(1,2,3-cd)pyrene	130	35	ug/kg	3.6
Dibenzo(a,h)anthracene	71	35	ug/kg	3.9
Benzo(ghi)perylene	120	35	ug/kg	3.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	71	(21 - 130)
2-Fluorobiphenyl	78	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	78	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-007	Work Order #...:	L5VRH1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	19:59		
Dilution Factor:	1.99	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	73	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	48 J	50	ug/kg	4.3
Acenaphthylene	33 J	50	ug/kg	5.7
Acenaphthene	26 J	50	ug/kg	4.8
Fluorene	29 J	50	ug/kg	6.6
Phenanthrene	180	50	ug/kg	7.9
Anthracene	73	50	ug/kg	4.9
Fluoranthene	470	50	ug/kg	5.3
Pyrene	520	50	ug/kg	5.0
Benzo(a)anthracene	250	50	ug/kg	6.3
Chrysene	310	50	ug/kg	5.9
Benzo(b)fluoranthene	560	50	ug/kg	7.8
Benzo(k)fluoranthene	ND	50	ug/kg	10
Benzo(a)pyrene	290	50	ug/kg	5.0
Indeno(1,2,3-cd)pyrene	310	50	ug/kg	5.1
Dibenzo(a,h)anthracene	150	50	ug/kg	5.5
Benzo(ghi)perylene	340	50	ug/kg	5.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	64	(27 - 110)
Terphenyl-d14	67	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	60	(28 - 107)
Phenol-d5	64	(30 - 112)
2,4,6-Tribromophenol	82	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP1-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-011	Work Order #...:	L5VRM1AC	Matrix.....:	SOLID
Date Sampled...:	08/17/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	21:24		
Dilution Factor:	2	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	68	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	50	42	ug/kg	3.6
Acenaphthylene	62	42	ug/kg	4.8
Acenaphthene	30 J	42	ug/kg	4.0
Fluorene	33 J	42	ug/kg	5.5
Phenanthrene	210	42	ug/kg	6.6
Anthracene	100	42	ug/kg	4.1
Fluoranthene	480	42	ug/kg	4.5
Pyrene	610	42	ug/kg	4.2
Benzo(a)anthracene	320	42	ug/kg	5.2
Chrysene	370	42	ug/kg	5.0
Benzo(b)fluoranthene	640	42	ug/kg	6.6
Benzo(k)fluoranthene	ND	42	ug/kg	8.4
Benzo(a)pyrene	360	42	ug/kg	4.2
Indeno(1,2,3-cd)pyrene	330	42	ug/kg	4.3
Dibenzo(a,h)anthracene	150	42	ug/kg	4.6
Benzo(ghi)perylene	390	42	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	80	(28 - 108)
2-Fluorophenol	64	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	90	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP2-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-012	Work Order #...:	L5VRP1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235285	Analysis Time..:	21:46		
Dilution Factor:	2.49	Initial Wgt/Vol:	30.1 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**12 J**	**45**	**ug/kg**	**3.9**
Acenaphthylene	ND	45	ug/kg	5.1
Acenaphthene	ND	45	ug/kg	4.3
Fluorene	ND	45	ug/kg	5.9
Phenanthrene	**22 J**	**45**	**ug/kg**	**7.1**
Anthracene	**10 J**	**45**	**ug/kg**	**4.4**
Fluoranthene	**27 J**	**45**	**ug/kg**	**4.8**
Pyrene	**27 J**	**45**	**ug/kg**	**4.5**
Benzo(a)anthracene	**24 J**	**45**	**ug/kg**	**5.6**
Chrysene	**11 J**	**45**	**ug/kg**	**5.3**
Benzo(b)fluoranthene	**17 J**	**45**	**ug/kg**	**7.1**
Benzo(k)fluoranthene	**16 J**	**45**	**ug/kg**	**9.1**
Benzo(a)pyrene	**14 J**	**45**	**ug/kg**	**4.5**
Indeno(1,2,3-cd)pyrene	ND	45	ug/kg	4.6
Dibenzo(a,h)anthracene	ND	45	ug/kg	5.0
Benzo(ghi)perylene	ND	45	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(27 - 110)
Terphenyl-d14	54	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	63	(28 - 107)
Phenol-d5	63	(30 - 112)
2,4,6-Tribromophenol	72	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP3-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-036	Work Order #...:	L5VTX1AC	Matrix.....:	SOLID
Date Sampled...:	08/18/10	Date Received..:	08/19/10	MS Run #.....:	
Prep Date.....:	08/23/10	Analysis Date..:	08/25/10		
Prep Batch #...:	0235288	Analysis Time..:	16:04		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	66	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	71	50	ug/kg	4.3
Acenaphthylene	16 J	50	ug/kg	5.7
Acenaphthene	13 J	50	ug/kg	4.8
Fluorene	36 J	50	ug/kg	6.5
Phenanthrene	130	50	ug/kg	7.9
Anthracene	37 J	50	ug/kg	4.9
Fluoranthene	150	50	ug/kg	5.3
Pyrene	170	50	ug/kg	5.0
Benzo(a)anthracene	78	50	ug/kg	6.2
Chrysene	100	50	ug/kg	5.9
Benzo(b)fluoranthene	110	50	ug/kg	7.8
Benzo(k)fluoranthene	ND	50	ug/kg	10
Benzo(a)pyrene	82	50	ug/kg	5.0
Indeno(1,2,3-cd)pyrene	160	50	ug/kg	5.1
Dibenzo(a,h)anthracene	100	50	ug/kg	5.5
Benzo(ghi)perylene	150	50	ug/kg	4.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	89	(27 - 110)
Terphenyl-d14	85	(21 - 130)
2-Fluorobiphenyl	84	(28 - 108)
2-Fluorophenol	79	(28 - 107)
Phenol-d5	77	(30 - 112)
2,4,6-Tribromophenol	94	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

GC Semivolatiles

Lot-Sample #...: C0H190588-018	**Work Order #...:** L5VR31AW	**Matrix.....:** SOLID
Date Sampled...: 08/18/10	**Date Received..:** 08/19/10	**MS Run #.....:**
Prep Date.....: 08/23/10	**Analysis Date..:** 08/28/10	
Prep Batch #...: 0235283	**Analysis Time..:** 21:18	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 66	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.6
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.2
Aroclor 1242	ND	24	ug/kg	4.0
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.5
Aroclor 1260	**240**	**24**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-019	**Work Order #...:**	L5VR41AW	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0235283	**Analysis Time..:**	09:24		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	65	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.5
Aroclor 1221	ND	24	ug/kg	4.5
Aroclor 1232	ND	24	ug/kg	4.0
Aroclor 1242	ND	24	ug/kg	3.8
Aroclor 1248	ND	24	ug/kg	2.2
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	**62**	**24**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	123	(35 - 140)
Decachlorobiphenyl	114	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-020	**Work Order #...:**	L5VR61A2	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	21:59		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	42	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.2
Aroclor 1221	ND	14	ug/kg	2.8
Aroclor 1232	ND	14	ug/kg	2.5
Aroclor 1242	ND	14	ug/kg	2.4
Aroclor 1248	ND	14	ug/kg	1.4
Aroclor 1254	ND	14	ug/kg	2.1
Aroclor 1260	ND	14	ug/kg	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-017	**Work Order #...:**	L5VR21AQ	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	19:36		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	76	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	34	ug/kg	5.1
Aroclor 1221	ND	34	ug/kg	6.5
Aroclor 1232	ND	34	ug/kg	5.9
Aroclor 1242	ND	34	ug/kg	5.6
Aroclor 1248	ND	34	ug/kg	3.2
Aroclor 1254	ND	34	ug/kg	4.9
Aroclor 1260	**190**	**34**	**ug/kg**	**4.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 140)
Decachlorobiphenyl	104	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-022	**Work Order #...:**	L5VR91AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	14:16		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	69	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	27	ug/kg	4.1
Aroclor 1221	ND	27	ug/kg	5.2
Aroclor 1232	ND	27	ug/kg	4.7
Aroclor 1242	ND	27	ug/kg	4.4
Aroclor 1248	ND	27	ug/kg	2.6
Aroclor 1254	ND	27	ug/kg	3.9
Aroclor 1260	**250**	**27**	**ug/kg**	**3.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	109	(35 - 140)
Decachlorobiphenyl	91	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-023	**Work Order #...:**	L5VTC1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	14:36		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	68	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.8
Aroclor 1221	ND	26	ug/kg	4.9
Aroclor 1232	ND	26	ug/kg	4.4
Aroclor 1242	ND	26	ug/kg	4.2
Aroclor 1248	ND	26	ug/kg	2.4
Aroclor 1254	ND	26	ug/kg	3.6
Aroclor 1260	**160**	**26**	**ug/kg**	**3.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	123	(35 - 140)
Decachlorobiphenyl	104	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-024	**Work Order #...:**	L5VTD1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	14:57		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	63	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.3
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.2
Aroclor 1260	ND	22	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	94	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-021	**Work Order #...:**	L5VR71AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	13:56		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	72	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	30	ug/kg	4.4
Aroclor 1221	ND	30	ug/kg	5.7
Aroclor 1232	ND	30	ug/kg	5.1
Aroclor 1242	ND	30	ug/kg	4.8
Aroclor 1248	ND	30	ug/kg	2.8
Aroclor 1254	ND	30	ug/kg	4.2
Aroclor 1260	**200**	**30**	**ug/kg**	**4.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	123	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-026	**Work Order #...:**	L5VTG1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	15:37		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	40	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.1
Aroclor 1221	ND	14	ug/kg	2.6
Aroclor 1232	ND	14	ug/kg	2.4
Aroclor 1242	ND	14	ug/kg	2.3
Aroclor 1248	ND	14	ug/kg	1.3
Aroclor 1254	ND	14	ug/kg	2.0
Aroclor 1260	ND	14	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	118	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-027	**Work Order #...:**	L5VTH1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	15:58		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	18	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	10	ug/kg	1.5
Aroclor 1221	ND	10	ug/kg	1.9
Aroclor 1232	ND	10	ug/kg	1.7
Aroclor 1242	ND	10	ug/kg	1.6
Aroclor 1248	ND	10	ug/kg	0.96
Aroclor 1254	ND	10	ug/kg	1.4
Aroclor 1260	ND	10	ug/kg	1.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-025	**Work Order #...:**	L5VTE1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	15:17		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	45	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.3
Aroclor 1221	ND	15	ug/kg	2.9
Aroclor 1232	ND	15	ug/kg	2.6
Aroclor 1242	ND	15	ug/kg	2.5
Aroclor 1248	ND	15	ug/kg	1.4
Aroclor 1254	ND	15	ug/kg	2.2
Aroclor 1260	ND	15	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	118	(35 - 140)
Decachlorobiphenyl	95	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-029	**Work Order #...:**	L5VTL1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	16:39		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	62	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.2
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.1
Aroclor 1260	ND	22	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	94	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-030	**Work Order #...:**	L5VTM1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	16:59		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	64	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.3
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.2
Aroclor 1260	ND	22	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	118	(35 - 140)
Decachlorobiphenyl	94	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-031	**Work Order #...:**	L5VTN1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	17:19		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	56	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	19	ug/kg	2.8
Aroclor 1221	ND	19	ug/kg	3.6
Aroclor 1232	ND	19	ug/kg	3.3
Aroclor 1242	ND	19	ug/kg	3.1
Aroclor 1248	ND	19	ug/kg	1.8
Aroclor 1254	ND	19	ug/kg	2.7
Aroclor 1260	ND	19	ug/kg	2.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-028	**Work Order #...:**	L5VTK1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	16:18		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	65	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.5
Aroclor 1221	ND	24	ug/kg	4.5
Aroclor 1232	ND	24	ug/kg	4.1
Aroclor 1242	ND	24	ug/kg	3.9
Aroclor 1248	ND	24	ug/kg	2.2
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	**30**	**24**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-033	**Work Order #...:**	L5VTT1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	18:00		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	70	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	28	ug/kg	4.1
Aroclor 1221	ND	28	ug/kg	5.3
Aroclor 1232	ND	28	ug/kg	4.8
Aroclor 1242	ND	28	ug/kg	4.5
Aroclor 1248	ND	28	ug/kg	2.6
Aroclor 1254	ND	28	ug/kg	3.9
Aroclor 1260	**230**	**28**	**ug/kg**	**3.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	119	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-034	**Work Order #...:**	L5VTV1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	18:21		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	67	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.8
Aroclor 1221	ND	25	ug/kg	4.9
Aroclor 1232	ND	25	ug/kg	4.4
Aroclor 1242	ND	25	ug/kg	4.1
Aroclor 1248	ND	25	ug/kg	2.4
Aroclor 1254	ND	25	ug/kg	3.6
Aroclor 1260	**140**	**25**	**ug/kg**	**3.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-04

GC Semivolatiles

Lot-Sample #...: C0H190588-035	**Work Order #...:** L5VTW1AD	**Matrix.....:** SOLID
Date Sampled...: 08/18/10	**Date Received..:** 08/19/10	**MS Run #.....:**
Prep Date.....: 08/23/10	**Analysis Date..:** 08/30/10	
Prep Batch #...: 0235284	**Analysis Time..:** 18:41	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 65	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.6
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.1
Aroclor 1242	ND	24	ug/kg	3.9
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	**120**	**24**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	117	(35 - 140)
Decachlorobiphenyl	103	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-032	**Work Order #...:**	L5VTP1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	17:40		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	71	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	28	ug/kg	4.2
Aroclor 1221	ND	28	ug/kg	5.4
Aroclor 1232	ND	28	ug/kg	4.8
Aroclor 1242	ND	28	ug/kg	4.6
Aroclor 1248	ND	28	ug/kg	2.7
Aroclor 1254	ND	28	ug/kg	4.0
Aroclor 1260	**170**	**28**	**ug/kg**	**4.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	119	(35 - 140)
Decachlorobiphenyl	102	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-038	**Work Order #...:**	L5VT11AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	21:04		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	45	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.3
Aroclor 1221	ND	15	ug/kg	2.9
Aroclor 1232	ND	15	ug/kg	2.6
Aroclor 1242	ND	15	ug/kg	2.5
Aroclor 1248	**2300**	**15**	**ug/kg**	**1.4**
Aroclor 1254	ND	15	ug/kg	2.2
Aroclor 1260	**2300**	**15**	**ug/kg**	**2.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	124	(35 - 140)
Decachlorobiphenyl	130	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-039	**Work Order #...:**	L5VT21AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	21:24		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	52	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	17	ug/kg	2.6
Aroclor 1221	ND	17	ug/kg	3.3
Aroclor 1232	ND	17	ug/kg	3.0
Aroclor 1242	ND	17	ug/kg	2.8
Aroclor 1248	**430**	**17**	**ug/kg**	**1.6**
Aroclor 1254	ND	17	ug/kg	2.5
Aroclor 1260	**250**	**17**	**ug/kg**	**2.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	130	(35 - 140)
Decachlorobiphenyl	113	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-040	**Work Order #...:**	L5VT31AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	21:44		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	51	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	17	ug/kg	2.5
Aroclor 1221	ND	17	ug/kg	3.2
Aroclor 1232	ND	17	ug/kg	2.9
Aroclor 1242	ND	17	ug/kg	2.8
Aroclor 1248	ND	17	ug/kg	1.6
Aroclor 1254	ND	17	ug/kg	2.4
Aroclor 1260	ND	17	ug/kg	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(35 - 140)
Decachlorobiphenyl	108	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-037	**Work Order #...:**	L5VT01AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	19:22		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	59	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	3.0
Aroclor 1221	ND	20	ug/kg	3.9
Aroclor 1232	ND	20	ug/kg	3.5
Aroclor 1242	ND	20	ug/kg	3.3
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.9
Aroclor 1260	**290**	**20**	**ug/kg**	**2.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	119	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-014	**Work Order #...:**	L5VRT1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	18:35		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.3 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	46	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.3
Aroclor 1221	ND	15	ug/kg	2.9
Aroclor 1232	ND	15	ug/kg	2.6
Aroclor 1242	ND	15	ug/kg	2.5
Aroclor 1248	**550**	**15**	**ug/kg**	**1.4**
Aroclor 1254	ND	15	ug/kg	2.2
Aroclor 1260	**800**	**15**	**ug/kg**	**2.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	112	(35 - 140)
Decachlorobiphenyl	102	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-015	**Work Order #...:**	L5VRX1AQ	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	18:55		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	52	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	17	ug/kg	2.6
Aroclor 1221	ND	17	ug/kg	3.3
Aroclor 1232	ND	17	ug/kg	3.0
Aroclor 1242	ND	17	ug/kg	2.8
Aroclor 1248	ND	17	ug/kg	1.6
Aroclor 1254	ND	17	ug/kg	2.5
Aroclor 1260	**770**	**17**	**ug/kg**	**2.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	116	(35 - 140)
Decachlorobiphenyl	108	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-016	**Work Order #...:**	L5VR01AW	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	19:16		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	60	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	21	ug/kg	3.1
Aroclor 1221	ND	21	ug/kg	3.9
Aroclor 1232	ND	21	ug/kg	3.5
Aroclor 1242	ND	21	ug/kg	3.4
Aroclor 1248	ND	21	ug/kg	2.0
Aroclor 1254	ND	21	ug/kg	2.9
Aroclor 1260	ND	21	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-013	**Work Order #...:**	L5VRR1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	18:15		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	63	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.2
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.1
Aroclor 1260	**380**	**22**	**ug/kg**	**3.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-002	**Work Order #...:**	L5VQ81AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	14:31		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	33	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	13	ug/kg	1.9
Aroclor 1221	ND	13	ug/kg	2.4
Aroclor 1232	ND	13	ug/kg	2.1
Aroclor 1242	ND	13	ug/kg	2.0
Aroclor 1248	ND	13	ug/kg	1.2
Aroclor 1254	ND	13	ug/kg	1.8
Aroclor 1260	ND	13	ug/kg	1.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	109	(35 - 140)
Decachlorobiphenyl	81	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-001	**Work Order #...:**	L5VQ71AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	14:10		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	47	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	16	ug/kg	2.3
Aroclor 1221	ND	16	ug/kg	3.0
Aroclor 1232	ND	16	ug/kg	2.7
Aroclor 1242	ND	16	ug/kg	2.5
Aroclor 1248	ND	16	ug/kg	1.5
Aroclor 1254	ND	16	ug/kg	2.2
Aroclor 1260	ND	16	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	104	(35 - 140)
Decachlorobiphenyl	94	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-004	**Work Order #...:**	L5VRD1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	15:11		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	33	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.8
Aroclor 1221	ND	12	ug/kg	2.4
Aroclor 1232	ND	12	ug/kg	2.1
Aroclor 1242	ND	12	ug/kg	2.0
Aroclor 1248	ND	12	ug/kg	1.2
Aroclor 1254	ND	12	ug/kg	1.8
Aroclor 1260	**280**	**12**	**ug/kg**	**1.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	121	(35 - 140)
Decachlorobiphenyl	68	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-005	**Work Order #...:**	L5VRE1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	15:32		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	48	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	16	ug/kg	2.3
Aroclor 1221	ND	16	ug/kg	3.0
Aroclor 1232	ND	16	ug/kg	2.7
Aroclor 1242	ND	16	ug/kg	2.5
Aroclor 1248	ND	16	ug/kg	1.5
Aroclor 1254	ND	16	ug/kg	2.2
Aroclor 1260	**150**	**16**	**ug/kg**	**2.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-006	**Work Order #...:**	L5VRG1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	15:52		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	40	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.1
Aroclor 1221	ND	14	ug/kg	2.6
Aroclor 1232	ND	14	ug/kg	2.4
Aroclor 1242	ND	14	ug/kg	2.2
Aroclor 1248	ND	14	ug/kg	1.3
Aroclor 1254	ND	14	ug/kg	2.0
Aroclor 1260	ND	14	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(35 - 140)
Decachlorobiphenyl	100	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-003	**Work Order #...:**	L5VQ91AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	14:51		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	30	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.8
Aroclor 1221	ND	12	ug/kg	2.3
Aroclor 1232	ND	12	ug/kg	2.0
Aroclor 1242	ND	12	ug/kg	1.9
Aroclor 1248	ND	12	ug/kg	1.1
Aroclor 1254	ND	12	ug/kg	1.7
Aroclor 1260	**73**	**12**	**ug/kg**	**1.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	104	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-008	**Work Order #...:**	L5VRJ1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	16:33		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	68	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.2
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**610**	**26**	**ug/kg**	**3.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(35 - 140)
Decachlorobiphenyl	103	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-02

GC Semivolatiles

Lot-Sample #...:	C0H190588-009	**Work Order #...:**	L5VRK1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	16:53		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	66	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.7
Aroclor 1221	ND	25	ug/kg	4.7
Aroclor 1232	ND	25	ug/kg	4.3
Aroclor 1242	ND	25	ug/kg	4.1
Aroclor 1248	ND	25	ug/kg	2.4
Aroclor 1254	ND	25	ug/kg	3.5
Aroclor 1260	**290**	**25**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	118	(35 - 140)
Decachlorobiphenyl	96	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-010	**Work Order #...:**	L5VRL1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	17:14		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	53	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	18	ug/kg	2.6
Aroclor 1221	ND	18	ug/kg	3.4
Aroclor 1232	ND	18	ug/kg	3.0
Aroclor 1242	ND	18	ug/kg	2.9
Aroclor 1248	ND	18	ug/kg	1.7
Aroclor 1254	ND	18	ug/kg	2.5
Aroclor 1260	**12 J**	**18**	**ug/kg**	**2.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	120	(35 - 140)
Decachlorobiphenyl	107	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-007	**Work Order #...:**	L5VRH1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	16:13		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	73	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	31	ug/kg	4.7
Aroclor 1221	ND	31	ug/kg	6.0
Aroclor 1232	ND	31	ug/kg	5.4
Aroclor 1242	ND	31	ug/kg	5.1
Aroclor 1248	ND	31	ug/kg	3.0
Aroclor 1254	ND	31	ug/kg	4.5
Aroclor 1260	**720**	**31**	**ug/kg**	**4.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	106	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP1-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-011	**Work Order #...:**	L5VRM1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	17:34		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	68	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.2
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**380**	**26**	**ug/kg**	**3.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(35 - 140)
Decachlorobiphenyl	106	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP2-04

GC Semivolatiles

Lot-Sample #...:	C0H190588-012	**Work Order #...:**	L5VRP1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	17:54		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	63	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.3
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.7
Aroclor 1248	ND	23	ug/kg	2.1
Aroclor 1254	ND	23	ug/kg	3.2
Aroclor 1260	ND	23	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 140)
Decachlorobiphenyl	102	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP3-SS

GC Semivolatiles

Lot-Sample #...:	C0H190588-036	**Work Order #...:**	L5VTX1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/30/10		
Prep Batch #...:	0235284	**Analysis Time..:**	19:01		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	66	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.7
Aroclor 1221	ND	25	ug/kg	4.7
Aroclor 1232	ND	25	ug/kg	4.2
Aroclor 1242	ND	25	ug/kg	4.0
Aroclor 1248	ND	25	ug/kg	2.3
Aroclor 1254	ND	25	ug/kg	3.5
Aroclor 1260	**20 J**	**25**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Appendix C

Support Documentation

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H190588

Sample Receiving:
TestAmerica's Pittsburgh laboratory received one sample on August 19, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, several samples were analyzed at a dilution. Several samples had the surorgates diluted out.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

Metals:
Several samples were over the instruments linear range for SEM zinc and required a dilution.

The serial dilution of sample SD-102-SS (total) was outside of the percent difference control limits for silver, beryllium, and antimony. The results were flagged with an "E" qualifier.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spike and matrix spike duplicate of sample SD-92-SS recovered outside of the control limits for antimony and lead.

The matrix spike and matrix spike duplicate of sample SD-102-SS recovered outside of the control limits for antimony.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H190588

Metals (cont):
The matrix spike of sample SS-102-SS recovered outside of the control limits for chromium and zinc.

For the matrix spike and matrix spike duplicate of sample SD-102-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154233
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of _____
20251 Century Blvd Suite 200	301 528-3922 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Hannaway		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sediment Sampling, Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals + Hg	PAH	PCB	Special Instructions/ Conditions of Receipt
SD-92-SS	8/17/10	1510			X		X						X	X	X	
SD-92-01		1515			X		X						X	X	X	
SD-93-SS		1555			X		X						X	X	X	
SD-93-01		1600			X		X						X	X	X	
SD-93-02		1605			X		X						X	X	X	
SD-93-04		1610			X		X						X	X	X	
SD-95-SS		1655			X		X						X	X	X	
SD-95-01		1700			X		X						X	X	X	
SD-95-02		1705			X		X						X	X	X	
SD-95-04		1710			X		X						X	X	X	
SD-Dup1-01	8/17/10	1201			X		X						X	X	X	
SD-Dup2-04	8/18/10	1110			X		X						X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time
1. Relinquished By	8/18/10	1600
2. Relinquished By	8/19/10	1200
3. Relinquished By		

	Date	Time
1. Received By	8/18/10	1600
2. Received By		
3. Received By	8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA TECH	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154234
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301 528 3000	Lab Number:	Page 2 of _____
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Armitage	Lab Contact:	
Project Name and Location (State): MRC Sediment Samp. Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: PP metals	PAH	PCB	TOC	AVS	SEM	PSA	PAH	Special Instructions/ Conditions of Receipt
SD-87-SS	8/18/10	0855			X		X						X	X	X	X	X	X			
SD-87-01	8/18/10	0857											X	X	X	X	X	X			
SD-87-02		0859											X	X	X	[redacted]	X	X			
SD-87-04		0901											X	X	X		X	X			
SD-101-SS		0955											X	X	X	X	X	X			
SD-101-01		0957											X	X	X	X	X	X			
SD-101-02		0959											X	X	X	X	X	X			
SD-101-04		1001											X	X	X		X	X			
SD-102-SS		1030											X	X	X	[redacted]					
SD-102-01		1032											X	X	X	[redacted]					
SD-102-02		1034											X	X	X	[redacted]					
SD-102-04	8/18/10	1036			X		X						X	X	X	[redacted]					

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date: 8/18/10	Time: 1600	1. Received By	Date: 8/18/10	Time: 1600
2. Relinquished By	Date: 8/18/10	Time: 1700	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/19/10	Time: 1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

COH190588

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA TECH	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154235
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3027 301-528-3060	Lab Number:	Page 3 of ___
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Provenzano	Lab Contact:	
Project Name and Location (State): MRC Sed. sampling, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-103-SS	8/18/10	1233											X	X	X	
SD-103-01		1235											X	X	X	
SD-103-02		1237											X	X	X	
SD-104-SS		1320											X	X	X	
SD-104-01		1322											X	X	X	
SD-104-02		1324											X	X	X	
SD-104-04		1326											X	X	X	
SD-105-SS		1428											X	X	X	
SD-105-01		1430											X	X	X	
SD-105-02		1432											X	X	X	
SD-105-04		1434											X	X	X	
[redacted]-SD-Dup 3-SS	8/18/10	1215											X	X	X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date 8/18/10	Time 1600	1. Received By	Date 8/18/10	Time 1600
2. Relinquished By	Date 8/18/10	Time 1700	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date 8/19/10	Time 1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike Martin		154239
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 4 of _____
20251 Century Blvd. Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Apanavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Sampling. Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: pp metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-86-SS	8/18/10	1520			X								X	X	X	
SD-86-01	↓	1522			X								X	X	X	
SD-86-02	↓	1524			X								X	X	X	
SD-86-04	8/18/10	1526			X								X	X	X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.		8/18/10	1600		8/18/10	1600
2.		8/18/10	1700			
3.					8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech NUS Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/19/10

Coolers Opened and Unpacked on: 8/19/10 By: DLF
(Signature)

TestAmerica Pittsburgh Lot Number: _____

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?			✓
9.	Were all bottles sealed in separate plastic bags?		✓	
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?			✓
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1. 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

TestAmerica Pittsburgh

Cooler Receipt Form

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH≥12	OG TPHC PH<2	PHEN PH<2	SULF PH≥12	TOC PH<2	TOX PH<2	VOA P/UP	hardness PH<2	Residual Cl	

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	3.1°	6
2	2.1°	8

Sample	Lot Number**

*Acceptable Temperature Range: < 0-6 °C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

X:\Forms\Cooler Receipt Form_updated 102010.DOC
Rev. 1, 01/20/2010

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-105-04	C0H190588035	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-SS	C0H190588037	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-SS	C0H190588037	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-04	C0H190588040	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-04	C0H190588040	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-02	C0H190588039	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-02	C0H190588039	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-01	C0H190588038	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-86-01	C0H190588038	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-SS	C0H190588032	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-87-02	C0H190588015	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-04	C0H190588035	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-02	C0H190588034	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-02	C0H190588034	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-01	C0H190588033	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-105-01	C0H190588033	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-104-SS	C0H190588028	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-104-SS	C0H190588028	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-105-SS	C0H190588032	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-92-SS	C0H190588001	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-95-01	C0H190588008	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-SS	C0H190588003	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-SS	C0H190588003	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-04	C0H190588006	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-04	C0H190588006	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-02	C0H190588005	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-02	C0H190588005	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-93-01	C0H190588004	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-87-01	C0H190588014	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-92-SS	C0H190588001	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-87-01	C0H190588014	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-92-01	C0H190588002	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-92-01	C0H190588002	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-87-SS	C0H190588013	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-87-SS	C0H190588013	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-87-04	C0H190588016	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-87-04	C0H190588016	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-87-02	C0H190588015	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-104-02	C0H190588030	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-93-01	C0H190588004	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-95-SS	C0H190588007	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-104-04	C0H190588031	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-101-02	C0H190588019	SUR	08/18/2010	08/23/2010	08/26/2010	5	3	8
SIM	UG/KG	SD-101-02	C0H190588019	NM	08/18/2010	08/23/2010	08/26/2010	5	3	8
SIM	UG/KG	SD-101-01	C0H190588018	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-101-01	C0H190588018	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-95-02	C0H190588009	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-95-02	C0H190588009	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-101-04	C0H190588020	SUR	08/18/2010	08/23/2010	08/26/2010	5	3	8
SIM	UG/KG	SD-95-04	C0H190588010	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-101-SS	C0H190588017	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-95-SS	C0H190588007	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-DUP1-01	C0H190588011	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-DUP1-01	C0H190588011	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-DUP2-04	C0H190588012	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-DUP2-04	C0H190588012	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-DUP3-SS	C0H190588036	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-DUP3-SS	C0H190588036	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-95-01	C0H190588008	SUR	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-95-04	C0H190588010	NM	08/17/2010	08/23/2010	08/25/2010	6	2	8
SIM	UG/KG	SD-102-SS	C0H190588021	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-104-02	C0H190588030	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-104-01	C0H190588029	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-104-01	C0H190588029	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-103-SS	C0H190588025	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-103-SS	C0H190588025	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-103-02	C0H190588027	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-103-02	C0H190588027	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-101-04	C0H190588020	NM	08/18/2010	08/23/2010	08/26/2010	5	3	8
SIM	UG/KG	SD-103-01	C0H190588026	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-104-04	C0H190588031	NM	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-102-SS	C0H190588021	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-102-04	C0H190588024	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-102-04	C0H190588024	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-102-02	C0H190588023	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-102-02	C0H190588023	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-102-01	C0H190588022	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-102-01	C0H190588022	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
SIM	UG/KG	SD-101-SS	C0H190588017	SUR	08/18/2010	08/23/2010	08/25/2010	5	2	7
SIM	UG/KG	SD-103-01	C0H190588026	SUR	08/18/2010	08/23/2010	08/24/2010	5	1	6
PCB	UG/KG	SD-87-04	C0H190588016	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-93-SS	C0H190588003	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-86-04	C0H190588040	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-86-SS	C0H190588037	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-87-02	C0H190588015	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-87-SS	C0H190588013	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-92-01	C0H190588002	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-92-SS	C0H190588001	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-93-01	C0H190588004	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-87-01	C0H190588014	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-93-04	C0H190588006	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-105-SS	C0H190588032	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-95-01	C0H190588008	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-95-02	C0H190588009	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-95-04	C0H190588010	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-95-SS	C0H190588007	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-DUP1-01	C0H190588011	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-DUP2-04	C0H190588012	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-DUP3-SS	C0H190588036	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-93-02	C0H190588005	NM	08/17/2010	08/23/2010	08/28/2010	6	5	11
PCB	UG/KG	SD-103-SS	C0H190588025	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-101-02	C0H190588019	NM	08/18/2010	08/23/2010	09/01/2010	5	9	14
PCB	UG/KG	SD-101-04	C0H190588020	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-101-SS	C0H190588017	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-102-01	C0H190588022	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-102-02	C0H190588023	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-102-04	C0H190588024	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-102-SS	C0H190588021	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-86-02	C0H190588039	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-103-02	C0H190588027	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-86-01	C0H190588038	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-104-01	C0H190588029	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-104-02	C0H190588030	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-104-04	C0H190588031	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-104-SS	C0H190588028	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-105-01	C0H190588033	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-105-02	C0H190588034	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-105-04	C0H190588035	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12
PCB	UG/KG	SD-101-01	C0H190588018	NM	08/18/2010	08/23/2010	08/28/2010	5	5	10
PCB	UG/KG	SD-103-01	C0H190588026	NM	08/18/2010	08/23/2010	08/30/2010	5	7	12

METHODS SUMMARY

C0H190588

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H190588

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5VQ7	001	SD-92-SS	08/17/10	15:10
L5VQ8	002	SD-92-01	08/17/10	15:15
L5VQ9	003	SD-93-SS	08/17/10	15:55
L5VRD	004	SD-93-01	08/17/10	16:00
L5VRE	005	SD-93-02	08/17/10	16:05
L5VRG	006	SD-93-04	08/17/10	16:10
L5VRH	007	SD-95-SS	08/17/10	16:55
L5VRJ	008	SD-95-01	08/17/10	17:00
L5VRK	009	SD-95-02	08/17/10	17:05
L5VRL	010	SD-95-04	08/17/10	17:10
L5VRM	011	SD-DUP1-01	08/17/10	12:01
L5VRP	012	SD-DUP2-04	08/18/10	11:10
L5VRR	013	SD-87-SS	08/18/10	08:55
L5VRT	014	SD-87-01	08/18/10	08:57
L5VRX	015	SD-87-02	08/18/10	08:59
L5VR0	016	SD-87-04	08/18/10	09:01
L5VR2	017	SD-101-SS	08/18/10	09:55
L5VR3	018	SD-101-01	08/18/10	09:57
L5VR4	019	SD-101-02	08/18/10	09:59
L5VR6	020	SD-101-04	08/18/10	10:01
L5VR7	021	SD-102-SS	08/18/10	10:30
L5VR9	022	SD-102-01	08/18/10	10:32
L5VTC	023	SD-102-02	08/18/10	10:34
L5VTD	024	SD-102-04	08/18/10	10:36
L5VTE	025	SD-103-SS	08/18/10	12:33
L5VTG	026	SD-103-01	08/18/10	12:35
L5VTH	027	SD-103-02	08/18/10	12:37
L5VTK	028	SD-104-SS	08/18/10	13:20
L5VTL	029	SD-104-01	08/18/10	13:22
L5VTM	030	SD-104-02	08/18/10	13:24
L5VTN	031	SD-104-04	08/18/10	13:26
L5VTP	032	SD-105-SS	08/18/10	14:28
L5VTT	033	SD-105-01	08/18/10	14:30
L5VTV	034	SD-105-02	08/18/10	14:32
L5VTW	035	SD-105-04	08/18/10	14:34
L5VTX	036	SD-DUP3-SS	08/18/10	12:15

(Continued on next page)

SAMPLE SUMMARY

C0H190588

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5VT0	037	SD-86-SS	08/18/10	15:20
L5VT1	038	SD-86-01	08/18/10	15:22
L5VT2	039	SD-86-02	08/18/10	15:24
L5VT3	040	SD-86-04	08/18/10	15:26

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-95-01	UNITS	SD-DUP1-01	RPD	D
PAH	ACENAPHTHENE	24 J	UG/KG	30 J	22.22	6.00
PAH	ACENAPHTHYLENE	50	UG/KG	62	21.43	12.00
PAH	ANTHRACENE	89	UG/KG	100	11.64	11.00
PAH	BENZO(A)ANTHRACENE	330	UG/KG	320	3.08	10.00
PAH	BENZO(A)PYRENE	350	UG/KG	360	2.82	10.00
PAH	BENZO(B)FLUORANTHENE	580	UG/KG	640	9.84	60.00
PAH	BENZO(G,H,I)PERYLENE	360	UG/KG	390	8.00	30.00
PAH	CHRYSENE	360	UG/KG	370	2.74	10.00
PAH	DIBENZO(A,H)ANTHRACENE	140	UG/KG	150	6.90	10.00
PAH	FLUORANTHENE	470	UG/KG	480	2.11	10.00
PAH	FLUORENE	34 J	UG/KG	33 J	2.99	1.00
PAH	INDENO(1,2,3-CD)PYRENE	310	UG/KG	330	6.25	20.00
PAH	NAPHTHALENE	50	UG/KG	50	0.00	0.00
PAH	PHENANTHRENE	220	UG/KG	210	4.65	10.00
PAH	PYRENE	630	UG/KG	610	3.23	20.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-102-04	UNITS	SD-DUP2-04	RPD	D
PAH	ACENAPHTHYLENE	7.9 J	UG/KG	ND	200.00	7.90
PAH	ANTHRACENE	9 J	UG/KG	10 J	10.53	1.00
PAH	BENZO(A)ANTHRACENE	18 J	UG/KG	24 J	28.57	6.00
PAH	BENZO(A)PYRENE	21 J	UG/KG	14 J	40.00	7.00
PAH	BENZO(B)FLUORANTHENE	46	UG/KG	17 J	92.06	29.00
PAH	BENZO(G,H,I)PERYLENE	84	UG/KG	ND	200.00	84.00
PAH	BENZO(K)FLUORANTHENE	ND	UG/KG	16 J	200.00	16.00
PAH	CHRYSENE	32 J	UG/KG	11 J	97.67	21.00
PAH	FLUORANTHENE	40 J	UG/KG	27 J	38.81	13.00
PAH	FLUORENE	8.4 J	UG/KG	ND	200.00	8.40
PAH	INDENO(1,2,3-CD)PYRENE	100	UG/KG	ND	200.00	100.00
PAH	NAPHTHALENE	21 J	UG/KG	12 J	54.55	9.00
PAH	PHENANTHRENE	38 J	UG/KG	22 J	53.33	16.00
PAH	PYRENE	41 J	UG/KG	27 J	41.18	14.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-104-SS	UNITS	SD-DUP3-SS	RPD	D
PAH	ACENAPHTHENE	ND	UG/KG	13 J	200.00	13.00
PAH	ACENAPHTHYLENE	15 J	UG/KG	16 J	6.45	1.00
PAH	ANTHRACENE	26	UG/KG	37 J	34.92	11.00
PAH	BENZO(A)ANTHRACENE	60	UG/KG	78	26.09	18.00
PAH	BENZO(A)PYRENE	56	UG/KG	82	37.68	26.00
PAH	BENZO(B)FLUORANTHENE	130	UG/KG	110	16.67	20.00
PAH	BENZO(G,H,I)PERYLENE	71	UG/KG	150	71.49	79.00
PAH	CHRYSENE	71	UG/KG	100	33.92	29.00
PAH	DIBENZO(A,H)ANTHRACENE	41	UG/KG	100	83.69	59.00
PAH	FLUORANTHENE	130	UG/KG	150	14.29	20.00
PAH	FLUORENE	21	UG/KG	36 J	52.63	15.00
PAH	INDENO(1,2,3-CD)PYRENE	72	UG/KG	160	75.86	88.00
PAH	NAPHTHALENE	42	UG/KG	71	51.33	29.00
PAH	PHENANTHRENE	79	UG/KG	130	48.80	51.00
PAH	PYRENE	110	UG/KG	170	42.86	60.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-95-01	UNITS	SD-DUP1-01	RPD	D
PEST/PCB	AROCLOR-1260	610	UG/KG	380 J	46.46	230.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-104-SS	UNITS	SD-DUP3-SS	RPD	D
PEST/PCB	AROCLOR-1260	30	UG/KG	20 J	40.00	10.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0604DF1 DFTPP Injection Date: 06/04/10

Instrument ID: 731 DFTPP Injection Time: 0711

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.5
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Mass 69 relative abundance	42.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	40.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	24.3
365	Greater than 1.0% of mass 198	2.64
441	Present, but less than mass 443	7.9
442	40.0 - 99.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	9.8 (18.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0.4	SSTD0.4	V0604IC1	06/04/10	0727
02	SSTD2.0	SSTD2.0	V0604IC2	06/04/10	0747
03	SSTD4.0	SSTD4.0	V0604IC3	06/04/10	0808
04	SSTD10	SSTD10	V0604IC4	06/04/10	0829
05	SSTD20	SSTD20	V0604IC5	06/04/10	0850
06	SSTD40	SSTD40	V0604IC6	06/04/10	0911
07	SSTD60	SSTD60	V0604IC7	06/04/10	0932
08	SSTD80	SSTD80	V0604IC8	06/04/10	0953
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.29155	0.32808	0.32889	0.35242	0.36130	0.37216						
	0.36701	0.38264					AVRG		0.34801		8.61425	
49 Benzoic Acid	+++++	0.13397	0.15895	0.17115	0.19333	0.19483						
	0.19593	0.18882					AVRG		0.17671		13.25932	
50 1,2,4-Trichlorobenzene	0.44560	0.41197	0.40508	0.42154	0.44804	0.44900						
	0.44791	0.46892					AVRG		0.43726		5.01173	
51 Naphthalene	1.11327	1.03834	1.04638	1.06512	1.11311	1.15604						
	1.17490	1.25449					AVRG		1.12020		6.54192	
52 4-Chloroaniline	0.35163	0.40134	0.40585	0.41230	0.43819	0.45092						
	0.45102	0.47796					AVRG		0.42365		9.26491	

(1 - 364)

C0H190588

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
59 4-Chloro-3-Methylphenol	0.30085	0.28790	0.32530	0.31344	0.34200	0.33975						
	0.33910	0.34740					AVRG		0.32447		6.68981	
60 p-Phenylene diamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
61 Safrole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
62 2-Methylnaphthalene	0.65987	0.70775	0.67174	0.71813	0.73548	0.77187						
	0.77493	0.83066					AVRG		0.73380		7.77178	
63 1-Methylnaphthalene	0.65531	0.64127	0.66656	0.66946	0.70925	0.74232						
	0.73543	0.79562					AVRG		0.70190		7.56629	
64 Hexachlorocyclopentadiene	+++++	24171	47903	140586	307034	578980						
	892422	1282765					QUAD	0.12884	2.01602	-0.02173	0.99977	
65 1,2,4,5-Tetrachlorobenzene	0.60856	0.74627	0.69042	0.74566	0.74387	0.79189						
	0.77210	0.79573					AVRG		0.73681		8.36156	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	0.21453	0.23308	0.22598	0.26203	0.26612	0.28241						
	0.27868	0.27821					AVRG		0.25513		10.45890	
79 Acenaphthylene	1.57946	1.56872	1.58694	1.56688	1.59435	1.71821						
	1.73038	1.78358					AVRG		1.64106		5.34636	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	+++++	0.24526	0.23923	0.26426	0.27325	0.27948						
	0.27230	0.27145					AVRG		0.26361		5.82301	
82 Acenaphthene	1.02067	1.01984	1.01431	1.05707	1.06299	1.12184						
	1.12807	1.17606					AVRG		1.07511		5.59922	
83 2,4-Dinitrophenol	5945	15425	53358	106075	175947	220429						
	351373	485102					QUAD	0.24015	5.15773	-0.11946	0.99885	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
92 2-Naphthylamine	0.44999	0.49344	0.50208	0.50685	0.48561	0.48147						
	0.44492	0.43667					AVRG		0.47513		5.75941	
93 Diethylphthalate	1.15510	1.29536	1.19958	1.23522	1.26497	1.29925						
	1.32167	1.32939					AVRG		1.26257		4.88697	
94 Fluorene	1.39925	1.22455	1.29664	1.33785	1.34802	1.47652						
	1.53382	1.62228					AVRG		1.40487		9.35905	
95 4-Chlorophenyl-phenylether	0.80999	0.74364	0.74028	0.74888	0.78822	0.82237						
	0.82969	0.85167					AVRG		0.79184		5.46587	
96 4-Nitroaniline	0.19189	0.26562	0.26484	0.25590	0.27417	0.30776						
	0.29501	0.31139					AVRG		0.27082		14.04167	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	0.09881	0.12599	0.14045	0.14020	0.14982						
	0.15224	0.15345					AVRG		0.13728		14.16430	

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INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	15003	35612	97319	192411	316223	398001						
	625719	896311					QUAD	0.16356	5.17930	-0.11509	0.99935	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.00480	1.14264	1.11199	1.17572	1.18241	1.18138						
	1.23415	1.23307					AVRG		1.15827		6.42043	
116 Anthracene	1.05201	1.18076	1.12841	1.21882	1.19107	1.22734						
	1.26697	1.25934					AVRG		1.19059		6.01283	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.86998	0.96974	0.96784	0.96341	0.97641	0.97372						
	1.02994	0.99454					AVRG		0.96820		4.66430	
120 Di-n-Butylphthalate	0.86186	1.02009	1.10413	1.14220	1.20161	1.21043						
	1.26296	1.23445					AVRG		1.12972		11.82767	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.26157	1.29249	1.32966	1.32856	1.37788	1.39686						
	1.46781	1.42899					AVRG		1.36048		5.13879	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\8270ll.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
124 Benzidine	+++++	+++++	40351	143236	357935	788305						
	1280605	1775699					QUAD	0.37300	3.14176	-0.06554	0.99922	
125 Pyrene	1.02574	1.09780	1.12184	1.16541	1.17507	1.14596						
	1.18337	1.21808					AVRG		1.14166		5.23791	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
130 Famphur	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.27631	0.38682	0.39782	0.43034	0.43034	0.42612	0.44859	0.45286	AVRG		0.40615		14.06845	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	+++++	0.31480	0.37288	0.39483	0.42824	0.45493	0.47542	0.47486	AVRG		0.41657		14.27206	
136 Benzo(a)Anthracene	1.07822	1.17092	1.15159	1.18757	1.13322	1.17048	1.20643	1.23036	AVRG		1.16610		4.00554	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
137 Chrysene	0.98456	1.12098	1.14919	1.12181	1.14506	1.12478						
	1.22015	1.23644					AVRG		1.13787		6.71645	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.44441	0.52446	0.55231	0.59289	0.62301	0.61572						
	0.63678	0.64600					AVRG		0.57945		11.86850	
140 Di-n-octylphthalate	+++++	0.75255	0.81084	0.93467	1.02772	1.02719						
	1.00144	1.05257					AVRG		0.94385		12.49767	
141 Benzo(b)fluoranthene	1.24225	1.06996	1.14476	1.30795	1.35668	1.28608						
	1.29812	1.47684					AVRG		1.27283		9.81242	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	1.03562	1.37461	1.39261	1.40862	1.43393	1.50040						
	1.39934	1.33943					AVRG		1.36057		10.24515	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
143 7,12-dimethylbenz[a]anthracen	0.48215	0.58640	0.59226	0.62697	0.64700	0.64250	0.62276	0.64033	AVRG		0.60505		9.01275	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	1.06881	1.09239	1.06286	1.08262	1.19586	1.17504	1.15486	1.18017	AVRG		1.12658		4.89857	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	27999	163296	330803	877322	1954853	3970013	6550756	8427755	QUAD	0.09448	0.68724	0.00200	0.99955	
150 Dibenz(a,h)anthracene	17199	132744	264678	719700	1590355	3196126	5211060	6784124	QUAD	0.08443	0.85944	0.00292	0.99982	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\8270ll.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
151 Benzo(g,h,i)perylene	22098	150385	299801	793288	1705188	3458604						
	5604086	7281551					QUAD	0.07437	0.79454	0.00312	0.99981	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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C0H190588

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0824DF1 DFTPP Injection Date: 08/24/10

Instrument ID: 731 DFTPP Injection Time: 0657

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.6
68	Less than 2.0% of mass 69	0.6 (1.0)1
69	Mass 69 relative abundance	61.5
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	49.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	8.5
275	10.0 - 30.0% of mass 198	28.7
365	Greater than 1.0% of mass 198	2.68
441	Present, but less than mass 443	9.2
442	40.0 - 99.0% of mass 198	57.2
443	17.0 - 23.0% of mass 442	11.2 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08240CC	08/24/10	0713
02	INTRA-LAB BL	L51311AA	V0824020	08/24/10	0902
03	INTRA-LAB CH	L51311AC	V0824021	08/24/10	1157
04	INTRA-LAB CH	L51311AD	V0824022	08/24/10	1219
05	SD-102-SS	L5VR71AC	V0824023	08/24/10	1538
06	SD-102-01	L5VR91AC	V0824024	08/24/10	1600
07	SD-102-02	L5VTC1AC	V0824025	08/24/10	1622
08	SD-102-04	L5VTD1AC	V0824026	08/24/10	1644
09	SD-103-SS	L5VTE1AC	V0824027	08/24/10	1706
10	SD-103-01	L5VTG1AC	V0824028	08/24/10	1728
11	SD-103-02	L5VTH1AC	V0824029	08/24/10	1750
12	SD-104-SS	L5VTK1AC	V0824030	08/24/10	1812
13	SD-104-01	L5VTL1AC	V0824031	08/24/10	1834
14	SD-104-02	L5VTM1AC	V0824032	08/24/10	1857
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 24-AUG-2010 07:13
Lab File ID: V08240CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082410.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	3.30271	0.43675	0.010	17.43216	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.62705	0.62705	0.010	-1.88405	25.00000	Averaged	
9 Pyridine	1.20894	1.35510	1.35510	0.010	-12.08947	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.81893	0.81893	0.010	-7.82076	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.12317	0.82044	0.010	-28.07937	25.00000	Quadratic	<-
21 Aniline	1.78238	1.76837	1.76837	0.010	0.78609	25.00000	Averaged	
22 Phenol	1.78991	1.72255	1.72255	0.010	3.76374	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.17350	1.17350	0.010	-4.78753	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.27552	1.27552	0.010	6.62550	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.62920	1.62920	0.010	4.14690	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.62553	1.62553	0.010	3.97566	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.56387	1.56387	0.010	2.93664	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.69834	0.69834	0.010	15.94174	25.00000	Averaged	
30 2-Methylphenol	1.23988	1.21592	1.21592	0.010	1.93221	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.56126	1.56126	0.010	-13.83707	25.00000	Averaged	
37 Acetophenone	1.79055	1.93033	1.93033	0.010	-7.80665	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.03552	1.03552	0.050	-8.21781	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.18515	1.18515	0.010	11.20706	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.70345	0.70345	0.010	2.70011	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.50508	0.50508	0.010	-13.52807	25.00000	Averaged	
41 Isophorone	0.69909	0.75691	0.75691	0.010	-8.26992	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.18552	0.18552	0.010	7.20816	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.45181	0.45181	0.010	-10.66807	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.41408	0.41408	0.010	-1.99463	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.33711	0.33711	0.010	3.13122	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.17640	0.17640	0.010	0.17815	25.00000	Averaged	
50 1,2,4-Trichlorobenzene	0.43726	0.39513	0.39513	0.010	9.63333	25.00000	Averaged	
51 Naphthalene	1.12020	1.01844	1.01844	0.010	9.08458	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.38589	0.38589	0.010	8.91293	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.34131	0.34131	0.010	3.11564	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.28656	0.28656	0.010	13.56654	20.00000	Averaged	
208 Caprolactam	0.08094	0.09082	0.09082	0.010	-12.21295	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.34034	0.34034	0.010	-4.89182	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.68549	0.68549	0.010	6.58446	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.66410	0.66410	0.010	5.38507	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	4.59019	0.44246	0.050	-14.75486	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.44496	0.44496	0.010	-4.05373	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.46600	0.46600	0.010	0.29390	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.46787	1.46787	0.010	1.31918	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.25338	1.25338	0.010	-3.62031	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.46618	0.46618	0.010	-42.36332	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.35606	1.35606	0.010	-7.61576	25.00000	Averaged	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 24-AUG-2010 07:13
Lab File ID: V08240CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082410.b\827011.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.30238	0.30238	0.010	-18.51808	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.64685	1.64685	0.010	-0.35263	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.26974	0.26974	0.010	-2.32861	25.00000	Averaged	
82 Acenaphthene	1.07511	1.14208	1.14208	0.010	-6.22964	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	11.51792	0.18708	0.050	-15.17916	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.34142	0.34142	0.050	-36.97414	25.00000	Averaged	<-
86 Dibenzofuran	1.69916	1.72925	1.72925	0.010	-1.77107	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.41848	0.41848	0.010	-16.58927	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.43797	0.43797	0.010	-1.78607	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.44518	0.44518	0.010	0.15453	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.48291	0.48291	0.010	-1.63634	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.53653	1.53653	0.010	-21.69867	25.00000	Averaged	
94 Fluorene	1.40487	1.43790	1.43790	0.010	-2.35133	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.74115	0.74115	0.010	6.40142	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.30827	0.30827	0.010	-13.82596	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.14684	0.14684	0.010	-6.96259	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.51787	0.51787	0.010	1.92831	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	0.95966	0.95966	0.010	-17.84934	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.27757	0.25161	0.25161	0.010	9.35428	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.26714	0.26714	0.010	2.96462	25.00000	Averaged	
210 Atrazine	0.11960	0.10226	0.10226	0.010	14.49815	25.00000	Averaged	
111 Pentachlorophenol	10.00000	10.29878	0.17443	0.010	-2.98776	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.13922	1.13922	0.010	1.64463	25.00000	Averaged	
116 Anthracene	1.19059	1.13655	1.13655	0.010	4.53892	25.00000	Averaged	
119 Carbazole	0.96820	0.98108	0.98108	0.010	-1.32996	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.26159	1.26159	0.010	-11.67318	25.00000	Averaged	
123 Fluoranthene	1.36048	1.35369	1.35369	0.010	0.49898	20.00000	Averaged	
124 Benzidine	4.00000	5.66982	0.21420	0.010	-41.74556	25.00000	Quadratic	<-
125 Pyrene	1.14166	1.08230	1.08230	0.010	5.19962	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.48273	0.48273	0.010	-18.85602	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.40813	0.40813	0.010	2.02500	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.15137	1.15137	0.010	1.26295	25.00000	Averaged	
137 Chrysene	1.13787	1.03550	1.03550	0.010	8.99693	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.68872	0.68872	0.010	-18.85807	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.08202	1.08202	0.010	-14.63835	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.28774	1.28774	0.010	-1.17118	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.13981	1.13981	0.010	16.22529	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.54027	0.54027	0.010	10.70690	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	1.03892	1.03892	0.010	7.78035	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	4.05360	1.19755	0.010	-1.33989	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	3.87547	0.92940	0.010	3.11325	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.78060	1.00038	0.010	5.48494	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08240CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082410.b\827011.m

Injection Date: 24-AUG-2010 07:13
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.48257	0.48257	0.010	-9.25301	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.38545	1.38545	0.010	-0.35289	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.80881	0.80881	0.010	1.44800	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.65902	1.65902	0.010	-2.42300	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.20946	1.20946	0.010	3.20321	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.11120	0.11120	0.010	2.66155	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.30976	1.30976	0.010	4.14528	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	1.04436	1.04436	0.010	1.14598	25.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L51311AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: V0824020.

Lot Number: C0H190588

Date Analyzed: 08/24/10

Time Analyzed: 09:02

Matrix: SOLID

Date Extracted:08/23/10

GC Column: DB5 ID: .25

Extraction Method:

Instrument ID: 731

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-102-SS	L5VR71AC	V0824023.	08/24/10	15:38
02	SD-102-01	L5VR91AC	V0824024.	08/24/10	16:00
03	SD-102-02	L5VTC1AC	V0824025.	08/24/10	16:22
04	SD-102-04	L5VTD1AC	V0824026.	08/24/10	16:44
05	SD-103-SS	L5VTE1AC	V0824027.	08/24/10	17:06
06	SD-103-01	L5VTG1AC	V0824028.	08/24/10	17:28
07	SD-103-02	L5VTH1AC	V0824029.	08/24/10	17:50
08	SD-104-SS	L5VTK1AC	V0824030.	08/24/10	18:12
09	SD-104-01	L5VTL1AC	V0824031.	08/24/10	18:34
10	SD-104-02	L5VTM1AC	V0824032.	08/24/10	18:57
11	SD-104-04	L5VTN1AC	V0825001.	08/25/10	14:18
12	SD-105-SS	L5VTP1AC	V0825002.	08/25/10	14:40
13	SD-105-01	L5VTT1AC	V0825003.	08/25/10	15:01
14	SD-105-02	L5VTV1AC	V0825004.	08/25/10	15:22
15	SD-105-04	L5VTW1AC	V0825005.	08/25/10	15:43
16	SD-DUP3-SS	L5VTX1AC	V0825006.	08/25/10	16:04
17	SD-86-SS	L5VT01AC	V0825007.	08/25/10	16:26
18	SD-86-01	L5VT11AC	V0825008.	08/25/10	16:47
19	SD-86-02	L5VT21AC	V0825009.	08/25/10	17:08
20	SD-86-04	L5VT31AC	V0825010.	08/25/10	17:29
21	CHECK SAMPLE	L51311AC C	V0824021.	08/24/10	11:57
22	DUPLICATE CHECK	L51311AD L	V0824022.	08/24/10	12:19
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H190588 **Work Order #...:** L51311AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H230000-288

Prep Date.....: 08/23/10 **Analysis Time..:** 09:02
Analysis Date..: 08/24/10 **Prep Batch #...:** 0235288 **Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5 **Initial Wgt/Vol:** 30 g **Instrument ID..:** 731
Analyst ID.....: 003200

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(27 - 110)
Terphenyl-d14	81	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	76	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0825DF1 DFTPP Injection Date: 08/25/10

Instrument ID: 731 DFTPP Injection Time: 1237

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.7
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	48.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 30.0% of mass 198	23.0
365	Greater than 1.0% of mass 198	2.64
441	Present, but less than mass 443	6.5
442	40.0 - 99.0% of mass 198	52.3
443	17.0 - 23.0% of mass 442	10.6 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08250CC	08/25/10	1253
02	INTRA-LAB BL	L513R1AA	V0825011	08/25/10	1315
03	INTRA-LAB CH	L513R1AC	V0825012	08/25/10	1336
04	INTRA-LAB CH	L513R1AD	V0825013	08/25/10	1357
05	SD-104-04	L5VTN1AC	V0825001	08/25/10	1418
06	SD-105-SS	L5VTP1AC	V0825002	08/25/10	1440
07	SD-105-01	L5VTT1AC	V0825003	08/25/10	1501
08	SD-105-02	L5VTV1AC	V0825004	08/25/10	1522
09	SD-105-04	L5VTW1AC	V0825005	08/25/10	1543
10	SD-DUP3-SS	L5VTX1AC	V0825006	08/25/10	1604
11	SD-86-SS	L5VT01AC	V0825007	08/25/10	1626
12	SD-86-01	L5VT11AC	V0825008	08/25/10	1647
13	SD-86-02	L5VT21AC	V0825009	08/25/10	1708
14	SD-86-04	L5VT31AC	V0825010	08/25/10	1729
15	SD-92-SS	L5VQ71AC	V0825014	08/25/10	1751
16	SD-92-01	L5VQ81AC	V0825015	08/25/10	1812
17	SD-93-SS	L5VQ91AC	V0825016	08/25/10	1833
18	SD-93-01	L5VRD1AC	V0825017	08/25/10	1854
19	SD-93-02	L5VRE1AC	V0825018	08/25/10	1916
20	SD-93-04	L5VRG1AC	V0825019	08/25/10	1938
21	SD-95-SS	L5VRH1AC	V0825020	08/25/10	1959
22	SD-95-01	L5VRJ1AC	V0825021	08/25/10	2020

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0825DF1 DFTPP Injection Date: 08/25/10

Instrument ID: 731 DFTPP Injection Time: 1237

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.7
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	48.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 30.0% of mass 198	23.0
365	Greater than 1.0% of mass 198	2.64
441	Present, but less than mass 443	6.5
442	40.0 - 99.0% of mass 198	52.3
443	17.0 - 23.0% of mass 442	10.6 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-95-02	L5VRK1AC	V0825022	08/25/10	2042
02	SD-95-04	L5VRL1AC	V0825023	08/25/10	2103
03	SD-DUP1-01	L5VRM1AC	V0825024	08/25/10	2124
04	SD-DUP2-04	L5VRP1AC	V0825025	08/25/10	2146
05	SD-87-SS	L5VRR1AD	V0825026	08/25/10	2208
06	SD-87-01	L5VRT1AJ	V0825027	08/25/10	2229
07	SD-87-02	L5VRX1AP	V0825028	08/25/10	2250
08	SD-87-04	L5VR01AV	V0825029	08/25/10	2312
09	SD-101-SS	L5VR21AP	V0825030	08/25/10	2334
10	SD-101-01	L5VR31AV	V0825031	08/25/10	2355
11	SD-101-02	L5VR41AV	V0825032	08/26/10	0017
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 25-AUG-2010 12:53
Lab File ID: V08250CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082510.b\827011.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	4.03321	0.51735	0.010	-0.83034	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.71813	0.71813	0.010	-16.68252	25.00000	Averaged	
9 Pyridine	1.20894	1.40641	1.40641	0.010	-16.33404	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.85925	0.85925	0.010	-13.12912	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.14273	0.82574	0.010	-28.56823	25.00000	Quadratic	<-
21 Aniline	1.78238	1.75058	1.75058	0.010	1.78445	25.00000	Averaged	
22 Phenol	1.78991	1.74042	1.74042	0.010	2.76518	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.26404	1.26404	0.010	-12.87162	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.42994	1.42994	0.010	-4.67895	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.75636	1.75636	0.010	-3.33458	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.73834	1.73834	0.010	-2.68828	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.65912	1.65912	0.010	-2.97548	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.62243	0.62243	0.010	25.07788	25.00000	Averaged	<-
30 2-Methylphenol	1.23988	1.25309	1.25309	0.010	-1.06523	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.64169	1.64169	0.010	-19.70192	25.00000	Averaged	
37 Acetophenone	1.79055	1.96247	1.96247	0.010	-9.60164	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.15926	1.15926	0.050	-21.14943	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.21436	1.21436	0.010	9.01850	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.77748	0.77748	0.010	-7.53914	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.52992	0.52992	0.010	-19.11086	25.00000	Averaged	
41 Isophorone	0.69909	0.72408	0.72408	0.010	-3.57424	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.20418	0.20418	0.010	-2.12266	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.40345	0.40345	0.010	1.17550	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.41194	0.41194	0.010	-1.46705	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.32318	0.32318	0.010	7.13458	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.16110	0.16110	0.010	8.83660	25.00000	Averaged	
50 1,2,4-Trichlorobenzene	0.43726	0.41567	0.41567	0.010	4.93770	25.00000	Averaged	
51 Naphthalene	1.12020	1.08579	1.08579	0.010	3.07240	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.40646	0.40646	0.010	4.05618	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.27228	0.27228	0.010	22.71173	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.31013	0.31013	0.010	6.45693	20.00000	Averaged	
208 Caprolactam	0.08094	0.07770	0.07770	0.010	4.00369	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.29621	0.29621	0.010	8.70755	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.68904	0.68904	0.010	6.10060	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.64791	0.64791	0.010	7.69267	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	4.26933	0.40248	0.050	-6.73329	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.43517	0.43517	0.010	-1.76402	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.42034	0.42034	0.010	10.06273	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.44168	1.44168	0.010	3.07985	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.18918	1.18918	0.010	1.68732	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.45498	0.45498	0.010	-38.94541	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.30672	1.30672	0.010	-3.69983	25.00000	Averaged	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 25-AUG-2010 12:53
Lab File ID: V08250CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082510.b\827011.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.26952	0.26952	0.010	-5.63941	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.59670	1.59670	0.010	2.70333	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.23075	0.23075	0.010	12.46522	25.00000	Averaged	
82 Acenaphthene	1.07511	1.15984	1.15984	0.010	-7.88195	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	9.85525	0.15452	0.050	1.44751	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.25327	0.25327	0.050	-1.61136	25.00000	Averaged	
86 Dibenzofuran	1.69916	1.61973	1.61973	0.010	4.67451	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.39052	0.39052	0.010	-8.79780	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.36420	0.36420	0.010	15.35813	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.37489	0.37489	0.010	15.92030	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.43020	0.43020	0.010	9.45567	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.43283	1.43283	0.010	-13.48568	25.00000	Averaged	
94 Fluorene	1.40487	1.32535	1.32535	0.010	5.66002	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.71194	0.71194	0.010	10.09006	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.26525	0.26525	0.010	2.05713	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.14533	0.14533	0.010	-5.86377	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.52454	0.52454	0.010	0.66480	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	1.05288	1.05288	0.010	-29.29714	25.00000	Averaged	<-
106 4-Bromophenyl-phenylether	0.27757	0.25524	0.25524	0.010	8.04514	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.25950	0.25950	0.010	5.74006	25.00000	Averaged	
210 Atrazine	0.11960	0.08832	0.08832	0.010	26.14848	25.00000	Averaged	<-
111 Pentachlorophenol	10.00000	9.10309	0.15113	0.010	8.96907	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.11890	1.11890	0.010	3.39879	25.00000	Averaged	
116 Anthracene	1.19059	1.12062	1.12062	0.010	5.87653	25.00000	Averaged	
119 Carbazole	0.96820	0.92528	0.92528	0.010	4.43318	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.14142	1.14142	0.010	-1.03551	25.00000	Averaged	
123 Fluoranthene	1.36048	1.21299	1.21299	0.010	10.84050	20.00000	Averaged	
124 Benzidine	4.00000	5.53588	0.20349	0.010	-38.39692	25.00000	Quadratic	<-
125 Pyrene	1.14166	1.17673	1.17673	0.010	-3.07185	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.49388	0.49388	0.010	-21.60075	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.37980	0.37980	0.010	8.82598	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.16875	1.16875	0.010	-0.22724	25.00000	Averaged	
137 Chrysene	1.13787	1.01295	1.01295	0.010	10.97820	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.66860	0.66860	0.010	-15.38537	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.12837	1.12837	0.010	-19.54941	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.32891	1.32891	0.010	-4.40613	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.27962	1.27962	0.010	5.94989	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.54460	0.54460	0.010	9.99079	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	0.97992	0.97992	0.010	13.01822	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	4.15868	1.23564	0.010	-3.96698	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	4.05835	0.98242	0.010	-1.45870	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.89760	1.03704	0.010	2.55998	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 25-AUG-2010 12:53
Lab File ID: V08250CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082510.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.50343	0.50343	0.010	-13.97546	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.32485	1.32485	0.010	4.03628	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.89036	0.89036	0.010	-8.48774	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.64063	1.64063	0.010	-1.28766	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.30950	1.30950	0.010	-4.80313	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.10514	0.10514	0.010	7.96972	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.40063	1.40063	0.010	-2.50533	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	1.07052	1.07052	0.010	-1.32992	25.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L513R1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: V0825011.

Lot Number: C0H190588

Date Analyzed: 08/25/10

Time Analyzed: 13:15

Matrix: SOLID

Date Extracted:08/23/10

GC Column: DB5 ID: .25

Extraction Method:

Instrument ID: 731

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-92-SS	L5VQ71AC	V0825014.	08/25/10	17:51
02	SD-92-01	L5VQ81AC	V0825015.	08/25/10	18:12
03	SD-93-SS	L5VQ91AC	V0825016.	08/25/10	18:33
04	SD-93-01	L5VRD1AC	V0825017.	08/25/10	18:54
05	SD-93-02	L5VRE1AC	V0825018.	08/25/10	19:16
06	SD-93-04	L5VRG1AC	V0825019.	08/25/10	19:38
07	SD-95-SS	L5VRH1AC	V0825020.	08/25/10	19:59
08	SD-95-01	L5VRJ1AC	V0825021.	08/25/10	20:20
09	SD-95-02	L5VRK1AC	V0825022.	08/25/10	20:42
10	SD-95-04	L5VRL1AC	V0825023.	08/25/10	21:03
11	SD-DUP1-01	L5VRM1AC	V0825024.	08/25/10	21:24
12	SD-DUP2-04	L5VRP1AC	V0825025.	08/25/10	21:46
13	SD-87-SS	L5VRR1AD	V0825026.	08/25/10	22:08
14	SD-87-01	L5VRT1AJ	V0825027.	08/25/10	22:29
15	SD-87-02	L5VRX1AP	V0825028.	08/25/10	22:50
16	SD-87-04	L5VR01AV	V0825029.	08/25/10	23:12
17	SD-101-SS	L5VR21AP	V0825030.	08/25/10	23:34
18	SD-101-01	L5VR31AV	V0825031.	08/25/10	23:55
19	SD-101-02	L5VR41AV	V0825032.	08/26/10	00:17
20	SD-101-04	L5VR61A1	V0826001.	08/26/10	13:17
21	CHECK SAMPLE	L513R1AC C	V0825012.	08/25/10	13:36
22	DUPLICATE CHECK	L513R1AD L	V0825013.	08/25/10	13:57
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H190588 **Work Order #...:** L513R1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H230000-285

Prep Date.....: 08/23/10 **Analysis Time..:** 13:15
Analysis Date..: 08/25/10 **Prep Batch #...:** 0235285 **Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5 **Initial Wgt/Vol:** 30 g **Instrument ID..:** 731
Analyst ID.....: 003200

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(27 - 110)
Terphenyl-d14	74	(21 - 130)
2-Fluorobiphenyl	67	(28 - 108)
2-Fluorophenol	69	(28 - 107)
Phenol-d5	70	(30 - 112)
2,4,6-Tribromophenol	67	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0826DF1 DFTPP Injection Date: 08/26/10

Instrument ID: 731 DFTPP Injection Time: 1157

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.7
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	46.8
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.0% of mass 198	3.71
441	Present, but less than mass 443	7.7
442	40.0 - 99.0% of mass 198	52.8
443	17.0 - 23.0% of mass 442	11.1 (21.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08260CC	08/26/10	1215
02	SD-101-04	L5VR61A1	V0826001	08/26/10	1317
03					
04					
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17					
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19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08260CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082610.b\827011.m

Injection Date: 26-AUG-2010 12:15
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	4.02582	0.51654	0.010	-0.64554	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.69883	0.69883	0.010	-13.54681	25.00000	Averaged	
9 Pyridine	1.20894	1.30842	1.30842	0.010	-8.22835	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.87376	0.87376	0.010	-15.03893	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.06064	0.80347	0.010	-26.51598	25.00000	Quadratic	<-
21 Aniline	1.78238	1.79336	1.79336	0.010	-0.61615	25.00000	Averaged	
22 Phenol	1.78991	1.71815	1.71815	0.010	4.00941	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.16182	1.16182	0.010	-3.74425	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.29817	1.29817	0.010	4.96721	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.57259	1.57259	0.010	7.47731	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.57395	1.57395	0.010	7.02290	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.46655	1.46655	0.010	8.97666	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.70904	0.70904	0.010	14.65341	25.00000	Averaged	
30 2-Methylphenol	1.23988	1.14637	1.14637	0.010	7.54195	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.50496	1.50496	0.010	-9.73194	25.00000	Averaged	
37 Acetophenone	1.79055	1.85735	1.85735	0.010	-3.73047	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.01423	1.01423	0.050	-5.99374	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.22160	1.22160	0.010	8.47579	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.70023	0.70023	0.010	3.14531	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.49115	0.49115	0.010	-10.39725	25.00000	Averaged	
41 Isophorone	0.69909	0.72907	0.72907	0.010	-4.28820	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.18907	0.18907	0.010	5.43691	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.41195	0.41195	0.010	-0.90660	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.41735	0.41735	0.010	-2.80050	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.32341	0.32341	0.010	7.06705	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.14559	0.14559	0.010	17.61206	25.00000	Averaged	
50 1,2,4-Trichlorobenzene	0.43726	0.41482	0.41482	0.010	5.13097	25.00000	Averaged	
51 Naphthalene	1.12020	1.02705	1.02705	0.010	8.31545	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.37409	0.37409	0.010	11.69727	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.30919	0.30919	0.010	12.23488	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.31326	0.31326	0.010	5.51222	20.00000	Averaged	
208 Caprolactam	0.08094	0.07745	0.07745	0.010	4.30988	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.33470	0.33470	0.010	-3.15392	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.68002	0.68002	0.010	7.32883	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.65400	0.65400	0.010	6.82476	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.98967	0.36766	0.050	0.25813	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.42920	0.42920	0.010	-0.36842	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.42845	0.42845	0.010	8.32834	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.38010	1.38010	0.010	7.21940	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.18799	1.18799	0.010	1.78599	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.43570	0.43570	0.010	-33.05769	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.31811	1.31811	0.010	-4.60410	25.00000	Averaged	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08260CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082610.b\827011.m

Injection Date: 26-AUG-2010 12:15
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.28472	0.28472	0.010	-11.59794	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.58985	1.58985	0.010	3.12088	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.27722	0.27722	0.010	-5.16333	25.00000	Averaged	
82 Acenaphthene	1.07511	1.10060	1.10060	0.010	-2.37138	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	10.09002	0.15911	0.050	-0.90022	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.29974	0.29974	0.050	-20.25436	25.00000	Averaged	
86 Dibenzofuran	1.69916	1.67281	1.67281	0.010	1.55085	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.41376	0.41376	0.010	-15.27292	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.38542	0.38542	0.010	10.42834	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.38138	0.38138	0.010	14.46432	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.41639	0.41639	0.010	12.36323	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.44615	1.44615	0.010	-14.54008	25.00000	Averaged	
94 Fluorene	1.40487	1.26648	1.26648	0.010	9.85035	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.75328	0.75328	0.010	4.86981	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.30216	0.30216	0.010	-11.57086	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.13162	0.13162	0.010	4.12326	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.47819	0.47819	0.010	9.44184	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	0.94227	0.94227	0.010	-15.71350	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.27757	0.23943	0.23943	0.010	13.74057	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.23963	0.23963	0.010	12.95871	25.00000	Averaged	
210 Atrazine	0.11960	0.10158	0.10158	0.010	15.06709	25.00000	Averaged	
111 Pentachlorophenol	10.00000	9.24768	0.15395	0.010	7.52319	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.09219	1.09219	0.010	5.70486	25.00000	Averaged	
116 Anthracene	1.19059	1.13534	1.13534	0.010	4.64088	25.00000	Averaged	
119 Carbazole	0.96820	0.93672	0.93672	0.010	3.25126	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.17864	1.17864	0.010	-4.33024	25.00000	Averaged	
123 Fluoranthene	1.36048	1.22355	1.22355	0.010	10.06469	20.00000	Averaged	
124 Benzidine	4.00000	5.26976	0.18223	0.010	-31.74403	25.00000	Quadratic	<-
125 Pyrene	1.14166	1.08327	1.08327	0.010	5.11463	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.48477	0.48477	0.010	-19.35645	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.38290	0.38290	0.010	8.08159	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.09864	1.09864	0.010	5.78481	25.00000	Averaged	
137 Chrysene	1.13787	1.01205	1.01205	0.010	11.05741	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.69171	0.69171	0.010	-19.37472	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.05059	1.05059	0.010	-11.30838	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.30021	1.30021	0.010	-2.15086	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.11462	1.11462	0.010	18.07655	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.52705	0.52705	0.010	12.89087	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	0.98456	0.98456	0.010	12.60577	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	3.80141	1.10611	0.010	4.96482	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	3.87808	0.93015	0.010	3.04788	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.73966	0.98755	0.010	6.50842	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 26-AUG-2010 12:15
Lab File ID: V08260CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082610.b\827011.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.49126	0.49126	0.010	-11.21936	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.29244	1.29244	0.010	6.38439	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.75463	0.75463	0.010	8.05040	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.61846	1.61846	0.010	0.08133	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.23023	1.23023	0.010	1.54109	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.08971	0.08971	0.010	21.47309	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.29062	1.29062	0.010	5.54605	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	0.99481	0.99481	0.010	5.83612	25.00000	Averaged

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H190588

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-92-SS	68	65	64	50	56	76	00
02	SD-92-01	62	61	65	58	59	71	00
03	SD-93-SS	72	67	73	68	69	81	00
04	SD-93-01	80	73	80	68	75	88	00
05	SD-93-02	81	75	79	71	74	94	00
06	SD-93-04	69	63	68	62	64	66	00
07	SD-95-SS	64	67	65	60	64	82	00
08	SD-95-01	60	76	68	55	59	90	00
09	SD-95-02	77	81	79	65	66	92	00
10	SD-95-04	80	71	78	68	68	78	00
11	SD-DUP1-01	74	80	80	64	68	90	00
12	SD-DUP2-04	72	54	69	63	63	72	00
13	SD-87-SS	0 D	0 D	0 D	0 D	0 D	0 D	06
14	SD-87-01	0 D	0 D	0 D	0 D	0 D	0 D	06
15	SD-87-02	0 D	0 D	0 D	0 D	0 D	0 D	06
16	SD-87-04	77	84	86	68	77	102	00
17	SD-101-SS	71	67	68	59	60	73	00
18	SD-101-01	70	63	65	59	60	74	00
19	SD-101-02	85	80	83	75	77	87	00
20	SD-101-04	57	65	56	51	55	64	00
21	SD-102-SS	57	56	59	48	54	58	00
22	SD-102-01	92	74	74	68	75	84	00
23	SD-102-02	93	73	73	76	76	85	00
24	SD-102-04	88	69	71	69	72	79	00
25	SD-103-SS	85	90	82	76	83	100	00
26	SD-103-01	70	72	66	62	69	78	00
27	SD-103-02	65	80	59	61	66	74	00

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H190588

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-104-SS	72	70	74	66	73	82	00
02	SD-104-01	73	66	60	58	66	68	00
03	SD-104-02	76	69	68	64	71	80	00
04	SD-104-04	69	80	68	62	63	77	00
05	SD-105-SS	83	100	81	76	81	96	00
06	SD-105-01	93	107	87	79	83	89	00
07	SD-105-02	97	100	90	84	81	89	00
08	SD-105-04	76	83	72	66	67	90	00
09	SD-DUP3-SS	89	85	84	79	77	94	00
10	SD-86-SS	0 D	0 D	0 D	0 D	0 D	0 D	06
11	SD-86-01	0 D	0 D	0 D	0 D	0 D	0 D	06
12	SD-86-02	0 D	0 D	0 D	0 D	0 D	0 D	06
13	SD-86-04	101	88	95	90	91	105	00
14	METHOD BLK. L513R1AA	74	74	67	69	70	67	00
15	METHOD BLK. L51311AA	75	81	73	72	76	77	00
16	LCS L513R1AC	77	80	70	72	70	82	00
17	LCS L51311AC	72	71	65	64	67	80	00
18	LCSD L513R1AD	80	81	72	75	75	82	00
19	LCSD L51311AD	83	78	72	74	79	90	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-110)
SRG02	= Terphenyl-d14	(21-130)
SRG03	= 2-Fluorobiphenyl	(28-108)
SRG04	= 2-Fluorophenol	(28-107)
SRG05	= Phenol-d5	(30-112)
SRG06	= 2,4,6-Tribromophenol	(21-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L513R1AC
BATCH: 0235285

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	332	196	59	39- 105	
2-Chlorophenol	332	191	58	40- 105	
1,4-Dichlorobenzene	332	182	55	41- 101	
N-Nitrosodi-n-propylamine	332	206	62	42- 108	
1,2,4-Trichlorobenzene	332	186	56	41- 105	
4-Chloro-3-methylphenol	332	205	62	43- 110	
Acenaphthene	332	212	64	42- 104	
4-Nitrophenol	332	231	69	27- 131	
2,4-Dinitrotoluene	332	232	70	48- 118	
Pentachlorophenol	332	196	59	18- 125	
Pyrene	332	218	65	39- 113	
4-Methylphenol	664	349	53	43- 107	
Hexachloroethane	332	191	57	40- 102	
Naphthalene	332	191	57	42- 104	
4-Bromophenyl phenyl ethe	332	207	62	43- 111	
Butyl benzyl phthalate	332	254	76	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L513R1AD
BATCH: 0235285

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	332	211	64	39- 105	
2-Chlorophenol	332	207	62	40- 105	
1,4-Dichlorobenzene	332	199	60	41- 101	
N-Nitrosodi-n-propylamine	332	229	69	42- 108	
1,2,4-Trichlorobenzene	332	194	58	41- 105	
4-Chloro-3-methylphenol	332	198	60	43- 110	
Acenaphthene	332	217	65	42- 104	
4-Nitrophenol	332	224	67	27- 131	
2,4-Dinitrotoluene	332	225	68	48- 118	
Pentachlorophenol	332	193	58	18- 125	
Pyrene	332	221	67	39- 113	
4-Methylphenol	664	380	57	43- 107	
Hexachloroethane	332	197	59	40- 102	
Naphthalene	332	196	59	42- 104	
4-Bromophenyl phenyl ethe	332	204	61	43- 111	
Butyl benzyl phthalate	332	265	80	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L51311AC
BATCH: 0235288

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	196	59	39- 105	
2-Chlorophenol	333	187	56	40- 105	
1,4-Dichlorobenzene	333	179	54	41- 101	
N-Nitrosodi-n-propylamine	333	215	64	42- 108	
1,2,4-Trichlorobenzene	333	183	55	41- 105	
4-Chloro-3-methylphenol	333	229	69	43- 110	
Acenaphthene	333	223	67	42- 104	
4-Nitrophenol	333	266	80	27- 131	
2,4-Dinitrotoluene	333	252	76	48- 118	
Pentachlorophenol	333	212	64	18- 125	
Pyrene	333	209	63	39- 113	
4-Methylphenol	667	366	55	43- 107	
Hexachloroethane	333	178	53	40- 102	
Naphthalene	333	191	57	42- 104	
4-Bromophenyl phenyl ethe	333	197	59	43- 111	
Butyl benzyl phthalate	333	249	75	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L51311AD
BATCH: 0235288

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	228	69	39- 105	
2-Chlorophenol	333	220	66	40- 105	
1,4-Dichlorobenzene	333	210	63	41- 101	
N-Nitrosodi-n-propylamine	333	255	77	42- 108	
1,2,4-Trichlorobenzene	333	214	64	41- 105	
4-Chloro-3-methylphenol	333	237	71	43- 110	
Acenaphthene	333	240	72	42- 104	
4-Nitrophenol	333	295	89	27- 131	
2,4-Dinitrotoluene	333	273	82	48- 118	
Pentachlorophenol	333	224	67	18- 125	
Pyrene	333	234	70	39- 113	
4-Methylphenol	667	438	66	43- 107	
Hexachloroethane	333	215	64	40- 102	
Naphthalene	333	221	66	42- 104	
4-Bromophenyl phenyl ethe	333	222	67	43- 111	
Butyl benzyl phthalate	333	281	84	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08240CC Date Analyzed: 08/24/10

Instrument ID: 731 Time Analyzed: 0713

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	136390	4.41	463584	5.37	285493	6.70
	UPPER LIMIT	272780	4.91	927168	5.87	570986	7.20
	LOWER LIMIT	68195	3.91	231792	4.87	142747	6.20
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	100572	4.40	353942	5.36	211080	6.69
02	INTRA-LAB CH	112893	4.41	368407	5.37	240749	6.70
03	INTRA-LAB CH	97031	4.41	328925	5.37	215063	6.70
04	SD-102-SS	108672	4.40	386497	5.36	242470	6.68
05	SD-102-01	92873	4.40	341065	5.36	211184	6.68
06	SD-102-02	95919	4.41	349748	5.36	230352	6.69
07	SD-102-04	102919	4.40	342230	5.36	224959	6.68
08	SD-103-SS	97211	4.41	348497	5.36	225355	6.69
09	SD-103-01	92947	4.40	326187	5.36	214840	6.68
10	SD-103-02	100691	4.40	358397	5.36	230227	6.69
11	SD-104-SS	107007	4.40	379378	5.36	229026	6.68
12	SD-104-01	103947	4.40	349402	5.35	234795	6.68
13	SD-104-02	104727	4.40	356114	5.35	233000	6.68
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08240CC Date Analyzed: 08/24/10

Instrument ID: 731 Time Analyzed: 0713

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	535704	7.83	658387	9.85	615731	11.11
	UPPER LIMIT	1071408	8.33	1316774	10.35	1231462	11.61
	LOWER LIMIT	267852	7.33	329194	9.35	307866	10.61
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	404732	7.82	471676	9.85	446804	11.12
02	INTRA-LAB CH	441875	7.83	565365	9.87	542290	11.15
03	INTRA-LAB CH	383833	7.83	501633	9.87	464018	11.14
04	SD-102-SS	437283	7.81	530814	9.85	513476	11.12
05	SD-102-01	400399	7.80	490497	9.85	494193	11.12
06	SD-102-02	423434	7.82	523360	9.85	537767	11.12
07	SD-102-04	418995	7.81	496194	9.86	509062	11.13
08	SD-103-SS	405545	7.82	480444	9.86	481248	11.14
09	SD-103-01	371021	7.80	463654	9.84	467748	11.11
10	SD-103-02	414843	7.81	463599	9.85	488893	11.11
11	SD-104-SS	422095	7.81	537915	9.85	592311	11.11
12	SD-104-01	423495	7.81	491654	9.84	528808	11.10
13	SD-104-02	412915	7.81	533090	9.84	540319	11.10
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08250CC Date Analyzed: 08/25/10

Instrument ID: 731 Time Analyzed: 1253

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	139417		4.50		469694		5.47		281755		6.82	
	UPPER LIMIT	278834		5.00		939388		5.97		563510		7.32	
	LOWER LIMIT	69709		4.00		234847		4.97		140878		6.32	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	123543		4.50		415222		5.48		242071		6.82	
02	INTRA-LAB CH	114883		4.49		358367		5.47		209839		6.82	
03	INTRA-LAB CH	115371		4.49		382699		5.47		229552		6.81	
04	SD-104-04	133069		4.49		448134		5.47		259854		6.81	
05	SD-105-SS	149432		4.49		506833		5.47		302595		6.81	
06	SD-105-01	149083		4.49		521640		5.47		310825		6.81	
07	SD-105-02	131489		4.49		440426		5.47		263305		6.82	
08	SD-105-04	151148		4.49		481203		5.46		290193		6.81	
09	SD-DUP3-SS	144374		4.49		488538		5.47		279429		6.81	
10	SD-86-SS	137231		4.50		463713		5.47		262574		6.82	
11	SD-86-01	131555		4.49		432697		5.47		245747		6.81	
12	SD-86-02	131664		4.50		431761		5.47		237386		6.82	
13	SD-86-04	138340		4.49		458931		5.46		268097		6.81	
14	SD-92-SS	142346		4.49		446408		5.47		263342		6.81	
15	SD-92-01	132089		4.49		449524		5.46		247610		6.81	
16	SD-93-SS	129534		4.49		454371		5.47		246296		6.81	
17	SD-93-01	135948		4.49		451404		5.47		261094		6.81	
18	SD-93-02	127438		4.49		425394		5.46		241326		6.81	
19	SD-93-04	133203		4.49		445293		5.46		248122		6.81	
20	SD-95-SS	143919		4.49		480067		5.46		284779		6.81	
21	SD-95-01	145663		4.49		490903		5.46		276317		6.81	
22	SD-95-02	140502		4.49		458326		5.46		261343		6.81	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Instrument ID: 731 Time Analyzed: 1253

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	474591		7.95		485213		10.00		435121		11.35	
	UPPER LIMIT	949182		8.45		970426		10.50		870242		11.85	
	LOWER LIMIT	237296		7.45		242607		9.50		217561		10.85	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	405087		7.96		425772		10.01		376258		11.36	
02	INTRA-LAB CH	338995		7.95		394490		10.00		376825		11.35	
03	INTRA-LAB CH	368280		7.95		407202		10.00		368909		11.35	
04	SD-104-04	426055		7.95		371479		10.01		369522		11.36	
05	SD-105-SS	466503		7.95		374320		10.01		389800		11.36	
06	SD-105-01	471175		7.96		334454		10.01		372342		11.36	
07	SD-105-02	384650		7.95		329663		10.01		348554		11.37	
08	SD-105-04	410194		7.95		395839		10.01		444225		11.36	
09	SD-DUP3-SS	402162		7.95		353732		10.01		419998		11.36	
10	SD-86-SS	361099		7.95		334697		10.02		428571		11.38	
11	SD-86-01	340731		7.95		373664		10.01		489437		11.36	
12	SD-86-02	325735		7.95		412998		10.01		521605		11.37	
13	SD-86-04	369644		7.95		380947		10.00		494026		11.35	
14	SD-92-SS	363747		7.94		376912		10.00		504112		11.34	
15	SD-92-01	346103		7.95		371911		9.99		494519		11.34	
16	SD-93-SS	359659		7.95		397492		9.99		496842		11.33	
17	SD-93-01	368429		7.94		411542		9.98		549543		11.32	
18	SD-93-02	344549		7.95		400635		9.98		534842		11.33	
19	SD-93-04	348092		7.95		393282		9.98		510724		11.31	
20	SD-95-SS	391945		7.94		404372		9.98		543462		11.32	
21	SD-95-01	381289		7.95		412434		9.98		549587		11.32	
22	SD-95-02	370678		7.94		409511		9.98		536666		11.32	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08250CC Date Analyzed: 08/25/10

Instrument ID: 731 Time Analyzed: 1253

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	139417		4.50		469694		5.47		281755		6.82	
	UPPER LIMIT	278834		5.00		939388		5.97		563510		7.32	
	LOWER LIMIT	69709		4.00		234847		4.97		140878		6.32	
	CLIENT SAMPLE NO.												
01	SD-95-04	136284		4.49		443624		5.46		245883		6.81	
02	SD-DUP1-01	147623		4.50		489199		5.47		272728		6.81	
03	SD-DUP2-04	125228		4.49		402319		5.46		229301		6.81	
04	SD-87-SS	117572		4.49		384192		5.46		215441		6.81	
05	SD-87-01	131590		4.49		416714		5.46		234267		6.81	
06	SD-87-02	129339		4.49		411524		5.46		228415		6.81	
07	SD-87-04	128606		4.49		428957		5.46		237921		6.81	
08	SD-101-SS	133050		4.49		436554		5.46		245464		6.80	
09	SD-101-01	142986		4.49		468774		5.46		266100		6.80	
10	SD-101-02	140002		4.49		454590		5.47		267429		6.81	
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08250CC Date Analyzed: 08/25/10

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08250CC Date Analyzed: 08/25/10

Instrument ID: 731 Time Analyzed: 1253

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	474591		7.95		485213		10.00		435121		11.35	
	UPPER LIMIT	949182		8.45		970426		10.50		870242		11.85	
	LOWER LIMIT	237296		7.45		242607		9.50		217561		10.85	
	CLIENT SAMPLE NO.												
01	SD-95-04	360912		7.94		397814		9.97		535529		11.31	
02	SD-DUP1-01	384861		7.95		435983		9.98		564779		11.32	
03	SD-DUP2-04	325734		7.94		405012		9.97		530729		11.30	
04	SD-87-SS	301828		7.95		340670		9.98		465438		11.32	
05	SD-87-01	327842		7.94		400100		9.97		545231		11.30	
06	SD-87-02	319174		7.94		437031		9.97		585153		11.31	
07	SD-87-04	327546		7.94		421968		9.98		557778		11.31	
08	SD-101-SS	326943		7.94		395441		9.97		546361		11.30	
09	SD-101-01	373920		7.94		416016		9.97		586418		11.29	
10	SD-101-02	382116		7.94		428716		9.97		560651		11.30	
11													
12													
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17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

Instrument ID: 731 Time Analyzed: 1215

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	134255		4.50		449273		5.49		272942		6.84	
	UPPER LIMIT	268510		5.00		898546		5.99		545884		7.34	
	LOWER LIMIT	67128		4.00		224637		4.99		136471		6.34	
	CLIENT SAMPLE NO.												
01	SD-101-04	100786		4.51		354118		5.49		208538		6.84	
02													
03													
04													
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20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H190588

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

Instrument ID: 731 Time Analyzed: 1215

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	509719	7.99	580411	10.04	536096	11.41
	UPPER LIMIT	1019438	8.49	1160822	10.54	1072192	11.91
	LOWER LIMIT	254860	7.49	290206	9.54	268048	10.91
	CLIENT SAMPLE NO.						
01	SD-101-04	348122	7.99	399055	10.05	389861	11.42
02							
03							
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20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT	#
01		M2154	08/28/10	0703				
02		M1232	08/28/10	0723				
03		M1242	08/28/10	0744				
04		M1248	08/28/10	0804				
05		M1262	08/28/10	0824				
06		M1268	08/28/10	0845				
07		XL1660	08/28/10	0905				
08		L1660	08/28/10	0925				
09		ML1660	08/28/10	0946				
10		M1660	08/28/10	1006				
11		MH1660	08/28/10	1026				
12		H1660	08/28/10	1047				
13		XH1660	08/28/10	1107				
14		2M2154	08/28/10	1127				
15		2M1232	08/28/10	1148				
16		2M1242	08/28/10	1208				
17		2M1248	08/28/10	1229				
18		2M1262	08/28/10	1249				
19		2M1268	08/28/10	1309				
20		2M1660	08/28/10	1330				
21	SD-92-SS	L5VQ71AD	08/28/10	1350				
22	SD-92-01	L5VQ81AD	08/28/10	1410				
23	SD-93-SS	L5VQ91AD	08/28/10	1431				
24	SD-93-01	L5VRD1AD	08/28/10	1451				
25	SD-93-02	L5VRE1AD	08/28/10	1511				
26	SD-93-04	L5VRG1AD	08/28/10	1532				
27	SD-95-SS	L5VRH1AD	08/28/10	1552				
28	SD-95-01	L5VRJ1AD	08/28/10	1613				
29	SD-95-02	L5VRK1AD	08/28/10	1633				
30	SD-95-04	L5VRL1AD	08/28/10	1653				
31	SD-DUP1-01	L5VRM1AD	08/28/10	1714				
32	SD-DUP2-04	L5VRP1AD	08/28/10	1734				

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		MEAN SURROGATE RT FROM INITIAL CALIBRATION				
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	SD-87-SS	L5VRR1AE	08/28/10	1754		
02	SD-87-01	L5VRT1AK	08/28/10	1815		
03	SD-87-02	L5VRX1AQ	08/28/10	1835		
04	SD-87-04	L5VR01AW	08/28/10	1855		
05	SD-101-SS	L5VR21AQ	08/28/10	1916		
06	PBLK5283	L51261AA	08/28/10	1936		
07	LCS5283	L51261AC	08/28/10	1957		
08	LCSD5283	L51261AD	08/28/10	2017		
09		MH1660	08/28/10	2037		
10	SD-101-01	L5VR31AW	08/28/10	2058		
11	SD-101-04	L5VR61A2	08/28/10	2138		
12		M1660	08/29/10	0244		
13		M1660	08/30/10	1356		
14	SD-102-SS	L5VR71AD	08/30/10	1416		
15	SD-102-01	L5VR91AD	08/30/10	1436		
16	SD-102-02	L5VTC1AD	08/30/10	1457		
17	SD-102-04	L5VTD1AD	08/30/10	1517		
18	SD-103-SS	L5VTE1AD	08/30/10	1537		
19	SD-103-01	L5VTG1AD	08/30/10	1558		
20	SD-103-02	L5VTH1AD	08/30/10	1618		
21	SD-104-SS	L5VTK1AD	08/30/10	1639		
22	SD-104-01	L5VTL1AD	08/30/10	1659		
23	SD-104-02	L5VTM1AD	08/30/10	1719		
24	SD-104-04	L5VTN1AD	08/30/10	1740		
25	SD-105-SS	L5VTP1AD	08/30/10	1800		
26	SD-105-01	L5VTT1AD	08/30/10	1821		
27	SD-105-02	L5VTV1AD	08/30/10	1841		
28	SD-105-04	L5VTW1AD	08/30/10	1901		
29	SD-DUP3-SS	L5VTX1AD	08/30/10	1922		
30	SD-86-SS	L5VT01AD	08/30/10	1942		
31	PBLK5284	L513H1AA	08/30/10	2003		
32	LCS5284	L513H1AC	08/30/10	2023		

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	LCSD5284	L513H1AD	08/30/10	2043		
02		MH1660	08/30/10	2104		
03	SD-86-01	L5VT11AD	08/30/10	2124		
04	SD-86-02	L5VT21AD	08/30/10	2144		
05	SD-86-04	L5VT31AD	08/30/10	2205		
06		M1660	08/31/10	0229		
07		M2154	08/31/10	1649		
08		M1232	08/31/10	1709		
09		M1242	08/31/10	1729		
10		M1248	08/31/10	1750		
11		M1262	08/31/10	1810		
12		M1268	08/31/10	1831		
13		M1660	08/31/10	1851		
14		M1660	09/01/10	0924		
15	SD-101-02	L5VR41AW	09/01/10	0944		
16		MH1660	09/01/10	1215		
17						
18						
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32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 30-Aug-2010 09:53

6E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801115.D
Level 2: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801116.D
Level 3: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801117.D
Level 4: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801118.D
Level 5: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801119.D
Level 6: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801120.D
Level 7: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801114.D

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
1 Aroclor-1221(1)	+++++	+++++	326144	+++++	+++++	+++++			
	+++++						326144	0.000	
(2)	+++++	+++++	218828	+++++	+++++	+++++			
	+++++						218828	0.000	<-
(3)	+++++	+++++	756818	+++++	+++++	+++++			
	+++++						756818	0.000	<-
3 Aroclor-1232(1)	+++++	+++++	352070	+++++	+++++	+++++			
	+++++						352070	0.000	<-
(2)	+++++	+++++	332418	+++++	+++++	+++++			
	+++++						332418	0.000	<-
(3)	+++++	+++++	262228	+++++	+++++	+++++			
	+++++						262228	0.000	<-
(4)	+++++	+++++	358466	+++++	+++++	+++++			
	+++++						358466	0.000	<-
(5)	+++++	+++++	217810	+++++	+++++	+++++			
	+++++						217810	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
4 Aroclor-1016(1)	955340	920630	846730	1132647	817982	824718			
	1177000						953578	15.405	
(2)	1026720	994255	923908	1325964	912401	932243			
	1449800						1080756	20.050	<-
(3)	877600	931950	861736	1298761	885597	922049			
	984000						965956	15.774	<-
(4)	991740	969640	881988	1299352	881184	889723			
	1381900						1042218	20.133	<-
(5)	676960	689275	636640	962518	643196	681991			
	987300						753983	20.206	<-
5 Aroclor-1242(1)	+++++	+++++	434154	+++++	+++++	+++++			
	+++++						434154	0.000	
(2)	+++++	+++++	697586	+++++	+++++	+++++			
	+++++						697586	0.000	
(3)	+++++	+++++	734798	+++++	+++++	+++++			
	+++++						734798	0.000	
(4)	+++++	+++++	453118	+++++	+++++	+++++			
	+++++						453118	0.000	
(5)	+++++	+++++	345952	+++++	+++++	+++++			
	+++++						345952	0.000	
6 Aroclor-1248(1)	+++++	+++++	1080376	+++++	+++++	+++++			
	+++++						1080376	0.000	

183 AA 8/30/11

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(2)	+++++	+++++	409094	+++++	+++++	+++++	+++++	409094	0.000	<-
(3)	+++++	+++++	489530	+++++	+++++	+++++	+++++	489530	0.000	<-
(4)	+++++	+++++	445960	+++++	+++++	+++++	+++++	445960	0.000	<-
(5)	+++++	+++++	621586	+++++	+++++	+++++	+++++	621586	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	1151304	+++++	+++++	+++++	+++++	1151304	0.000	
(2)	+++++	+++++	1920192	+++++	+++++	+++++	+++++	1920192	0.000	
(3)	+++++	+++++	1102060	+++++	+++++	+++++	+++++	1102060	0.000	
(4)	+++++	+++++	1469122	+++++	+++++	+++++	+++++	1469122	0.000	
(5)	+++++	+++++	980884	+++++	+++++	+++++	+++++	980884	0.000	
8 Aroclor-1260(1)	2035180	1907575	1778584	2389297	1749153	1717677	2411500	1998424	14.764	
(2)	2635400	2479830	2306268	3240700	2186068	2281147	2813800	2563316	14.438	

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(3)	2259420	2152565	1990964	2728213	1966505	1882163	2513200	2213290	14.058	
(4)	2305820	2185915	2003860	2691922	1810105	1836292	2631800	2209388	16.130	
(5)	1156300	1030465	957288	1290940	898524	908319	1321600	1080491	16.409	
9 Aroclor-1262(1)	+++++	+++++	2731000	+++++	+++++	+++++	+++++	2731000	0.000	
(2)	+++++	+++++	2330680	+++++	+++++	+++++	+++++	2330680	0.000	<-
(3)	+++++	+++++	4701386	+++++	+++++	+++++	+++++	4701386	0.000	<-
(4)	+++++	+++++	2044544	+++++	+++++	+++++	+++++	2044544	0.000	<-
(5)	+++++	+++++	3111894	+++++	+++++	+++++	+++++	3111894	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	5518726	+++++	+++++	+++++	+++++	5518726	0.000	
(2)	+++++	+++++	4968164	+++++	+++++	+++++	+++++	4968164	0.000	<-
(3)	+++++	+++++	4078350	+++++	+++++	+++++	+++++	4078350	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(4)	+++++	+++++	1254572	+++++	+++++	+++++			
	+++++						1254572	0.000	<-
$ 2 Tetrachloro-m-xylene	27560000	26782300	28970520	40554860	28620900	28968345			
	31896000						30478989	15.489	
$ 11 Decachlorobiphenyl	17917600	16047300	17608960	21801560	16425500	15681665			
	19986000						17924084	12.513	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801127.D
Report Date: 30-Aug-2010 09:46

7E

TestAmerica Pittsburgh

HP6890 GC-14
MR-2

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801127.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 28-AUG-2010 13:30
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	868382	0.010	8.93436	15.00000	Averaged	
(2)	1080756	907798	0.010	16.00341	15.00000	Averaged	<- D·K
(3)	965956	872314	0.010	9.69424	15.00000	Averaged	
(4)	1042218	907860	0.010	12.89155	15.00000	Averaged	
(5)	753983	609612	0.010	19.14776	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	++++	0.000	++++	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	17924084	389600	0.010	97.82639	15.00000	Averaged	<-
8 Aroclor-1260 (1)	1998424	1868548	0.010	6.49890	15.00000	Averaged	
(2)	2563316	2476344	0.010	3.39295	15.00000	Averaged	
(3)	2213290	2141506	0.010	3.24331	15.00000	Averaged	
(4)	2209388	1831410	0.010	17.10780	15.00000	Averaged	<- D·K
(5)	1080491	922886	0.010	14.58642	15.00000	Averaged	

8/30/10

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801148.D
Report Date: 30-Aug-2010 11:06

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801148.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 28-AUG-2010 20:37
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	800719	0.010	16.03005	15.00000	Averaged	<-
(2)	1080756	954816	0.010	11.65293	15.00000	Averaged	
(3)	965956	919170	0.010	4.84350	15.00000	Averaged	
(4)	1042218	894946	0.010	14.13064	15.00000	Averaged	
(5)	753983	662035	0.010	12.19494	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	30478989	28689460	0.000	5.87135	15.00000	Averaged	
$ 11 Decachlorobiphenyl	17924084	15516580	0.010	13.43167	15.00000	Averaged	
8 Aroclor-1260 (1)	1998424	1621914	0.010	18.84033	15.00000	Averaged	<-
(2)	2563316	2159462	0.010	15.75514	15.00000	Averaged	<-
(3)	2213290	1816161	0.010	17.94292	15.00000	Averaged	<-
(4)	2209388	1751805	0.010	20.71084	15.00000	Averaged	<-
(5)	1080491	843437	0.010	21.93946	15.00000	Averaged	<-

11.8

19.0

AA
8/31/10

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801166.D
Report Date: 30-Aug-2010 10:51

7E
HP6890 GC-19
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801166.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 29-AUG-2010 02:44
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	811804	0.010	14.86759	15.00000	Averaged	
(2)	1080756	903218	0.010	16.42718	15.00000	Averaged	<-
(3)	965956	863024	0.010	10.65598	15.00000	Averaged	
(4)	1042218	869342	0.010	16.58732	15.00000	Averaged	<-
(5)	753983	623168	0.010	17.34984	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	26886040	0.000	11.78828	15.00000	Averaged	
$ 11 Decachlorobiphenyl	17924084	17703600	0.010	1.23010	15.00000	Averaged	
8 Aroclor-1260 (1)	1998424	1716234	0.010	14.12061	15.00000	Averaged	
(2)	2563316	2307952	0.010	9.96226	15.00000	Averaged	
(3)	2213290	1955662	0.010	11.64004	15.00000	Averaged	
(4)	2209388	1910194	0.010	13.54193	15.00000	Averaged	
(5)	1080491	915590	0.010	15.26166	15.00000	Averaged	<-

15.2

O'K.

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801200.D
Report Date: 31-Aug-2010 07:57

7E
HP6890 GC 14
mR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801200.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 30-AUG-2010 13:56
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	826622	0.010	13.31365	15.00000	Averaged	
(2)	1080756	947572	0.010	12.32320	15.00000	Averaged	
(3)	965956	875402	0.010	9.37456	15.00000	Averaged	
(4)	1042218	910234	0.010	12.66377	15.00000	Averaged	
(5)	753983	632848	0.010	16.06599	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	27607440	0.000	9.42141	15.00000	Averaged	
$ 11 Decachlorobiphenyl	17924084	17690680	0.010	1.30218	15.00000	Averaged	
8 Aroclor-1260 (1)	1998424	1685166	0.010	15.67523	15.00000	Averaged	<-
(2)	2563316	2299494	0.010	10.29222	15.00000	Averaged	
(3)	2213290	1992708	0.010	9.96624	15.00000	Averaged	
(4)	2209388	1895664	0.010	14.19958	15.00000	Averaged	
(5)	1080491	931960	0.010	13.74661	15.00000	Averaged	

12.8

12.8

Ac
8/31/10

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801221.D
Report Date: 31-Aug-2010 07:58

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801221.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 30-AUG-2010 21:04
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	731827	0.010	23.25463	15.00000	Averaged	<-
(2)	1080756	880248	0.010	18.55255	15.00000	Averaged	<-
(3)	965956	845121	0.010	12.50938	15.00000	Averaged	
(4)	1042218	869007	0.010	16.61947	15.00000	Averaged	<-
(5)	753983	619981	0.010	17.77253	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	25731700	0.000	15.57561	15.00000	Averaged	<-
$ 11 Decachlorobiphenyl	17924084	16639520	0.010	7.16669	15.00000	Averaged	
8 Aroclor-1260 (1)	1998424	1641640	0.010	17.85325	15.00000	Averaged	<-
(2)	2563316	2159925	0.010	15.73708	15.00000	Averaged	<-
(3)	2213290	1842311	0.010	16.76142	15.00000	Averaged	<-
(4)	2209388	1721487	0.010	22.08307	15.00000	Averaged	<-
(5)	1080491	847753	0.010	21.54001	15.00000	Averaged	<-

17.8

18.8
AA
8/31/10

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801237.D
Report Date: 31-Aug-2010 07:58

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801237.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 31-AUG-2010 02:29
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	953578	864852	0.010	9.30454	15.00000	Averaged	
(2)	1080756	975096	0.010	9.77647	15.00000	Averaged	
(3)	965956	903252	0.010	6.49140	15.00000	Averaged	
(4)	1042218	923156	0.010	11.42391	15.00000	Averaged	
(5)	753983	660468	0.010	12.40277	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	30478989	28169600	0.000	7.57699	15.00000	Averaged	
$ 11 Decachlorobiphenyl	17924084	15629800	0.010	12.80000	15.00000	Averaged	
8 Aroclor-1260(1)	1998424	1754922	0.010	12.18468	15.00000	Averaged	
(2)	2563316	2288666	0.010	10.71464	15.00000	Averaged	
(3)	2213290	1919992	0.010	13.25167	15.00000	Averaged	
(4)	2209388	1902056	0.010	13.91027	15.00000	Averaged	
(5)	1080491	876522	0.010	18.87743	15.00000	Averaged	<-

13.8
ACe
8/31/10

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801306.D
Report Date: 01-Sep-2010 11:40

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801306.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 31-AUG-2010 18:51
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	835366	0.010	12.39669	15.00000	Averaged
(2)	1080756	942566	0.010	12.78640	15.00000	Averaged
(3)	965956	869868	0.010	9.94746	15.00000	Averaged
(4)	1042218	915892	0.010	12.12089	15.00000	Averaged
(5)	753983	644266	0.010	14.55163	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	27891560	0.000	8.48922	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	16537400	0.010	7.73643	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1782418	0.010	10.80880	15.00000	Averaged
(2)	2563316	2324818	0.010	9.30428	15.00000	Averaged
(3)	2213290	1968078	0.010	11.07907	15.00000	Averaged
(4)	2209388	2004792	0.010	9.26029	15.00000	Averaged
(5)	1080491	954616	0.010	11.64979	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801348.D
Report Date: 01-Sep-2010 11:41

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801348.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 01-SEP-2010 09:24
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	953578	865658	0.010	9.22002	15.00000	Averaged
(2)	1080756	947686	0.010	12.31265	15.00000	Averaged
(3)	965956	896504	0.010	7.18999	15.00000	Averaged
(4)	1042218	912360	0.010	12.45978	15.00000	Averaged
(5)	753983	650026	0.010	13.78769	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	28062440	0.000	7.92857	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	17067320	0.010	4.77996	15.00000	Averaged
8 Aroclor-1260 (1)	1998424	1774786	0.010	11.19070	15.00000	Averaged
(2)	2563316	2385396	0.010	6.94101	15.00000	Averaged
(3)	2213290	2038140	0.010	7.91355	15.00000	Averaged
(4)	2209388	1991894	0.010	9.84407	15.00000	Averaged
(5)	1080491	944334	0.010	12.60139	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801353.D
Report Date: 01-Sep-2010 12:19

TE
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801353.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 01-SEP-2010 12:15
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	828049	0.010	13.16401	15.00000	Averaged
(2)	1080756	965017	0.010	10.70905	15.00000	Averaged
(3)	965956	925642	0.010	4.17349	15.00000	Averaged
(4)	1042218	938810	0.010	9.92192	15.00000	Averaged
(5)	753983	686166	0.010	8.99447	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	29693680	0.000	2.57656	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	17428700	0.010	2.76379	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1768517	0.010	11.50440	15.00000	Averaged
(2)	2563316	2370784	0.010	7.51106	15.00000	Averaged
(3)	2213290	2014642	0.010	8.97523	15.00000	Averaged
(4)	2209388	1928172	0.010	12.72822	15.00000	Averaged
(5)	1080491	931396	0.010	13.79881	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	08/28/10	0723		
02		M1232	08/28/10	0744		
03		M1242	08/28/10	0804		
04		M1248	08/28/10	0824		
05		M1262	08/28/10	0845		
06		M1268	08/28/10	0905		
07		XL1660	08/28/10	0925		
08		L1660	08/28/10	0946		
09		ML1660	08/28/10	1006		
10		M1660	08/28/10	1026		
11		MH1660	08/28/10	1047		
12		H1660	08/28/10	1107		
13		XH1660	08/28/10	1127		
14		2M2154	08/28/10	1148		
15		2M1232	08/28/10	1208		
16		2M1242	08/28/10	1229		
17		2M1248	08/28/10	1249		
18		2M1262	08/28/10	1309		
19		2M1268	08/28/10	1330		
20		2ML660	08/28/10	1350		
21	SD-92-SS	L5VQ71AD	08/28/10	1410		
22	SD-92-01	L5VQ81AD	08/28/10	1431		
23	SD-93-SS	L5VQ91AD	08/28/10	1451		
24	SD-93-01	L5VRD1AD	08/28/10	1511		
25	SD-93-02	L5VRE1AD	08/28/10	1532		
26	SD-93-04	L5VRG1AD	08/28/10	1552		
27	SD-95-SS	L5VRH1AD	08/28/10	1613		
28	SD-95-01	L5VRJ1AD	08/28/10	1633		
29	SD-95-02	L5VRK1AD	08/28/10	1653		
30	SD-95-04	L5VRL1AD	08/28/10	1714		
31	SD-DUP1-01	L5VRM1AD	08/28/10	1734		
32	SD-DUP2-04	L5VRP1AD	08/28/10	1754		

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT	#
01	SD-87-SS	L5VRR1AE	08/28/10	1815				
02	SD-87-01	L5VRT1AK	08/28/10	1835				
03	SD-87-02	L5VRX1AQ	08/28/10	1855				
04	SD-87-04	L5VR01AW	08/28/10	1916				
05	SD-101-SS	L5VR21AQ	08/28/10	1936				
06	PBLK5283	L51261AA	08/28/10	1957				
07	LCS5283	L51261AC	08/28/10	2017				
08	LCSD5283	L51261AD	08/28/10	2037				
09		MH1660	08/28/10	2058				
10	SD-101-01	L5VR31AW	08/28/10	2118				
11	SD-101-04	L5VR61A2	08/28/10	2159				
12		M1660	08/29/10	0325				
13		M1660	08/30/10	1321				
14	SD-102-SS	L5VR71AD	08/30/10	1356				
15	SD-102-01	L5VR91AD	08/30/10	1416				
16	SD-102-02	L5VTC1AD	08/30/10	1436				
17	SD-102-04	L5VTD1AD	08/30/10	1457				
18	SD-103-SS	L5VTE1AD	08/30/10	1517				
19	SD-103-01	L5VTG1AD	08/30/10	1537				
20	SD-103-02	L5VTH1AD	08/30/10	1558				
21	SD-104-SS	L5VTK1AD	08/30/10	1618				
22	SD-104-01	L5VTL1AD	08/30/10	1639				
23	SD-104-02	L5VTM1AD	08/30/10	1659				
24	SD-104-04	L5VTN1AD	08/30/10	1719				
25	SD-105-SS	L5VTP1AD	08/30/10	1740				
26	SD-105-01	L5VTT1AD	08/30/10	1800				
27	SD-105-02	L5VTV1AD	08/30/10	1821				
28	SD-105-04	L5VTW1AD	08/30/10	1841				
29	SD-DUP3-SS	L5VTX1AD	08/30/10	1901				
30	SD-86-SS	L5VT01AD	08/30/10	1922				
31	PBLK5284	L513H1AA	08/30/10	1942				
32	LCS5284	L513H1AC	08/30/10	2003				

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	LCSD5284	L513H1AD	08/30/10	2023		
02		MH1660	08/30/10	2043		
03	SD-86-01	L5VT11AD	08/30/10	2104		
04	SD-86-02	L5VT21AD	08/30/10	2124		
05	SD-86-04	L5VT31AD	08/30/10	2144		
06		M1660	08/31/10	0533		
07		M2154	08/31/10	1628		
08		M1232	08/31/10	1649		
09		M1242	08/31/10	1709		
10		M1248	08/31/10	1729		
11		M1262	08/31/10	1750		
12		M1268	08/31/10	1810		
13		M1660	08/31/10	1831		
14		M1660	09/01/10	0903		
15	SD-101-02	L5VR41AW	09/01/10	0924		
16		MH1660	09/01/10	1045		
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

6E
HP6890 GC-14
MR-1

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801115.D
Level 2: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801116.D
Level 3: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801117.D
Level 4: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801118.D
Level 5: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801119.D
Level 6: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801120.D
Level 7: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801114.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	181940	+++++	+++++	+++++	181940	0.000	
(2)	+++++ / +++++	+++++	127978	+++++	+++++	+++++	127978	0.000	
(3)	+++++ / +++++	+++++	422586	+++++	+++++	+++++	422586	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	147694	+++++	+++++	+++++	147694	0.000	
(2)	+++++ / +++++	+++++	238040	+++++	+++++	+++++	238040	0.000	<-
(3)	+++++ / +++++	+++++	266080	+++++	+++++	+++++	266080	0.000	<-
(4)	+++++ / +++++	+++++	162674	+++++	+++++	+++++	162674	0.000	<-
(5)	+++++ / +++++	+++++	213488	+++++	+++++	+++++	213488	0.000	<-

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
4 Aroclor-1016(1)	530420	547975	519314	532401	550869	581165		
	608900						553006	5.726
(2)	622860	695215	657490	692776	743482	796938		
	712500						703037	8.049
(3)	307760	397650	361430	403685	459024	492677		
	410400						404661	14.979
(4)	498680	560690	534964	528519	580863	590929		
	450100						534963	9.177
(5)	555880	618905	596034	586640	658213	682590		
	627700						617995	6.994
5 Aroclor-1242(1)	+++++	+++++	315832	+++++	+++++	+++++		
	+++++						315832	0.000
(2)	+++++	+++++	522574	+++++	+++++	+++++		
	+++++						522574	0.000
(3)	+++++	+++++	308592	+++++	+++++	+++++		
	+++++						308592	0.000
(4)	+++++	+++++	323460	+++++	+++++	+++++		
	+++++						323460	0.000
(5)	+++++	+++++	401898	+++++	+++++	+++++		
	+++++						401898	0.000
6 Aroclor-1248(1)	+++++	+++++	792704	+++++	+++++	+++++		
	+++++						792704	0.000

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(2)	+++++	+++++	849506	+++++	+++++	+++++			
	+++++						849506	0.000	<-
(3)	+++++	+++++	811398	+++++	+++++	+++++			
	+++++						811398	0.000	<-
(4)	+++++	+++++	406108	+++++	+++++	+++++			
	+++++						406108	0.000	<-
(5)	+++++	+++++	238946	+++++	+++++	+++++			
	+++++						238946	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	352844	+++++	+++++	+++++			
	+++++						352844	0.000	
(2)	+++++	+++++	794038	+++++	+++++	+++++			
	+++++						794038	0.000	<-
(3)	+++++	+++++	1290330	+++++	+++++	+++++			
	+++++						1290330	0.000	<-
(4)	+++++	+++++	733294	+++++	+++++	+++++			
	+++++						733294	0.000	<-
(5)	+++++	+++++	603718	+++++	+++++	+++++			
	+++++						603718	0.000	<-
8 Aroclor-1260(1)	1730000	1701960	1628712	1619963	1814625	1957934			
	1799200						1750342	6.766	
(2)	1363140	1375980	1246842	1402126	1492612	1639418			
	1400200						1417188	8.605	

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(3)	1114140	1105435	1021762	1096716	1152195	1247188	1112200	1121377	6.059	
(4)	1031520	1048335	918810	1034101	1117308	1177713	1020700	1049784	7.730	
(5)	2400480	2479365	2503420	2494463	2722693	2930665	2324300	2550769	8.134	
9 Aroclor-1262(1)	+++++	+++++	1105984	+++++	+++++	+++++	+++++	1105984	0.000	
(2)	+++++	+++++	527214	+++++	+++++	+++++	+++++	527214	0.000	<-
(3)	+++++	+++++	483030	+++++	+++++	+++++	+++++	483030	0.000	<-
(4)	+++++	+++++	2811500	+++++	+++++	+++++	+++++	2811500	0.000	<-
(5)	+++++	+++++	1424556	+++++	+++++	+++++	+++++	1424556	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	3321026	+++++	+++++	+++++	+++++	3321026	0.000	<-
(2)	+++++	+++++	2515862	+++++	+++++	+++++	+++++	2515862	0.000	<-
(3)	+++++	+++++	2300614	+++++	+++++	+++++	+++++	2300614	0.000	<-

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(4)	+++++	+++++	4922440	+++++	+++++	+++++	+++++	4922440	0.000	<-
$ 2 Tetrachloro-m-xylene	19230800	19693800	22503120	21781660	23106360	23689315	21526000	21647294	7.711	
$ 11 Decachlorobiphenyl	10397600	9612100	10792120	10409920	11231540	11804480	12300000	10935394	8.383	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801127.D
Report Date: 30-Aug-2010 07:45

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801127.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 28-AUG-2010 13:50
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	553006	491914	400.000	11.04729	15.00000	Averaged	
(2)	703037	658766	400.000	6.29713	15.00000	Averaged	
(3)	404661	368260	400.000	8.99541	15.00000	Averaged	
(4)	534963	531290	400.000	0.68667	15.00000	Averaged	
(5)	617995	608956	400.000	1.46257	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	21647294	1011960	400.000	95.32524	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	10935394	230720	400.000	97.89015	15.00000	Averaged	<- NA
8 Aroclor-1260(1)	1750342	1843006	400.000	-5.29406	15.00000	Averaged	
(2)	1417188	1535502	400.000	-8.34848	15.00000	Averaged	
(3)	1121377	957196	400.000	14.64098	15.00000	Averaged	
(4)	1049784	1032914	400.000	1.60698	15.00000	Averaged	
(5)	2550769	2301956	400.000	9.75444	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801148.D
Report Date: 30-Aug-2010 08:23

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801148.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 28-AUG-2010 20:58
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	553006	522277	400.000	5.55676	15.00000	Averaged
(2)	703037	700042	400.000	0.42603	15.00000	Averaged
(3)	404661	394732	400.000	2.45363	15.00000	Averaged
(4)	534963	536576	400.000	-0.30144	15.00000	Averaged
(5)	617995	616542	400.000	0.23505	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	21900960	400.000	-1.17182	15.00000	Averaged
$ 11 Decachlorobiphenyl	10935394	10785400	400.000	1.37164	15.00000	Averaged
8 Aroclor-1260(1)	1750342	1740594	400.000	0.55692	15.00000	Averaged
(2)	1417188	1340245	400.000	5.42929	15.00000	Averaged
(3)	1121377	1091875	400.000	2.63083	15.00000	Averaged
(4)	1049784	1074676	400.000	-2.37117	15.00000	Averaged
(5)	2550769	2498649	400.000	2.04332	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801167.D
Report Date: 30-Aug-2010 08:23

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801167.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 29-AUG-2010 03:25
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	553006	549572	400.000	0.62101	15.00000	Averaged
(2)	703037	687482	400.000	2.21257	15.00000	Averaged
(3)	404661	393328	400.000	2.80059	15.00000	Averaged
(4)	534963	544016	400.000	-1.69219	15.00000	Averaged
(5)	617995	603254	400.000	2.38523	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	24569520	400.000	-13.49927	15.00000	Averaged
$ 11 Decachlorobiphenyl	10935394	9441720	400.000	13.65908	15.00000	Averaged
8 Aroclor-1260 (1)	1750342	1657648	400.000	5.29576	15.00000	Averaged
(2)	1417188	1336700	400.000	5.67943	15.00000	Averaged
(3)	1121377	1050496	400.000	6.32085	15.00000	Averaged
(4)	1049784	1043382	400.000	0.60982	15.00000	Averaged
(5)	2550769	2264526	400.000	11.22185	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801200.D
Report Date: 31-Aug-2010 06:45

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801200.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 30-AUG-2010 13:21
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	553006	517780	400.000	6.36995	15.00000	Averaged
(2)	703037	661136	400.000	5.96002	15.00000	Averaged
(3)	404661	356730	400.000	11.84471	15.00000	Averaged
(4)	534963	548528	400.000	-2.53561	15.00000	Averaged
(5)	617995	596996	400.000	3.39786	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	23280520	400.000	-7.54471	15.00000	Averaged
$ 11 Decachlorobiphenyl	10935394	11043560	400.000	-0.98913	15.00000	Averaged
8 Aroclor-1260(1)	1750342	1688402	400.000	3.53873	15.00000	Averaged
(2)	1417188	1307110	400.000	7.76737	15.00000	Averaged
(3)	1121377	1115226	400.000	0.54848	15.00000	Averaged
(4)	1049784	1116910	400.000	-6.39429	15.00000	Averaged
(5)	2550769	2383666	400.000	6.55110	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801221.D
Report Date: 31-Aug-2010 06:45

TE
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801221.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 30-AUG-2010 20:43
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	553006	507852	400.000	8.16523	15.00000	Averaged
(2)	703037	664001	400.000	5.55251	15.00000	Averaged
(3)	404661	383637	400.000	5.19543	15.00000	Averaged
(4)	534963	554636	400.000	-3.67737	15.00000	Averaged
(5)	617995	613792	400.000	0.68004	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	22580900	400.000	-4.31281	15.00000	Averaged
$ 11 Decachlorobiphenyl	10935394	10819000	400.000	1.06438	15.00000	Averaged
8 Aroclor-1260(1)	1750342	1697311	400.000	3.02975	15.00000	Averaged
(2)	1417188	1395817	400.000	1.50801	15.00000	Averaged
(3)	1121377	1143719	400.000	-1.99242	15.00000	Averaged
(4)	1049784	1146779	400.000	-9.23954	15.00000	Averaged
(5)	2550769	2538962	400.000	0.46290	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801237.D
Report Date: 31-Aug-2010 06:48

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801237.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 31-AUG-2010 05:33
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	553006	533674	400.000	3.49584	15.00000	Averaged
(2)	703037	702778	400.000	0.03687	15.00000	Averaged
(3)	404661	394802	400.000	2.43633	15.00000	Averaged
(4)	534963	611818	400.000	-14.36632	15.00000	Averaged
(5)	617995	666002	400.000	-7.76825	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	23342840	400.000	-7.83260	15.00000	Averaged
$ 11 Decachlorobiphenyl	10935394	11440400	400.000	-4.61808	15.00000	Averaged
8 Aroclor-1260 (1)	1750342	1775878	400.000	-1.45892	15.00000	Averaged
(2)	1417188	1410760	400.000	0.45359	15.00000	Averaged
(3)	1121377	1232136	400.000	-9.87710	15.00000	Averaged
(4)	1049784	1206562	400.000	-14.93433	15.00000	Averaged
(5)	2550769	2401108	400.000	5.86730	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801306.D
Report Date: 01-Sep-2010 11:09

TE
HP6890 Gc-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801306.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 31-AUG-2010 18:31
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	553006	542570	400.000	1.88718	15.00000	Averaged	
(2)	703037	710348	400.000	-1.03989	15.00000	Averaged	
(3)	404661	403066	400.000	0.39413	15.00000	Averaged	
(4)	534963	620680	400.000	-16.02288	15.00000	Averaged	<-
(5)	617995	670886	400.000	-8.55855	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	21647294	23160960	400.000	-6.99240	15.00000	Averaged	
$ 11 Decachlorobiphenyl	10707960	11440120	400.000	-6.83753	15.00000	Averaged	
8 Aroclor-1260(1)	1750342	1834858	400.000	-4.82855	15.00000	Averaged	
(2)	1417188	1466856	400.000	-3.50467	15.00000	Averaged	
(3)	1121377	1256152	400.000	-12.01876	15.00000	Averaged	
(4)	1049784	1240238	400.000	-18.14223	15.00000	Averaged	<-
(5)	2550769	2692806	400.000	-5.56838	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801348.D
Report Date: 01-Sep-2010 11:02

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801348.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 01-SEP-2010 09:03
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	553006	567740	400.000	-2.66431	15.00000	Averaged	
(2)	703037	733284	400.000	-4.30231	15.00000	Averaged	
(3)	404661	420638	400.000	-3.94827	15.00000	Averaged	
(4)	534963	623020	400.000	-16.46030	15.00000	Averaged	<-
(5)	617995	713478	400.000	-15.45052	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	21647294	24796880	400.000	-14.54956	15.00000	Averaged	
$ 11 Decachlorobiphenyl	10707960	11298040	400.000	-5.51067	15.00000	Averaged	
8 Aroclor-1260(1)	1750342	1887672	400.000	-7.84590	15.00000	Averaged	
(2)	1417188	1521316	400.000	-7.34749	15.00000	Averaged	
(3)	1121377	1238772	400.000	-10.46887	15.00000	Averaged	
(4)	1049784	1214650	400.000	-15.70477	15.00000	Averaged	<-
(5)	2550769	2717494	400.000	-6.53625	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801353.D
Report Date: 01-Sep-2010 11:03

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801353.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 01-SEP-2010 10:45
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	553006	526771	400.000	4.74411	15.00000	Averaged
(2)	703037	693428	400.000	1.36681	15.00000	Averaged
(3)	404661	405520	400.000	-0.21230	15.00000	Averaged
(4)	534963	592493	400.000	-10.75393	15.00000	Averaged
(5)	617995	658556	400.000	-6.56339	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	22617680	400.000	-4.48271	15.00000	Averaged
$ 11 Decachlorobiphenyl	10707960	10419600	400.000	2.69295	15.00000	Averaged
8 Aroclor-1260 (1)	1750342	1726047	400.000	1.38801	15.00000	Averaged
(2)	1417188	1396636	400.000	1.45022	15.00000	Averaged
(3)	1121377	1157978	400.000	-3.26398	15.00000	Averaged
(4)	1049784	1158295	400.000	-10.33653	15.00000	Averaged
(5)	2550769	2466064	400.000	3.32078	15.00000	Averaged

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L513H1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0801218.

Lot Number: C0H190588

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/23/10

Date Analyzed(1): 08/30/10

Date Analyzed(2): N/A

Time Analyzed(1): 19:42

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-102-SS	L5VR71AD	08/30/10	N/A
02	SD-102-01	L5VR91AD	08/30/10	N/A
03	SD-102-02	L5VTC1AD	08/30/10	N/A
04	SD-102-04	L5VTD1AD	08/30/10	N/A
05	SD-103-SS	L5VTE1AD	08/30/10	N/A
06	SD-103-01	L5VTG1AD	08/30/10	N/A
07	SD-103-02	L5VTH1AD	08/30/10	N/A
08	SD-104-SS	L5VTK1AD	08/30/10	N/A
09	SD-104-01	L5VTL1AD	08/30/10	N/A
10	SD-104-02	L5VTM1AD	08/30/10	N/A
11	SD-104-04	L5VTN1AD	08/30/10	N/A
12	SD-105-SS	L5VTP1AD	08/30/10	N/A
13	SD-105-01	L5VTT1AD	08/30/10	N/A
14	SD-105-02	L5VTV1AD	08/30/10	N/A
15	SD-105-04	L5VTW1AD	08/30/10	N/A
16	SD-DUP3-SS	L5VTX1AD	08/30/10	N/A
17	SD-86-SS	L5VT01AD	08/30/10	N/A
18	SD-86-01	L5VT11AD	08/30/10	N/A
19	SD-86-02	L5VT21AD	08/30/10	N/A
20	SD-86-04	L5VT31AD	08/30/10	N/A
21	CHECK SAMPLE	L513H1AC C	08/30/10	N/A
22	DUPLICATE CHECK	L513H1AD L	08/30/10	N/A

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H190588 **Work Order #...:** L513H1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H230000-284

Prep Date.....: 08/23/10 **Analysis Time..:** 19:42
Analysis Date..: 08/30/10 **Prep Batch #...:** 0235284 **Final Wgt/Vol..:** 10 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 15 g **Instrument ID..:** S/T
Analyst ID.....: 402360

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	115	(35 - 140)
Decachlorobiphenyl	106	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BLANK WORKORDER NO.

L51261AA

SW846 8082 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0801145.

Lot Number: C0H190588

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/23/10

Date Analyzed(1): 08/28/10

Date Analyzed(2): N/A

Time Analyzed(1): 19:57

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-92-SS	L5VQ71AD	08/28/10	N/A
02	SD-92-01	L5VQ81AD	08/28/10	N/A
03	SD-93-SS	L5VQ91AD	08/28/10	N/A
04	SD-93-01	L5VRD1AD	08/28/10	N/A
05	SD-93-02	L5VRE1AD	08/28/10	N/A
06	SD-93-04	L5VRG1AD	08/28/10	N/A
07	SD-95-SS	L5VRH1AD	08/28/10	N/A
08	SD-95-01	L5VRJ1AD	08/28/10	N/A
09	SD-95-02	L5VRK1AD	08/28/10	N/A
10	SD-95-04	L5VRL1AD	08/28/10	N/A
11	SD-DUP1-01	L5VRM1AD	08/28/10	N/A
12	SD-DUP2-04	L5VRP1AD	08/28/10	N/A
13	SD-87-SS	L5VRR1AE	08/28/10	N/A
14	SD-87-01	L5VRT1AK	08/28/10	N/A
15	SD-87-02	L5VRX1AQ	08/28/10	N/A
16	SD-87-04	L5VR01AW	08/28/10	N/A
17	SD-101-SS	L5VR21AQ	08/28/10	N/A
18	SD-101-01	L5VR31AW	08/28/10	N/A
19	SD-101-02	L5VR41AW	09/01/10	N/A
20	SD-101-04	L5VR61A2	08/28/10	N/A
21	CHECK SAMPLE	L51261AC C	08/28/10	N/A
22	DUPLICATE CHECK	L51261AD L	08/28/10	N/A

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H190588 **Work Order #...:** L51261AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H230000-283

Prep Date.....: 08/23/10 **Analysis Time..:** 19:57
Analysis Date..: 08/28/10 **Prep Batch #...:** 0235283 **Final Wgt/Vol..:** 10 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 15 g **Instrument ID..:** S/T
Analyst ID.....: 402360

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H190588

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-92-SS	104	94	00
02	SD-92-01	109	81	00
03	SD-93-SS	104	92	00
04	SD-93-01	121	68	00
05	SD-93-02	113	93	00
06	SD-93-04	114	100	00
07	SD-95-SS	106	98	00
08	SD-95-01	113	103	00
09	SD-95-02	118	96	00
10	SD-95-04	120	107	00
11	SD-DUP1-01	114	106	00
12	SD-DUP2-04	111	102	00
13	SD-87-SS	114	101	00
14	SD-87-01	112	102	00
15	SD-87-02	116	108	00
16	SD-87-04	110	101	00
17	SD-101-SS	111	104	00
18	SD-101-01	110	101	00
19	SD-101-02	123	114	00
20	SD-101-04	110	98	00
21	SD-102-SS	123	93	00
22	SD-102-01	109	91	00
23	SD-102-02	123	104	00
24	SD-102-04	117	94	00
25	SD-103-SS	118	95	00
26	SD-103-01	118	92	00
27	SD-103-02	117	97	00

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H190588

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-104-SS	114	93	00
02	SD-104-01	117	94	00
03	SD-104-02	118	94	00
04	SD-104-04	117	93	00
05	SD-105-SS	119	102	00
06	SD-105-01	119	98	00
07	SD-105-02	117	101	00
08	SD-105-04	117	103	00
09	SD-DUP3-SS	111	97	00
10	SD-86-SS	119	101	00
11	SD-86-01	124	130	00
12	SD-86-02	130	113	00
13	SD-86-04	113	108	00
14	METHOD BLK. L51261AA	111	101	00
15	METHOD BLK. L513H1AA	115	106	00
16	LCS L51261AC	118	100	00
17	LCS L513H1AC	120	102	00
18	LCSD L51261AD	117	98	00
19	LCSD L513H1AD	120	103	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L51261AC
BATCH: 0235283

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	635	95	55- 130	
Aroclor 1260	667	643	97	54- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L51261AD
BATCH: 0235283

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	627	94	55 - 130	
Aroclor 1260	667	632	95	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L513H1AC
BATCH: 0235284

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	635	95	55 - 130	
Aroclor 1260	667	654	98	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H230000 WO #: L513H1AD
BATCH: 0235284

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	616	92	55 - 130	
Aroclor 1260	667	676	101	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-101-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR31AW Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	122.99		
Aroclor-1260	2	10.02	9.97	10.07	114.91		
	3	10.23	10.18	10.28	42.240		
COLUMN 1	4	10.54	10.49	10.59	64.958		
	5	11.02	10.97	11.07	69.500	82.919	
	1	9.99	9.96	10.02	119.00		
	2	10.36	10.33	10.39	59.250		
	3	10.47	10.44	10.50	80.934		
COLUMN 2	4	10.75	10.72	10.78	72.557		
	5	11.17	11.14	11.20	76.120	81.573	1.6
						RPD= 1.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-101-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR41AW Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	33.878		
Aroclor-1260	2	10.35	10.33	10.39	20.414		
	3	10.46	10.44	10.50	19.226		
COLUMN 1	4	10.74	10.72	10.78	16.295		
	5	11.17	11.14	11.20	17.510	21.465	
	1	9.72	9.68	9.78	25.065		
	2	10.02	9.97	10.07	27.785		
	3	10.23	10.18	10.28	6.8915		
COLUMN 2	4	10.54	10.49	10.59	14.014		
	5	11.02	10.97	11.07	15.257	17.803	20.6
						RPD= 18.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-102-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR71AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	66.426		
Aroclor-1260	2	10.36	10.33	10.39	50.736		
	3	10.47	10.44	10.50	58.424		
COLUMN 1	4	10.75	10.72	10.78	52.281		
	5	11.17	11.14	11.20	50.804	55.734	
	1	9.72	9.68	9.78	56.254		
	2	10.02	9.97	10.07	64.521		
	3	10.23	10.18	10.28	33.154		
COLUMN 2	4	10.54	10.49	10.59	46.918		
	5	11.02	10.97	11.07	49.798	50.129	11.2
						RPD= 10.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-101-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR21AQ Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	45.311		
Aroclor-1260	2	10.02	9.97	10.07	54.258		
	3	10.23	10.18	10.28	27.376		
COLUMN 1	4	10.54	10.49	10.59	38.785		
	5	11.02	10.97	11.07	43.054	41.757	
	1	9.99	9.96	10.02	55.532		
	2	10.36	10.33	10.39	40.380		
	3	10.47	10.44	10.50	47.718		
COLUMN 2	4	10.75	10.72	10.78	39.522		
	5	11.17	11.14	11.20	46.424	45.915	10.0
						RPD= 9.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-102-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR91AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	112.34		
Aroclor-1260	2	10.35	10.33	10.39	61.004		
	3	10.46	10.44	10.50	76.856		
COLUMN 1	4	10.74	10.72	10.78	66.394		
	5	11.17	11.14	11.20	68.249	76.968	
	1	9.72	9.68	9.78	109.04		
	2	10.02	9.97	10.07	110.05		
	3	10.23	10.18	10.28	39.108		
COLUMN 2	4	10.54	10.49	10.59	59.189		
	5	11.02	10.97	11.07	64.292	76.336	0.8
						RPD= 0.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-102-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTC1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	78.259		
Aroclor-1260	2	10.36	10.33	10.39	41.945		
	3	10.46	10.44	10.50	48.184		
COLUMN 1	4	10.74	10.72	10.78	42.104		
	5	11.17	11.14	11.20	43.948	50.888	
	1	9.72	9.68	9.78	65.028		
	2	10.02	9.97	10.07	67.151		
	3	10.23	10.18	10.28	20.521		
COLUMN 2	4	10.54	10.49	10.59	34.758		
	5	11.02	10.97	11.07	35.552	44.602	14.1
						RPD= 13.2	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-104-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTK1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	14.006		
Aroclor-1260	2	10.36	10.33	10.39	7.9245		
	3	10.47	10.44	10.50	10.266		
COLUMN 1	4	10.75	10.72	10.78	8.4394		
	5	11.17	11.14	11.20	8.4291	9.8130	
	1	9.73	9.68	9.78	14.207		
	2	10.02	9.97	10.07	15.242		
	3	10.23	10.18	10.28	5.6106		
COLUMN 2	4	10.55	10.49	10.59	8.8167		
	5	11.03	10.97	11.07	8.6299	10.501	7.0
						RPD= 6.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-105-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTT1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	93.489		
Aroclor-1260	2	10.36	10.33	10.39	62.182		
	3	10.47	10.44	10.50	70.854		
COLUMN 1	4	10.75	10.72	10.78	61.622		
	5	11.18	11.14	11.20	61.598	69.949	
	1	9.72	9.68	9.78	83.798		
	2	10.02	9.97	10.07	89.722		
	3	10.23	10.18	10.28	37.258		
COLUMN 2	4	10.55	10.49	10.59	53.752		
	5	11.02	10.97	11.07	56.553	64.217	8.9
						RPD= 8.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-105-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTV1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	66.087		
Aroclor-1260	2	10.36	10.33	10.39	31.330		
	3	10.47	10.44	10.50	42.181		
COLUMN 1	4	10.75	10.72	10.78	39.433		
	5	11.17	11.14	11.20	37.515	43.309	
	1	9.73	9.68	9.78	71.553		
	2	10.02	9.97	10.07	62.809		
	3	10.23	10.18	10.28	21.862		
COLUMN 2	4	10.55	10.49	10.59	33.094		
	5	11.02	10.97	11.07	36.722	45.208	4.4
						RPD= 4.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-105-04

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTW1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.36	10.33	10.39	33.209		
Aroclor-1260	2	10.47	10.44	10.50	40.401		
	3	10.75	10.72	10.78	36.335		
COLUMN 1	4	11.17	11.14	11.20	35.789		
	5					36.434	
	1	9.73	9.68	9.78	60.413		
	2	10.02	9.97	10.07	59.210		
	3	10.23	10.18	10.28	20.220		
COLUMN 2	4	10.55	10.49	10.59	30.630		
	5	11.02	10.97	11.07	33.089	40.712	11.7
						RPD= 11.1	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-105-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTP1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	59.440		
Aroclor-1260	2	10.36	10.33	10.39	48.364		
	3	10.47	10.44	10.50	54.924		
COLUMN 1	4	10.75	10.72	10.78	44.904		
	5	11.17	11.14	11.20	44.172	50.361	
	1	9.73	9.68	9.78	46.652		
	2	10.02	9.97	10.07	55.953		
	3	10.23	10.18	10.28	30.175		
COLUMN 2	4	10.55	10.49	10.59	41.110		
	5	11.02	10.97	11.07	47.225	44.223	13.9
						RPD= 13.0	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-DUP1-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRM1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	316.12		
Aroclor-1260	2	10.02	9.97	10.07	223.67		
	3	10.23	10.18	10.28	58.213		
COLUMN 1	4	10.54	10.49	10.59	108.44		
	5	11.02	10.97	11.07	113.12	163.91	
	1	10.36	10.33	10.39	78.634		
	2	10.47	10.44	10.50	139.56		
	3	10.75	10.72	10.78	128.16		
COLUMN 2	4	11.17	11.14	11.20	144.74		
	5					122.78	33.5
						RPD= 28.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-DUP3-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VTX1AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	8.6852		
Aroclor-1260	2	10.36	10.33	10.39	5.2602		
	3	10.47	10.44	10.50	6.8065		
COLUMN 1	4	10.75	10.72	10.78	5.9447		
	5	11.17	11.14	11.20	5.7329	6.4859	
	1	9.73	9.68	9.78	8.8353		
	2	10.02	9.97	10.07	9.4242		
	3	10.23	10.18	10.28	3.7175		
COLUMN 2	4	10.55	10.49	10.59	5.6127		
	5	11.02	10.97	11.07	5.7104	6.6600	2.7
						RPD= 2.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-86-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VT11AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	7.92	7.89	7.95	1364.8		
Aroclor-1248	2	8.14	8.12	8.18	1047.9		
	3	8.63	8.61	8.67	1182.3		
COLUMN 1	4	9.78	9.77	9.83	1556.6		
	5					1287.9	
	1	8.00	7.96	8.06	1101.4		
	2	8.36	8.32	8.42	1220.7		
	3	9.37	9.33	9.43	769.49		
COLUMN 2	4	9.52	9.48	9.58	1406.7		
	5					1124.6	14.5
						RPD= 13.5	
	1	9.98	9.96	10.02	1227.1		
Aroclor-1260	2	10.35	10.33	10.39	958.35		
	3	10.74	10.72	10.78	1635.7		
COLUMN 1	4						
	5					1273.7	
	1	9.72	9.68	9.78	857.75		
	2	10.02	9.97	10.07	927.97		
	3	10.23	10.18	10.28	717.31		
COLUMN 2	4	10.54	10.49	10.59	1425.4		
	5	11.02	10.97	11.07	932.18	972.11	31.0
						RPD= 26.9	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-86-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VT21AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	7.92	7.89	7.95	234.06		
Aroclor-1248	2	8.14	8.12	8.18	85.665		
	3	8.63	8.61	8.67	129.97		
COLUMN 1	4						
	5					149.90	
	1	8.00	7.96	8.06	187.98		
	2	8.36	8.32	8.42	217.05		
	3	9.37	9.33	9.43	217.55		
COLUMN 2	4						
	5					207.53	38.4
						RPD= 32.2	
	1	10.46	10.44	10.50	141.37		
Aroclor-1260	2	10.74	10.72	10.78	100.26		
	3	11.17	11.14	11.20	111.93		
COLUMN 1	4						
	5					117.85	
	1	9.72	9.68	9.78	103.75		
	2	10.02	9.97	10.07	120.41		
	3	10.23	10.18	10.28	87.441		
COLUMN 2	4	10.54	10.49	10.59	78.245		
	5	11.02	10.97	11.07	83.762	94.723	24.4
						RPD= 21.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-86-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VT01AD Date(s) Analyzed: 08/30/10 08/30/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	140.53		
Aroclor-1260	2	10.36	10.33	10.39	146.84		
	3	10.47	10.44	10.50	100.24		
COLUMN 1	4	10.75	10.72	10.78	100.54		
	5	11.17	11.14	11.20	100.73	117.77	
	1	9.72	9.68	9.78	84.934		
	2	10.02	9.97	10.07	126.82		
	3	10.23	10.18	10.28	74.816		
COLUMN 2	4	10.54	10.49	10.59	68.876		
	5	11.02	10.97	11.07	76.497	86.388	36.3
						RPD= 30.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-87-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRT1AK Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	8.00	7.96	8.06	342.56		
Aroclor-1248	2	8.36	8.32	8.42	380.73		
	3	9.37	9.33	9.43	170.16		
COLUMN 1	4						
	5					297.82	
	1	7.92	7.89	7.95	383.12		
	2	8.14	8.12	8.18	251.32		
	3	8.63	8.61	8.67	238.48		
COLUMN 2	4						
	5					290.98	2.4
						RPD= 2.3	
	1	9.72	9.68	9.78	379.50		
Aroclor-1260	2	10.02	9.97	10.07	423.42		
	3	10.23	10.18	10.28	271.51		
COLUMN 1	4	10.54	10.49	10.59	275.24		
	5	11.02	10.97	11.07	306.96	331.33	
	1	9.99	9.96	10.02	546.30		
	2	10.36	10.33	10.39	500.45		
	3	10.47	10.44	10.50	381.24		
COLUMN 2	4	10.75	10.72	10.78	353.32		
	5	11.17	11.14	11.20	380.53	432.37	30.5
						RPD= 26.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-87-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRX1AQ Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	298.00		
Aroclor-1260	2	10.02	9.97	10.07	328.88		
	3	10.23	10.18	10.28	251.37		
COLUMN 1	4	10.54	10.49	10.59	246.75		
	5	11.02	10.97	11.07	259.51	276.90	
	1	10.47	10.44	10.50	371.94		
	2	10.75	10.72	10.78	345.44		
	3	11.17	11.14	11.20	400.28		
COLUMN 2	4						
	5					372.55	34.5
						RPD= 29.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-87-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRR1AE Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	115.33		
Aroclor-1260	2	10.02	9.97	10.07	151.48		
	3	10.23	10.18	10.28	87.077		
COLUMN 1	4	10.54	10.49	10.59	101.17		
	5	11.02	10.97	11.07	105.59	112.13	
	1	9.99	9.96	10.02	171.84		
	2	10.36	10.33	10.39	158.20		
	3	10.47	10.44	10.50	134.81		
COLUMN 2	4	10.75	10.72	10.78	118.16		
	5	11.17	11.14	11.20	127.31	142.06	26.7
						RPD= 23.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-93-01

Lab Name: .TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRD1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	235.26		
Aroclor-1260	2	10.23	10.18	10.28	126.08		
	3	10.54	10.49	10.59	135.27		
COLUMN 1	4	11.02	10.97	11.07	146.44		
	5					160.76	
	1	9.99	9.96	10.02	272.79		
	2	10.36	10.33	10.39	171.25		
	3	10.47	10.44	10.50	165.93		
COLUMN 2	4	10.75	10.72	10.78	163.39		
	5	11.17	11.14	11.20	168.80	188.43	17.2
						RPD= 15.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-93-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRE1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	104.64		
Aroclor-1260	2	10.02	9.97	10.07	112.35		
	3	10.23	10.18	10.28	35.219		
COLUMN 1	4	10.54	10.49	10.59	53.779		
	5	11.02	10.97	11.07	54.494	72.096	
	1	9.99	9.96	10.02	132.92		
	2	10.36	10.33	10.39	62.115		
	3	10.47	10.44	10.50	69.625		
COLUMN 2	4	10.75	10.72	10.78	59.077		
	5	11.17	11.14	11.20	69.060	78.558	9.0
						RPD= 8.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-93-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VQ91AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	57.406		
Aroclor-1260	2	10.02	9.97	10.07	65.597		
	3	10.23	10.18	10.28	39.254		
COLUMN 1	4	10.54	10.49	10.59	47.531		
	5	11.02	10.97	11.07	51.761	52.310	
	1	9.99	9.96	10.02	64.610		
	2	10.36	10.33	10.39	49.173		
	3	10.47	10.44	10.50	52.041		
COLUMN 2	4	10.75	10.72	10.78	45.819		
	5	11.17	11.14	11.20	47.099	51.748	1.1
						RPD= 1.1	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-95-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRJ1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.02	9.97	10.07	352.04		
Aroclor-1260	2	10.23	10.18	10.28	90.860		
	3	10.55	10.49	10.59	165.55		
COLUMN 1	4	11.02	10.97	11.07	182.85		
	5					197.82	
	1	10.36	10.33	10.39	127.98		
	2	10.47	10.44	10.50	217.92		
	3	10.75	10.72	10.78	200.79		
COLUMN 2	4	11.17	11.14	11.20	234.30		
	5					195.25	1.3
						RPD= 1.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-95-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRK1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.73	9.68	9.78	154.88		
Aroclor-1260	2	10.02	9.97	10.07	149.74		
	3	10.23	10.18	10.28	47.984		
COLUMN 1	4	10.55	10.49	10.59	77.028		
	5	11.02	10.97	11.07	80.738	102.07	
	1	10.36	10.33	10.39	93.152		
	2	10.47	10.44	10.50	105.23		
	3	10.75	10.72	10.78	89.281		
COLUMN 2	4	11.17	11.14	11.20	107.72		
	5					98.846	3.3
						RPD= 3.2	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-95-04

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRL1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.73	9.68	9.78	7.2674		
Aroclor-1260	2	10.02	9.97	10.07	8.2016		
	3	10.23	10.18	10.28	2.7955		
COLUMN 1	4	10.54	10.49	10.59	3.5530		
	5	11.02	10.97	11.07	4.7947	5.3225	
	1	9.99	9.96	10.02	9.1974		
	2	10.36	10.33	10.39	5.0311		
	3	10.47	10.44	10.50	5.2709		
COLUMN 2	4	10.75	10.72	10.78	3.4661		
	5	11.17	11.14	11.20	4.5691	5.5069	3.5
						RPD= 3.4	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-95-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VRH1AD Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	290.37		
Aroclor-1260	2	10.02	9.97	10.07	263.16		
	3	10.23	10.18	10.28	100.60		
COLUMN 1	4	10.54	10.49	10.59	152.02		
	5	11.02	10.97	11.07	162.71	193.77	
	1	9.99	9.96	10.02	285.54		
	2	10.36	10.33	10.39	137.84		
	3	10.47	10.44	10.50	184.26		
COLUMN 2	4	10.75	10.72	10.78	161.82		
	5	11.17	11.14	11.20	194.69	192.83	0.5
						RPD= 0.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT	JOB NUMBER		
Middle River Center	SDG COH190588		
SUBJECT	Sample Calculations		
BASED ON		DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE
John Cognetti			10-1-10

Sample SD-92-SS; Upyrene

$$\frac{31899}{376912} * 2 * 1 * \frac{500}{2 * 30} * 1 * \frac{8}{1.14166} = 9.88 \text{ ug/kg}$$

$$\frac{9.88 \text{ ug/kg}}{0.53} = 18.6 \text{ ug/kg pyrene}$$

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: SD-92-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H190588-001	**Work Order #...:**	L5VQ71AC	**Matrix.....:**	SOLID
Date Sampled...:	08/17/10 15:10	**Date Received..:**	08/19/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/25/10		
Prep Batch #...:	0235285	**Analysis Time..:**	17:51		
Dilution Factor:	1	**Initial Wgt/Vol:**	30 mL	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	47	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**2.8 J**	**13**	**ug/kg**	**1.1**
Acenaphthylene	ND	13	ug/kg	1.4
Acenaphthene	ND	13	ug/kg	1.2
Fluorene	**2.2 J**	**13**	**ug/kg**	**1.6**
Phenanthrene	**7.2 J**	**13**	**ug/kg**	**2.0**
Anthracene	**2.6 J**	**13**	**ug/kg**	**1.2**
Fluoranthene	**16**	**13**	**ug/kg**	**1.3**
Pyrene	**18**	**13**	**ug/kg**	**1.3**
Benzo(a)anthracene	**8.7 J**	**13**	**ug/kg**	**1.6**
Chrysene	**9.1 J**	**13**	**ug/kg**	**1.5**
Benzo(b)fluoranthene	**14**	**13**	**ug/kg**	**2.0**
Benzo(k)fluoranthene	ND	13	ug/kg	2.5
Benzo(a)pyrene	**9.4 J**	**13**	**ug/kg**	**1.2**
Indeno(1,2,3-cd)pyrene	**33**	**13**	**ug/kg**	**1.3**
Dibenzo(a,h)anthracene	ND	13	ug/kg	1.4
Benzo(ghi)perylene	**29**	**13**	**ug/kg**	**1.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	64	(28 - 108)
2-Fluorophenol	50	(28 - 107)
Phenol-d5	56	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Sample Calculation

TestAmerica Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\D\chem\731.i\V082510.b\V0825014.D
Lab Smp Id: L5VQ71AC Client Smp ID: SD-92-SS
Inj Date : 25-AUG-2010 17:51
Operator : 003200 Inst ID: 731.i
Smp Info : C0H190588-001 X2 8/23/10 soil(0235285)8270c
Misc Info : L5VQ71AC,V082510.b,827011.m,pah.sub
Comment :
Method : \\PITSVR06\D\chem\731.i\V082510.b\827011.m
Meth Date : 26-Aug-2010 01:30 piccolinov Quant Type: ISTD
Cal Date : 04-JUN-2010 08:08 Cal File: V0604IC3.D
Als bottle: 16
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: pah.sub
Target Version: 4.14
Processing Host: PITPC-502

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws)*gpc * CpndVariable

Name	Value	Description
DF	2.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
gpc	1.000	gpc correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/kg)
* 1 1,4-Dichlorobenzene-d4	152	4.488	4.497	(1.000)	142346	8.00000	
* 2 Naphthalene-d8	136	5.465	5.469	(1.000)	446408	8.00000	
* 3 Acenaphthene-d10	164	6.806	6.816	(1.000)	263342	8.00000	
* 4 Phenanthrene-d10	188	7.944	7.954	(1.000)	363747	8.00000	
* 5 Chrysene-d12	240	9.995	10.000	(1.000)	376912	8.00000	
* 6 Perylene-d12	264	11.342	11.351	(1.000)	504112	8.00000	
51 Naphthalene	128	5.481	5.485	(1.003)	5612	0.08978	1.4963
62 2-Methylnaphthalene	142	6.016	6.014	(1.101)	1785	0.04359	0.72655
63 1-Methylnaphthalene	142	Compound Not Detected.					
79 Acenaphthylene	152	Compound Not Detected.					
82 Acenaphthene	153	Compound Not Detected.					
94 Fluorene	166	7.228	7.238	(1.062)	3234	0.06993	1.1655
115 Phenanthrene	178	7.965	7.975	(1.003)	12182	0.23131	3.8552
116 Anthracene	178	8.008	8.012	(1.008)	4442	0.08206	1.3676
123 Fluoranthene	202	8.879	8.888	(1.118)	30999	0.50113	8.3521
125 Pyrene	202	9.055	9.065	(0.906)	31899	0.59305	9.8842
136 Benzo(a)Anthracene	228	9.990	9.994	(0.999)	15334	0.27911	4.6518
137 Chrysene	228	10.017	10.021	(1.002)	15566	0.29036	4.8393
141 Benzo(b)fluoranthene	252	10.936	10.940	(0.964)	34834	0.43431	7.2384
142 Benzo(k)fluoranthene	252	Compound Not Detected.					

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
124 Benzidine	+++++	+++++	40351	143236	357935	788305						
	1280605	1775699					QUAD	0.37300	3.14176	-0.06554	0.99922	
125 Pyrene	1.02574	1.09780	1.12184	1.16541	1.17507	1.14596						
	1.18337	1.21808					AVRG		1.14166		5.23791	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE _____ OF _____

CLIENT	JOB NUMBER		
Middle River Center	SDG COH190588		
SUBJECT: Sample Calculation			
BASED ON	DRAWING NUMBER		
BY: Ann Cognetti	CHECKED BY	APPROVED BY	DATE: 10-1-10

Chlordane 1260; Sample SD-101-01

$$\frac{312446}{} * \frac{10,000}{15.0} * \frac{1}{1750342} = 119.0$$

$$125952 * \frac{10000}{15} * \frac{1}{1417188} = 59.25$$

$$136137 * \frac{10000}{15} * \frac{1}{1121377} = 80.934$$

$$\frac{114254}{} * \frac{10000}{15} * \frac{1}{1049784} = 72.557$$

$$\frac{291246}{} * \frac{10000}{15} * \frac{1}{2550769} = 76.120$$

$$\frac{119.0 + 59.25 + 80.934 + 72.557 + 76.120}{5} = 81.57 \text{ ug/kg}$$

$$\frac{81.57}{0.34} = 239.9 \text{ ug/kg Chlordane 1260.}$$

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

GC Semivolatiles

Lot-Sample #...:	C0H190588-018	**Work Order #...:**	L5VR31AW	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/19/10	**MS Run #.....:**	
Prep Date.....:	08/23/10	**Analysis Date..:**	08/28/10		
Prep Batch #...:	0235283	**Analysis Time..:**	21:18		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	66	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.6
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.2
Aroclor 1242	ND	24	ug/kg	4.0
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.5
Aroclor 1260	**240**	**24**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	101	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-101-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H190588

Lab Sample ID: L5VR31AW Date(s) Analyzed: 08/28/10 08/28/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-2 ID: 0.53(mm) GC Column(2): MR-1 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.72	9.68	9.78	122.99		
Aroclor-1260	2	10.02	9.97	10.07	114.91		
	3	10.23	10.18	10.28	42.240		
COLUMN 1	4	10.54	10.49	10.59	64.958		
	5	11.02	10.97	11.07	69.500	82.919	
	1	9.99	9.96	10.02	119.00		
	2	10.36	10.33	10.39	59.250		
	3	10.47	10.44	10.50	80.934		
COLUMN 2	4	10.75	10.72	10.78	72.557		
	5	11.17	11.14	11.20	76.120	81.573	1.6
						RPD= 1.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801149.D
Report Date: 30-Aug-2010 08:23

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc14.i\08280.B\Y0801149.D
Lab Smp Id: L5VR31AW Client Smp ID: SD-101-01
Inj Date : 28-AUG-2010 21:18
Operator : 402360 Inst ID: gc14.i
Smp Info : L5VR31AW,08280.B
Misc Info : C0H190588-018
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Meth Date : 30-Aug-2010 08:23 gc14.i Quant Type: ESTD
Cal Date : 28-AUG-2010 11:27 Cal File: Y0801120.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: PITPC-106

column 2

Concentration Formula: Amt * DF * (Vt/Vi)/Ws * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract
Vi	1.000	volume injected
Ws	15.000	initial volume of sample
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ug/Kg)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
6.021	6.022	-0.001	476884	0.02203	14.686		
1 Aroclor-1221					CAS #: 11104-28-2		
Peaks not detected for Quant. or Qual. signal(s).							
4 Aroclor-1016					CAS #: 12674-11-2		
Peaks not detected for Quant. or Qual. signal(s).							
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801149.D
Report Date: 30-Aug-2010 08:23

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.988	9.990	-0.002	312446	0.17851	119.00	0.00- 0.00	0.00
10.361	10.359	0.002	125952	0.08887	59.250	115.86- 115.86	0.00
10.468	10.468	0.000	136137	0.12140	80.934	136.91- 136.91	0.00
10.748	10.748	0.000	114254	0.10884	72.557	140.00- 140.00	0.00
11.173	11.174	-0.001	291246	0.11418	76.120	128.33- 128.33	0.00
Average of Peak Concentrations =					81.573		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.038	13.038	0.000	220328	0.02015	13.432		

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**October 22, 2010**
FROM:	**MEGAN CARSON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-SELECT METALS, TOC, AND AVS/SEM**
LOCKHEED MIDDLE RIVER CENTER
SDG C0H190588

SAMPLES: 40/Sediment/

SD-101-01	SD-101-02	SD-101-04
SD-101-SS	SD-102-01	SD-102-02
SD-102-04	SD-102-SS	SD-103-01
SD-103-02	SD-103-SS	SD-104-01
SD-104-02	SD-104-04	SD-104-SS
SD-105-01	SD-105-02	SD-105-04
SD-105-SS	SD-86-01	SD-86-02
SD-86-04	SD-86-SS	SD-87-01
SD-87-02	SD-87-04	SD-87-SS
SD-92-01	SD-92-SS	SD-93-01
SD-93-02	SD-93-04	SD-93-SS
SD-95-01	SD-95-02	SD-95-04
SD-95-SS	SD-DUP1-01	SD-DUP2-04
SD-DUP3-SS		

Overview

The sample set for Middle River Complex, SDG C0H190588, consists of forty (40) sediment environmental samples. This SDG contained three field duplicate pairs: SD-DUP1-01/SD-95-01, SD-DUP2-04/SD-102-04, and SD-DUP3-SS/SD-104-SS.

All samples were analyzed for select metals including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Samples SD-101-01, SD-101-02, SD-101-04, SD-101-SS, SD-87-01, SD-87-02, SD-87-04, and SD-87-SS were analyzed for acid volatile sulfides (AVS), total organic carbons (TOC), simultaneously extracted metals (SEM) cadmium, chromium, copper, lead, nickel, silver, and zinc. The samples were collected by Tetra Tech NUS on August 17th and 18th, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7471A. AVS/SEM analyses were conducted using method EPA AVS/SEM. TOC analyses were conducted using method EPA Llyod Kahn.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

- Sample SD-86-02 had a percent recovery < 60% for the internal standard scandium. Positive results for beryllium, chromium, nickel, copper, arsenic, selenium, and zinc were qualified as estimated (J).

Notes

The following samples were analyzed at dilutions:

Sample	Dilution Factor	Analytes
SD-101-01	2X	TOC
SD-101-02	2X	TOC
SD-101-SS	2X	TOC
SD-87-01	2X	TOC
	5X	Zinc
SD-87-02	2X	TOC
	5X	Zinc
SD-87-SS	2X	TOC and Zinc

The CRDL standard analyzed on 8/30/10 had a percent recovery > 110% for cadmium and zinc and <90% for copper. All samples in the SDG were affected. No validation actions were warranted as positive results were all >2X CRDL.

The CRDL standard analyzed on 8/31/10 had a percent recovery >110% for chromium. All samples analyzed for SEM metals were affected. No validation action was warranted as all positive result were >2X CRDL.

Executive Summary

Laboratory Performance: Preparation and calibration blanks resulted in the qualification on several samples. ICP internal standard recoveries for SD-103-02 and SD-85-02 resulted in the qualification of sample results. Percent soild results for samples SD-101-SS, SD-102-SS, SD-105-01, SD-105-SS, and SD-95-SS were <30% and resulted in qualification of all sample results. Serial dilution non-compliances for sample SD-102-SS resulted in the qualification of sample results.

Other Factors Affecting Data Quality: Matrix spike noncompliances for lead, chromium, and antimony resulted in the qualification of sample results.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Minor Problems-

- The following contaminants were detected in blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Chromium [1]	0.01 mg/kg	0.05 mg/kg
Antimony [2]	0.00029 mg/L	0.0725 mg/kg
Thallium [2]	0.00003 mg/L	0.0075 mg/kg
Chromium [3]	0.001 umole/g	0.005 umole/g
Copper [3]	0.0025 umole/g	0.012 umole/g
Nickel [3]	0.00066 umole/g	0.003 umole/g
Zinc [3]	0.019 umole/g	0.095 umole/g
Cadmium [4]	0.2 ug/L	0.0002 umole/g
Nickel [4]	3.9 ug/L	0.0083 umole/g

[1] Maximum concentration present in a preparation blank affecting samples in preparation batch 0242192.
[2] Maximum concentration present in a continuing calibration blank affecting all samples analyzed for select metals.
[3] Maximum concentration present in a preparation blank affecting samples in preparation batch 0243148.
[4] Maximum concentration present in a continuing calibration blank affecting all samples analyzed for SEM metals.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for were qualified "B" as a result of laboratory blank contamination.

- The serial dilution for sample SD-102-SS had a percent difference > 10% for antimony, beryllium, and silver. Samples in preparation batch 0242192 were affected. Positive results were qualified as estimated (J).

- The matrix spike and matrix spike duplicate for sample SD-92-SS had a percent recovery <75% for antimony and a percent recovery >125% for lead. Samples in preparation batch 0242185 were affected. Positive results for antimony were qualified as biased low (L) and estimated (J) due to conflicting directional bias. Positive results for lead were qualified as biased high (K) and estimated (J) due to conflicting directional bias.

- The matrix spike and matrix spike duplicate for sample SD-102-SS had a percent recovery <75% for antimony and a percent recovery >125% for chromium. Samples in preparation batch 0242192 were affected. Positive results for antimony were qualified estimated (J) due to conflicting directional bias. Positive results for chromium were qualified as biased high (K) and estimated (J) due to conflicting directional bias.

- The following samples had percent solid recoveries <30%: SD-101-SS, SD-102-SS, SD-105-SS, and SD-95-SS. Positive results were qualified as estimated (J).

- Sample SD-103-02 had percent recovery >120% for internal standards terbium (MW 159) and holmium (MW 165). Positive results for thallium and lead were qualified as estimated (J). Positive results for antimony were not qualified as sample results were previously qualified due to blank contamination.

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's r < 0.995
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient r < 0.995
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	SD-101-01			SD-101-02			SD-101-04			SD-101-SS		
SDG: C0H190588	LAB_ID	C0H190588018			C0H190588019			C0H190588020			C0H190588017		
FRACTION: AVS/SEM	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UMOLES/G			UMOLES/G			UMOLES/G			UMOLES/G		
	PCT_SOLIDS	34.0			35.0			58.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACID VOLATILE SULFIDE		10.5			4.4			0.33	J	P	44.6	J	Y
CADMIUM		0.084			0.27			0.012			0.033	J	Y
CHROMIUM		1.5			4.9			0.29			1	J	Y
COPPER		0.41			0.43			0.053			0.48	J	Y
LEAD		0.51			0.47			0.057			0.44	J	Y
NICKEL		0.17			0.21			0.035			0.2	J	Y
SILVER		0.004			0.0067			0.001	J	P	0.0011	J	PY
ZINC		3.4			4.2			0.46			3.7	J	Y

PROJ_NO: 02903	NSAMPLE	SD-87-01			SD-87-02			SD-87-04			SD-87-SS		
SDG: C0H190588	LAB_ID	C0H190588014			C0H190588015			C0H190588016			C0H190588013		
FRACTION: AVS/SEM	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UMOLES/G			UMOLES/G			UMOLES/G			UMOLES/G		
	PCT_SOLIDS	54.0			48.0			40.0			37.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACID VOLATILE SULFIDE		2.4			4.4			0.38	U		18.4		
CADMIUM		0.48			1.4			0.035			0.25		
CHROMIUM		4.6			15.4			0.52			1.6		
COPPER		0.18			0.32			0.26			0.011	B	A
LEAD		0.73			1			0.2			0.52		
NICKEL		0.16			0.29			0.13			0.14		
SILVER		0.001	J	P	0.0048			0.0022	J	P	0.00036	U	
ZINC		6.9			9.3			1.2			6.8		

PROJ_NO: 02903	NSAMPLE	SD-101-01			SD-101-02			SD-101-04			SD-101-SS		
SDG: C0H190588	LAB_ID	C0H190588018			C0H190588019			C0H190588020			C0H190588017		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	34.0			35.0			58.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.59	L	D	0.86	L	D	0.16	J	DP	0.61	J	DY
ARSENIC		8.7			8.7			3.7			10	J	Y
BERYLLIUM		1.8			2.1			0.95			1.7	J	Y
CADMIUM		12.6			44.7			1.9			4.6	J	Y
CHROMIUM		247			719			56.7			133	J	DY
COPPER		98.8			83.3			13.3			156	J	Y
LEAD		158	K	D	169	K	D	19.8	K	D	120	J	DY
MERCURY		0.6			1.6			0.055			0.45	J	Y
NICKEL		39.8			46.6			12.1			37.7	J	Y
SELENIUM		1.7			2.2			0.64			1.8	J	Y
SILVER		3.1			12.8			0.41			1.6	J	Y
THALLIUM		0.27			0.31			0.094			0.24	J	Y
ZINC		371			479			57.7			350	J	Y

PROJ_NO: 02903	NSAMPLE	SD-102-01			SD-102-02			SD-102-04			SD-102-SS		
SDG: C0H190588	LAB_ID	C0H190588022			C0H190588023			C0H190588024			C0H190588021		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	31.0			32.0			37.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.68	J	DI	1	J	DI	0.45	J	DI	0.83	J	DIY
ARSENIC		9.8			9.3			7.8			10.2	J	Y
BERYLLIUM		2.1	J	I	2.2	J	I	2	J	I	1.8	J	IY
CADMIUM		11.2			34.9			10			4.6	J	Y
CHROMIUM		251	K	D	647	K	D	209	K	D	136	J	DY
COPPER		111			99.5			32.8			151	J	Y
LEAD		168			207			56.8			123	J	Y
MERCURY		0.73			1.6			0.18			0.5	J	Y
NICKEL		45.1			54.5			30.4			37.3	J	Y
SELENIUM		1.8			2.3			1.4			1.8	J	Y
SILVER		4.3	J	I	18.4	J	I	2.3	J	I	1.7	J	IY
THALLIUM		0.3			0.36			0.24			0.26	J	Y
ZINC		406			497			176			337	J	Y

PROJ_NO: 02903	NSAMPLE	SD-103-01			SD-103-02			SD-103-SS			SD-104-01		
SDG: C0H190588	LAB_ID	C0H190588026			C0H190588027			C0H190588025			C0H190588029		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	60.0			82.0			55.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.057	B	A	0.057	B	A	0.22	J	DI	0.094	B	A
ARSENIC		2.3			1.4			4.2			5.6		
BERYLLIUM		0.73	J	I	0.22	J	I	0.78	J	I	1.6	J	I
CADMIUM		0.19			0.13			0.47			0.42		
CHROMIUM		14.1	K	D	15.7	K	D	22			31.7	K	D
COPPER		7.8			22.1			16.5			22.1		
LEAD		5.9			6.9	J	N	13.1			17.1		
MERCURY		0.019	J	P	0.0066	U		0.039			0.048		
NICKEL		10.5			0.67			12.8			23		
SELENIUM		0.51			0.81			0.64			1.1		
SILVER		0.02	J	IP	0.0088	J	IP	0.064	J	IP	0.074	J	IP
THALLIUM		0.096			0.059	J	NP	0.12			0.2		
ZINC		33.4			2			52.4			72.3		

PROJ_NO: 02903	NSAMPLE	SD-104-02			SD-104-04			SD-104-SS			SD-105-01		
SDG: C0H190588	LAB_ID	C0H190588030			C0H190588031			C0H190588028			C0H190588033		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	36.0			44.0			35.0			30.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.095	B	A	0.074	B	A	0.5	J	DI	0.65	J	DI
ARSENIC		6			5.4			9			10.8		
BERYLLIUM		1.7	J	I	1.4	J	I	1.8	J	I	1.9		
CADMIUM		0.39			0.32			8.8			5.7		
CHROMIUM		35.9	K	D	27.7	K	D	236	K	D	153	K	D
COPPER		18.9			13.7			60.4			142		
LEAD		13.5			11.6			117			144		
MERCURY		0.043	J	P	0.032	J	P	0.5			0.56		
NICKEL		22.7			20			34.4			44.3		
SELENIUM		1.1			0.89			1.9			1.9		
SILVER		0.064	J	IP	0.044	J	IP	2	J	I	2.2	J	I
THALLIUM		0.2			0.15			0.24			0.26		
ZINC		72.3			67.7			238			389		

PROJ_NO: 02903	NSAMPLE	SD-105-02			SD-105-04			SD-105-SS			SD-86-01		
SDG: C0H190588	LAB_ID	C0H190588034			C0H190588035			C0H190588032			C0H190588038		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	33.0			35.0			29.0			55.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.75	J	DI	0.96	J	DI	0.64	J	DIY	2.2	J	DI
ARSENIC		9.2			8.3			37.2	J	Y	4.6		
BERYLLIUM		2.1	J	I	1.9	J	I	1.7	J	IY	0.99	J	I
CADMIUM		10.9			33.6			3	J	Y	69		
CHROMIUM		260	K	D	597	K	D	150	J	DY	718	K	D
COPPER		113			84.1			183	J	Y	84.6		
LEAD		182			163			114	J	Y	211		
MERCURY		0.75			1.5			0.41	J	Y	0.31		
NICKEL		47.4			47.5			37.4	J	Y	31.6		
SELENIUM		2.1			2.1			1.8	J	Y	0.95		
SILVER		4	J	I	8.9	J	I	1.3	J	IY	1.8	J	I
THALLIUM		0.28			0.3			0.23	J	Y	0.12		
ZINC		418			436			334	J	Y	452		

PROJ_NO: 02903	NSAMPLE	SD-86-02			SD-86-04			SD-86-SS			SD-87-01		
SDG: C0H190588	LAB_ID	C0H190588039			C0H190588040			C0H190588037			C0H190588014		
FRACTION: M	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	48.0			49.0			41.0			54.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		5.3	J	DI	0.16	J	DIP	1.9	J	DI	1.3	L	D
ARSENIC		6.6	J	N	3.8			6			4.2		
BERYLLIUM		1.9	J	IN	1.6	J	I	1.4	J	I	1		
CADMIUM		296			2.9			41.2			64.7		
CHROMIUM		2060	J	DN	52.4	K	D	296	K	D	541		
COPPER		147	J	N	18.6			97.1			88.7		
LEAD		250			14			202			205	K	D
MERCURY		0.37			0.05			0.27			0.37		
NICKEL		59.7	J	N	27.1			35.5			31.5		
SELENIUM		1.4	J	N	0.75			1.3			0.88		
SILVER		3.2	J	I	0.068	J	IP	2.7	J	I	2.7		
THALLIUM		0.19			0.16			0.17			0.16		
ZINC		1570	J	N	71.4			595			497		

PROJ_NO: 02903 SDG: C0H190588 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-87-02			SD-87-04			SD-87-SS			SD-92-01		
	LAB_ID	C0H190588015			C0H190588016			C0H190588013			C0H190588002		
	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/17/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	48.0			40.0			37.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.4	L	D	0.27	L	D	1	L	D	0.13	J	DP
ARSENIC		5.3			5.1			6.2			7.2		
BERYLLIUM		1.5			2.1			1.3			1.8		
CADMIUM		207			11.4			32.9			0.2		
CHROMIUM		1530			114			277			16.1		
COPPER		112			33.1			108			16.6		
LEAD		288	K	D	35.6	K	D	142	K	D	3.6	K	D
MERCURY		0.76			0.25			0.3			0.0082	U	
NICKEL		43.8			29.1			32.8			16.9		
SELENIUM		1.3			1.1			1.2			0.66		
SILVER		8.5			0.85			1.4			0.022	J	P
THALLIUM		0.23			0.26			0.2			0.063	J	P
ZINC		762			139			524			46.6		

PROJ_NO: 02903	NSAMPLE	SD-92-SS			SD-93-01			SD-93-02			SD-93-04		
SDG: C0H190588	LAB_ID	C0H190588001			C0H190588004			C0H190588005			C0H190588006		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	53.0			67.0			52.0			60.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.13	B	A	0.29	L	D	0.46	L	D	0.33	L	D
ARSENIC		3.9			3.9			5.5			3.3		
BERYLLIUM		1.5			1			1.6			1.9		
CADMIUM		0.21			2.7			17.9			4.5		
CHROMIUM		15			37.5			218			113		
COPPER		12.8			23.3			42.9			22.5		
LEAD		5.1	K	D	36.6	K	D	73	K	D	29.8	K	D
MERCURY		0.024	J	P	0.11			1.1			0.16		
NICKEL		12.5			13.9			27.4			20.1		
SELENIUM		0.68			0.6			1.2			0.92		
SILVER		0.033	J	P	0.55			8.1			2.4		
THALLIUM		0.066	J	P	0.07	J	P	0.17			0.11		
ZINC		40.4			125			213			114		

PROJ_NO: 02903	NSAMPLE	SD-93-SS			SD-95-01			SD-95-02			SD-95-04		
SDG: C0H190588	LAB_ID	C0H190588003			C0H190588008			C0H190588009			C0H190588010		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	70.0			32.0			34.0			47.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.27	L	D	0.67	L	D	0.92	L	D	0.52	L	D
ARSENIC		4.2			8.3			8.8			5.5		
BERYLLIUM		0.81			2.1			2			2.1		
CADMIUM		1.1			12			31.1			9.3		
CHROMIUM		17.9			241			534			194		
COPPER		21.8			90.9			100			32.9		
LEAD		21.5	K	D	174	K	D	191	K	D	43.6	K	D
MERCURY		0.048			0.66			2.7			0.35		
NICKEL		10.4			42.7			49.7			26.4		
SELENIUM		0.42			1.9			2.1			1.3		
SILVER		0.19			4.6			26.8			4.7		
THALLIUM		0.053	J	P	0.28			0.31			0.18		
ZINC		100			382			456			162		

PROJ_NO: 02903	NSAMPLE	SD-95-SS			SD-DUP1-01			SD-DUP2-04			SD-DUP3-SS		
SDG: C0H190588	LAB_ID	C0H190588007			C0H190588011			C0H190588012			C0H190588036		
FRACTION: M	SAMP_DATE	8/17/2010			8/17/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	27.0			32.0			37.0			34.0		
	DUP_OF				SD-95-01			SD-102-04			SD-104-SS		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	J	DY	0.7	L	D	0.29	L	D	0.59	J	DI
ARSENIC		8.4	J	Y	8.4			7.6			9.7		
BERYLLIUM		1.9	J	Y	2.2			2			2	J	I
CADMIUM		7.7	J	Y	12.3			6.7			7.1		
CHROMIUM		165	J	Y	250			158			230	K	D
COPPER		96.9	J	Y	91.4			28.9			64.4		
LEAD		118	J	DY	177	K	D	43.4	K	D	130		
MERCURY		0.54	J	Y	0.62			0.21			0.46		
NICKEL		37.6	J	Y	43.4			28.6			37.4		
SELENIUM		1.7	J	Y	2.1			1.3			2.2		
SILVER		3.7	J	Y	4.8			1.7			1.7	J	I
THALLIUM		0.25	J	Y	0.3			0.21			0.26		
ZINC		360	J	Y	386			151			248		

PROJ_NO: 02903	NSAMPLE	SD-101-01			SD-101-02			SD-101-SS			SD-87-01		
SDG: C0H190588	LAB_ID	C0H190588018			C0H190588019			C0H190588017			C0H190588014		
FRACTION: MISC	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	34.0			35.0			24.0			54.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		26000			28400			50300	J	Y	28800		

PROJ_NO: 02903 SDG: C0H190588 FRACTION: MISC MEDIA: SEDIMENT	NSAMPLE	SD-87-02			SD-87-SS		
	LAB_ID	C0H190588015			C0H190588013		
	SAMP_DATE	8/18/2010			8/18/2010		
	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	48.0			37.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		28700			58100		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

TOTAL Metals

Lot-Sample #...: C0H190588-018
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.60	0.048	mg/kg	SW846 7471A	08/25/10	L5VR31AX
		Dilution Factor: 0.5		Analysis Time..: 08:48	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.016	
Prep Batch #...: 0242185						
Silver	3.1	0.15	mg/kg	SW846 6020	08/30/10	L5VR31A0
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0057	
Arsenic	8.7	0.15	mg/kg	SW846 6020	08/30/10	L5VR31A1
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.026	
Beryllium	1.8	0.15	mg/kg	SW846 6020	08/30/10	L5VR31A2
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Cadmium	12.6	0.15	mg/kg	SW846 6020	08/30/10	L5VR31A3
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Chromium	247	0.29	mg/kg	SW846 6020	08/30/10	L5VR31A4
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0089	
Copper	98.8	0.29	mg/kg	SW846 6020	08/30/10	L5VR31AA
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.048	
Nickel	39.8	0.15	mg/kg	SW846 6020	08/30/10	L5VR31AC
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.017	
Lead	158	0.15	mg/kg	SW846 6020	08/30/10	L5VR31AD
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0056	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

TOTAL Metals

Lot-Sample #...: C0H190588-018 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.59	0.29	mg/kg	SW846 6020	08/30/10	L5VR31AE
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0038	
Selenium	1.7	0.73	mg/kg	SW846 6020	08/30/10	L5VR31AF
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.073	
Thallium	0.27	0.15	mg/kg	SW846 6020	08/30/10	L5VR31AG
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0029	
Zinc	371	0.73	mg/kg	SW846 6020	08/30/10	L5VR31AH
		Dilution Factor: 0.5		Analysis Time..: 22:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.095	
Prep Batch #...: 0243148						
Silver	0.0040	0.0034	umoles/gm	EPA SEM	08/31/10	L5VR31AK
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00039	
Chromium	1.5 J	0.0070	umoles/gm	EPA SEM	08/31/10	L5VR31AJ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00061	
Cadmium	0.084	0.0032	umoles/gm	EPA SEM	08/31/10	L5VR31AL
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00011	
Copper	0.41 J	0.029	umoles/gm	EPA SEM	08/31/10	L5VR31AM
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0026	
Nickel	0.17 J	0.050	umoles/gm	EPA SEM	08/31/10	L5VR31AN
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0014	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-101-01

TOTAL Metals

Lot-Sample #...: C0H190588-018 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.51	0.0021	umoles/gm	EPA SEM	08/31/10	L5VR31AP
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00070	
Zinc	3.4 J	0.11	umoles/gm	EPA SEM	08/31/10	L5VR31AQ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0083	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-02

TOTAL Metals

Lot-Sample #...: C0H190588-019
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 65

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	1.6	0.048	mg/kg	SW846 7471A	08/25/10	L5VR41AX
		Dilution Factor: 0.5		Analysis Time..: 08:49	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.016	
Prep Batch #...: 0242185						
Silver	12.8	0.14	mg/kg	SW846 6020	08/30/10	L5VR41A0
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0056	
Arsenic	8.7	0.14	mg/kg	SW846 6020	08/30/10	L5VR41A1
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.026	
Beryllium	2.1	0.14	mg/kg	SW846 6020	08/30/10	L5VR41A2
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Cadmium	44.7	0.14	mg/kg	SW846 6020	08/30/10	L5VR41A3
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Chromium	719	0.29	mg/kg	SW846 6020	08/30/10	L5VR41A4
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0088	
Copper	83.3	0.29	mg/kg	SW846 6020	08/30/10	L5VR41AA
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.048	
Nickel	46.6	0.14	mg/kg	SW846 6020	08/30/10	L5VR41AC
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.016	
Lead	169	0.14	mg/kg	SW846 6020	08/30/10	L5VR41AD
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0055	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-02

TOTAL Metals

Lot-Sample #...: C0H190588-019 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.86	0.29	mg/kg	SW846 6020	08/30/10	L5VR41AE
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0038	
Selenium	2.2	0.72	mg/kg	SW846 6020	08/30/10	L5VR41AF
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.073	
Thallium	0.31	0.14	mg/kg	SW846 6020	08/30/10	L5VR41AG
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0029	
Zinc	479	0.72	mg/kg	SW846 6020	08/30/10	L5VR41AH
		Dilution Factor: 0.5		Analysis Time..: 22:18	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.094	
Prep Batch #...: 0243148						
Silver	0.0067	0.0033	umoles/gm	EPA SEM	08/31/10	L5VR41AK
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00039	
Chromium	4.9 J	0.0069	umoles/gm	EPA SEM	08/31/10	L5VR41AJ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00061	
Cadmium	0.27	0.0032	umoles/gm	EPA SEM	08/31/10	L5VR41AL
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00010	
Copper	0.43 J	0.028	umoles/gm	EPA SEM	08/31/10	L5VR41AM
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0026	
Nickel	0.21 J	0.049	umoles/gm	EPA SEM	08/31/10	L5VR41AN
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0014	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-02

TOTAL Metals

Lot-Sample #...: C0H190588-019 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.47	0.0021	umoles/gm	EPA SEM	08/31/10	L5VR41AP
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00069	
Zinc	4.2 J	0.11	umoles/gm	EPA SEM	08/31/10	L5VR41AQ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0082	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-04

TOTAL Metals

Lot-Sample #...: C0H190588-020
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 42

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.055	0.029	mg/kg	SW846 7471A	08/25/10	L5VR61A3
		Dilution Factor: 0.5		Analysis Time..: 08:51	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.0095	
Prep Batch #...: 0242185						
Silver	0.41	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AA
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0034	
Arsenic	3.7	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AC
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.016	
Beryllium	0.95	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AD
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0065	
Cadmium	1.9	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AE
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0061	
Chromium	56.7	0.17	mg/kg	SW846 6020	08/30/10	L5VR61AF
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0053	
Copper	13.3	0.17	mg/kg	SW846 6020	08/30/10	L5VR61AG
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.029	
Nickel	12.1	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AH
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0098	
Lead	19.8	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AJ
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0033	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-04

TOTAL Metals

Lot-Sample #...: C0H190588-020 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.16 B	0.17	mg/kg	SW846 6020	08/30/10	L5VR61AK
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0023	
Selenium	0.64	0.43	mg/kg	SW846 6020	08/30/10	L5VR61AL
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.044	
Thallium	0.094	0.087	mg/kg	SW846 6020	08/30/10	L5VR61AM
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0017	
Zinc	57.7	0.43	mg/kg	SW846 6020	08/30/10	L5VR61AN
		Dilution Factor: 0.5		Analysis Time..: 22:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.056	
Prep Batch #...: 0243148						
Silver	0.0010 B	0.0020	umoles/gm	EPA SEM	08/31/10	L5VR61AQ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00023	
Chromium	0.29 J	0.0042	umoles/gm	EPA SEM	08/31/10	L5VR61AP
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00036	
Cadmium	0.012	0.0019	umoles/gm	EPA SEM	08/31/10	L5VR61AR
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000063	
Copper	0.053 J	0.017	umoles/gm	EPA SEM	08/31/10	L5VR61AT
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0015	
Nickel	0.035 J	0.030	umoles/gm	EPA SEM	08/31/10	L5VR61AU
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00085	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-04

TOTAL Metals

Lot-Sample #...: C0H190588-020 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.057	0.0013	umoles/gm	EPA SEM	08/31/10	L5VR61AV
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00042	
Zinc	0.46 J	0.066	umoles/gm	EPA SEM	08/31/10	L5VR61AW
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0049	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-101-SS

TOTAL Metals

Lot-Sample #...: C0H190588-017 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 76

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.45	0.068	mg/kg	SW846 7471A	08/25/10	L5VR21AR
		Dilution Factor: 0.5		Analysis Time..: 08:46	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.022	
Prep Batch #...: 0242185						
Silver	1.6	0.21	mg/kg	SW846 6020	08/30/10	L5VR21AT
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0080	
Arsenic	10.0	0.21	mg/kg	SW846 6020	08/30/10	L5VR21AU
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.037	
Beryllium	1.7	0.21	mg/kg	SW846 6020	08/30/10	L5VR21AV
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.015	
Cadmium	4.6	0.21	mg/kg	SW846 6020	08/30/10	L5VR21AW
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.014	
Chromium	133	0.41	mg/kg	SW846 6020	08/30/10	L5VR21AX
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.013	
Copper	156	0.41	mg/kg	SW846 6020	08/30/10	L5VR21A0
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.068	
Nickel	37.7	0.21	mg/kg	SW846 6020	08/30/10	L5VR21A1
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.023	
Lead	120	0.21	mg/kg	SW846 6020	08/30/10	L5VR21A2
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0078	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-SS

TOTAL Metals

Lot-Sample #...: C0H190588-017 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.61	0.41	mg/kg	SW846 6020	08/30/10	L5VR21A3
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0053	
Selenium	1.8	1.0	mg/kg	SW846 6020	08/30/10	L5VR21A4
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.10	
Thallium	0.24	0.21	mg/kg	SW846 6020	08/30/10	L5VR21AA
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0041	
Zinc	350	1.0	mg/kg	SW846 6020	08/30/10	L5VR21AC
		Dilution Factor: 0.5		Analysis Time..: 22:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.13	
Prep Batch #...: 0243148						
Silver	0.0011 B	0.0048	umoles/gm	EPA SEM	08/31/10	L5VR21AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00055	
Chromium	1.0 J	0.0099	umoles/gm	EPA SEM	08/31/10	L5VR21AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00086	
Cadmium	0.033	0.0046	umoles/gm	EPA SEM	08/31/10	L5VR21AF
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00015	
Copper	0.48 J	0.040	umoles/gm	EPA SEM	08/31/10	L5VR21AG
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0036	
Nickel	0.20 J	0.070	umoles/gm	EPA SEM	08/31/10	L5VR21AH
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0020	

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Tetra Tech NUS, Inc

Client Sample ID: SD-101-SS

TOTAL Metals

Lot-Sample #...: C0H190588-017 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	**0.44**	**0.0030**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR21AJ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00098	
Zinc	**3.7 J**	**0.16**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR21AK**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.012	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-01

TOTAL Metals

Lot-Sample #...: C0H190588-022
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 69

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.73	0.054	mg/kg	SW846 7471A	08/30/10	L5VR91AE
		Dilution Factor: 0.5		Analysis Time..: 09:54	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.018	
Prep Batch #...: 0242192						
Silver	4.3	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AF
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0064	
Arsenic	9.8	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AG
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.030	
Beryllium	2.1	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AH
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Cadmium	11.2	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AJ
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Chromium	251 J	0.33	mg/kg	SW846 6020	08/30/10	L5VR91AK
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Copper	111	0.33	mg/kg	SW846 6020	08/30/10	L5VR91AL
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.054	
Nickel	45.1	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AM
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.019	
Lead	168	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AN
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0062	

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Tetra Tech NUS, Inc

Client Sample ID: SD-102-01

TOTAL Metals

Lot-Sample #...: C0H190588-022 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.68	0.33	mg/kg	SW846 6020	08/30/10	L5VR91AP
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0043	
Selenium	1.8	0.82	mg/kg	SW846 6020	08/30/10	L5VR91AQ
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.082	
Thallium	0.30	0.16	mg/kg	SW846 6020	08/30/10	L5VR91AR
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0033	
Zinc	406	0.82	mg/kg	SW846 6020	08/30/10	L5VR91AT
		Dilution Factor: 0.5		Analysis Time..: 23:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-02

TOTAL Metals

Lot-Sample #...: C0H190588-023 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 68

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	1.6	0.052	mg/kg	SW846 7471A	08/30/10	L5VTC1AE
		Dilution Factor: 0.5		Analysis Time..: 09:56	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.017	
Prep Batch #...: 0242192						
Silver	18.4	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AF
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0061	
Arsenic	9.3	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AG
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.028	
Beryllium	2.2	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AH
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Cadmium	34.9	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AJ
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Chromium	647 J	0.31	mg/kg	SW846 6020	08/30/10	L5VTC1AK
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0096	
Copper	99.5	0.31	mg/kg	SW846 6020	08/30/10	L5VTC1AL
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.052	
Nickel	54.5	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AM
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.018	
Lead	207	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AN
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0060	

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Tetra Tech NUS, Inc

Client Sample ID: SD-102-02

TOTAL Metals

Lot-Sample #...: C0H190588-023 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.0	0.31	mg/kg	SW846 6020	08/30/10	L5VTC1AP
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0041	
Selenium	2.3	0.78	mg/kg	SW846 6020	08/30/10	L5VTC1AQ
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.079	
Thallium	0.36	0.16	mg/kg	SW846 6020	08/30/10	L5VTC1AR
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0031	
Zinc	497	0.78	mg/kg	SW846 6020	08/30/10	L5VTC1AT
		Dilution Factor: 0.5		Analysis Time..: 23:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-04

TOTAL Metals

Lot-Sample #...: C0H190588-024 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.18	0.044	mg/kg	SW846 7471A	08/30/10	L5VTD1AE
		Dilution Factor: 0.5		Analysis Time..: 09:58	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.015	
Prep Batch #...: 0242192						
Silver	2.3	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AF
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0052	
Arsenic	7.8	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AG
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.024	
Beryllium	2.0	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AH
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Cadmium	10	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AJ
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0094	
Chromium	209 J	0.27	mg/kg	SW846 6020	08/30/10	L5VTD1AK
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0082	
Copper	32.8	0.27	mg/kg	SW846 6020	08/30/10	L5VTD1AL
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.044	
Nickel	30.4	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AM
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.015	
Lead	56.8	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AN
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0051	

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Tetra Tech NUS, Inc

Client Sample ID: SD-102-04

TOTAL Metals

Lot-Sample #...: C0H190588-024 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.45	0.27	mg/kg	SW846 6020	08/30/10	L5VTD1AP
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0035	
Selenium	1.4	0.67	mg/kg	SW846 6020	08/30/10	L5VTD1AQ
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.067	
Thallium	0.24	0.13	mg/kg	SW846 6020	08/30/10	L5VTD1AR
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0027	
Zinc	176	0.67	mg/kg	SW846 6020	08/30/10	L5VTD1AT
		Dilution Factor: 0.5		Analysis Time..: 23:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.087	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-102-SS

TOTAL Metals

Lot-Sample #...: C0H190588-021 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 72

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.50	0.059	mg/kg	SW846 7471A	08/30/10	L5VR71AE
		Dilution Factor: 0.5		Analysis Time..: 09:49	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.019	
Prep Batch #...: 0242192						
Silver	1.7 B	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AF
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0069	
Arsenic	10.2	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AG
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.032	
Beryllium	1.8 B	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AH
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.013	
Cadmium	4.6	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AJ
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Chromium	136 J	0.36	mg/kg	SW846 6020	08/30/10	L5VR71AK
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Copper	151	0.36	mg/kg	SW846 6020	08/30/10	L5VR71AL
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.059	
Nickel	37.3	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AM
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.020	
Lead	123	0.18	mg/kg	SW846 6020	08/30/10	L5VR71AN
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0068	

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Tetra Tech NUS, Inc

Client Sample ID: SD-102-SS

TOTAL Metals

Lot-Sample #...: C0H190588-021 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.83 E**	**0.36**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR71AP**
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0046	
Selenium	**1.8**	**0.89**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR71AQ**
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.089	
Thallium	**0.26**	**0.18**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR71AR**
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0036	
Zinc	**337**	**0.89**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR71AT**
		Dilution Factor: 0.5		Analysis Time..: 22:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.12	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Matrix interference.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-01

TOTAL Metals

Lot-Sample #...: C0H190588-026 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.019 B	0.027	mg/kg	SW846 7471A	08/30/10	L5VTG1AE
		Dilution Factor: 0.5		Analysis Time..: 10:01	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.0091	
Prep Batch #...: 0242192						
Silver	0.020 B	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AF
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0032	
Arsenic	2.3	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AG
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.015	
Beryllium	0.73	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AH
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0062	
Cadmium	0.19	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AJ
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0058	
Chromium	14.1 J	0.17	mg/kg	SW846 6020	08/30/10	L5VTG1AK
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0051	
Copper	7.8	0.17	mg/kg	SW846 6020	08/30/10	L5VTG1AL
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.027	
Nickel	10.5	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AM
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0094	
Lead	5.9	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AN
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-103-01

TOTAL Metals

Lot-Sample #...: C0H190588-026 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.057 B	0.17	mg/kg	SW846 6020	08/30/10	L5VTG1AP
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0022	
Selenium	0.51	0.42	mg/kg	SW846 6020	08/30/10	L5VTG1AQ
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.042	
Thallium	0.096	0.083	mg/kg	SW846 6020	08/30/10	L5VTG1AR
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0017	
Zinc	33.4	0.42	mg/kg	SW846 6020	08/30/10	L5VTG1AT
		Dilution Factor: 0.5		Analysis Time..: 23:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.054	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-02

TOTAL Metals

Lot-Sample #...: C0H190588-027 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 18

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	ND	0.020	mg/kg	SW846 7471A	08/30/10	L5VTH1AE
		Dilution Factor: 0.5		Analysis Time..: 10:07	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.0066	
Prep Batch #...: 0242192						
Silver	**0.0088 B**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AF**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0024	
Arsenic	**1.4**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AG**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Beryllium	**0.22**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AH**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0045	
Cadmium	**0.13**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AJ**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0042	
Chromium	**15.7 J**	**0.12**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AK**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0037	
Copper	**22.1**	**0.12**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AL**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.020	
Nickel	**0.67**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AM**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0069	
Lead	**6.9**	**0.061**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTH1AN**
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0023	

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Tetra Tech NUS, Inc

Client Sample ID: SD-103-02

TOTAL Metals

Lot-Sample #...: C0H190588-027 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.057 B	0.12	mg/kg	SW846 6020	08/30/10	L5VTH1AP
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0016	
Selenium	0.81	0.30	mg/kg	SW846 6020	08/30/10	L5VTH1AQ
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.030	
Thallium	0.059 B	0.061	mg/kg	SW846 6020	08/30/10	L5VTH1AR
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0012	
Zinc	2.0	0.30	mg/kg	SW846 6020	08/30/10	L5VTH1AT
		Dilution Factor: 0.5		Analysis Time..: 23:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.039	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-103-SS

TOTAL Metals

Lot-Sample #...: C0H190588-025 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	**0.039**	**0.030**	**mg/kg**	**SW846 7471A**	**08/30/10**	**L5VTE1AE**
		Dilution Factor: 0.5		Analysis Time..: 09:59	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.010	
Prep Batch #...: 0242192						
Silver	**0.064 B**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AF**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0036	
Arsenic	**4.2**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AG**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.017	
Beryllium	**0.78**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AH**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0069	
Cadmium	**0.47**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AJ**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0064	
Chromium	**22.0 J**	**0.18**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AK**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0056	
Copper	**16.5**	**0.18**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AL**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.030	
Nickel	**12.8**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AM**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Lead	**13.1**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AN**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0035	

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Tetra Tech NUS, Inc

Client Sample ID: SD-103-SS

TOTAL Metals

Lot-Sample #...: C0H190588-025 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.22**	**0.18**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AP**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0024	
Selenium	**0.64**	**0.46**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AQ**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.046	
Thallium	**0.12**	**0.091**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AR**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0018	
Zinc	**52.4**	**0.46**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTE1AT**
		Dilution Factor: 0.5		Analysis Time..: 23:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.059	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-01

TOTAL Metals

Lot-Sample #...: C0H190588-029 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 62

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.048	0.044	mg/kg	SW846 7471A	08/30/10	L5VTL1AE
		Dilution Factor: 0.5		Analysis Time..: 10:10	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.014	
Prep Batch #...: 0242192						
Silver	0.074 B	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AF
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0052	
Arsenic	5.6	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AG
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.024	
Beryllium	1.6	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AH
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Cadmium	0.42	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AJ
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0093	
Chromium	31.7 J	0.27	mg/kg	SW846 6020	08/30/10	L5VTL1AK
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0081	
Copper	22.1	0.27	mg/kg	SW846 6020	08/30/10	L5VTL1AL
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.044	
Nickel	23.0	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AM
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.015	
Lead	17.1	0.13	mg/kg	SW846 6020	08/30/10	L5VTL1AN
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0050	

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Tetra Tech NUS, Inc

Client Sample ID: SD-104-01

TOTAL Metals

Lot-Sample #...: C0H190588-029 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.094 B**	**0.27**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTL1AP**
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0035	
Selenium	**1.1**	**0.66**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTL1AQ**
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.067	
Thallium	**0.20**	**0.13**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTL1AR**
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0027	
Zinc	**72.3**	**0.66**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTL1AT**
		Dilution Factor: 0.5		Analysis Time..: 23:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.086	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-02

TOTAL Metals

Lot-Sample #...: C0H190588-030 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.043 B	0.045	mg/kg	SW846 7471A	08/30/10	L5VTM1AE
		Dilution Factor: 0.5		Analysis Time..: 10:12	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.015	
Prep Batch #...: 0242192						
Silver	0.064 B	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AF
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0053	
Arsenic	6.0	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AG
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.025	
Beryllium	1.7	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AH
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Cadmium	0.39	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0096	
Chromium	35.9 J	0.27	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AK
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0084	
Copper	18.9	0.27	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AL
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.045	
Nickel	22.7	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AM
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.015	
Lead	13.5	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AN
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: SD-104-02

TOTAL Metals

Lot-Sample #...: C0H190588-030 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.095 B	0.27	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AP
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0036	
Selenium	1.1	0.69	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AQ
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.069	
Thallium	0.20	0.14	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AR
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0027	
Zinc	72.3	0.69	mg/kg	SW846 6020	08/30-08/31/10	L5VTM1AT
		Dilution Factor: 0.5		Analysis Time..: 00:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.089	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-04

TOTAL Metals

Lot-Sample #...: C0H190588-031 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 56

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.032 B	0.038	mg/kg	SW846 7471A	08/30/10	L5VTN1AE
		Dilution Factor: 0.5		Analysis Time..: 10:14	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.012	
Prep Batch #...: 0242192						
Silver	0.044 B	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AF
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0045	
Arsenic	5.4	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AG
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.021	
Beryllium	1.4	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AH
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0086	
Cadmium	0.32	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0080	
Chromium	27.7 J	0.23	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AK
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0070	
Copper	13.7	0.23	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AL
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.038	
Nickel	20.0	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AM
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.013	
Lead	11.6	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AN
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0043	

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Tetra Tech NUS, Inc

Client Sample ID: SD-104-04

TOTAL Metals

Lot-Sample #...: C0H190588-031 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.074 B	0.23	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AP
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0030	
Selenium	0.89	0.57	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AQ
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.057	
Thallium	0.15	0.11	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AR
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0023	
Zinc	67.7	0.57	mg/kg	SW846 6020	08/30-08/31/10	L5VTN1AT
		Dilution Factor: 0.5		Analysis Time..: 00:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.074	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-104-SS

TOTAL Metals

Lot-Sample #...: C0H190588-028 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 65

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.50	0.047	mg/kg	SW846 7471A	08/30/10	L5VTK1AE
		Dilution Factor: 0.5		Analysis Time..: 10:09	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.015	
Prep Batch #...: 0242192						
Silver	2.0	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AF
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0055	
Arsenic	9.0	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AG
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.026	
Beryllium	1.8	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AH
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Cadmium	8.8	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AJ
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0099	
Chromium	236 J	0.28	mg/kg	SW846 6020	08/30/10	L5VTK1AK
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0087	
Copper	60.4	0.28	mg/kg	SW846 6020	08/30/10	L5VTK1AL
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.047	
Nickel	34.4	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AM
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.016	
Lead	117	0.14	mg/kg	SW846 6020	08/30/10	L5VTK1AN
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0054	

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Tetra Tech NUS, Inc

Client Sample ID: SD-104-SS

TOTAL Metals

Lot-Sample #...: C0H190588-028 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.50**	**0.28**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTK1AP**
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0037	
Selenium	**1.9**	**0.71**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTK1AQ**
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.071	
Thallium	**0.24**	**0.14**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTK1AR**
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0028	
Zinc	**238**	**0.71**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VTK1AT**
		Dilution Factor: 0.5		Analysis Time..: 23:53	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.092	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-01

TOTAL Metals

Lot-Sample #...: C0H190588-033 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 70

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.56	0.055	mg/kg	SW846 7471A	08/30/10	L5VTT1AE
		Dilution Factor: 0.5		Analysis Time..: 10:17	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.018	
Prep Batch #...: 0242192						
Silver	2.2	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AF
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0065	
Arsenic	10.8	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AG
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.030	
Beryllium	1.9	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AH
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Cadmium	5.7	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Chromium	153 J	0.33	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AK
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Copper	142	0.33	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AL
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.055	
Nickel	44.3	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AM
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.019	
Lead	144	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTT1AN
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0063	

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Tetra Tech NUS, Inc

Client Sample ID: SD-105-01

TOTAL Metals

Lot-Sample #...: C0H190588-033 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.65**	**0.33**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTT1AP**
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0043	
Selenium	**1.9**	**0.83**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTT1AQ**
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.084	
Thallium	**0.26**	**0.17**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTT1AR**
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0033	
Zinc	**389**	**0.83**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTT1AT**
		Dilution Factor: 0.5		Analysis Time..: 00:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-02

TOTAL Metals

Lot-Sample #...: C0H190588-034 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 67

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.75	0.050	mg/kg	SW846 7471A	08/30/10	L5VTV1AE
		Dilution Factor: 0.5		Analysis Time..: 10:19	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.017	
Prep Batch #...: 0242192						
Silver	4.0	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AF
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0060	
Arsenic	9.2	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AG
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.028	
Beryllium	2.1	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AH
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Cadmium	10.9	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Chromium	260 J	0.31	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AK
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0093	
Copper	113	0.31	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AL
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.050	
Nickel	47.4	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AM
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.017	
Lead	182	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTV1AN
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0058	

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Tetra Tech NUS, Inc

Client Sample ID: SD-105-02

TOTAL Metals

Lot-Sample #...: C0H190588-034 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.75**	**0.31**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTV1AP**
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0040	
Selenium	**2.1**	**0.76**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTV1AQ**
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.077	
Thallium	**0.28**	**0.15**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTV1AR**
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0031	
Zinc	**418**	**0.76**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTV1AT**
		Dilution Factor: 0.5		Analysis Time..: 00:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.099	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-04

TOTAL Metals

Lot-Sample #...: C0H190588-035 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 65

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	1.5	**0.048**	**mg/kg**	**SW846 7471A**	**08/30/10**	**L5VTW1AE**
		Dilution Factor: 0.5		Analysis Time..: 10:21	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.016	
Prep Batch #...: 0242192						
Silver	8.9	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AF**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0056	
Arsenic	8.3	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AG**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.026	
Beryllium	1.9	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AH**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Cadmium	33.6	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AJ**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Chromium	597 J	**0.29**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AK**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0088	
Copper	84.1	**0.29**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AL**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.048	
Nickel	47.5	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AM**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.016	
Lead	163	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AN**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0055	

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Tetra Tech NUS, Inc

Client Sample ID: SD-105-04

TOTAL Metals

Lot-Sample #...: C0H190588-035 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.96**	**0.29**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AP**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0037	
Selenium	**2.1**	**0.72**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AQ**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.072	
Thallium	**0.30**	**0.14**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AR**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0029	
Zinc	**436**	**0.72**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTW1AT**
		Dilution Factor: 0.5		Analysis Time..: 00:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.093	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-105-SS

TOTAL Metals

Lot-Sample #...: C0H190588-032 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 71

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.41	0.056	mg/kg	SW846 7471A	08/30/10	L5VTP1AE
		Dilution Factor: 0.5		Analysis Time..: 10:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.018	
Prep Batch #...: 0242192						
Silver	1.3	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AF
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0066	
Arsenic	37.2	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AG
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.031	
Beryllium	1.7	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AH
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.013	
Cadmium	3.0	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Chromium	150 J	0.34	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AK
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Copper	183	0.34	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AL
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.056	
Nickel	37.4	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AM
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.019	
Lead	114	0.17	mg/kg	SW846 6020	08/30-08/31/10	L5VTP1AN
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0064	

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Tetra Tech NUS, Inc

Client Sample ID: SD-105-SS

TOTAL Metals

Lot-Sample #...: C0H190588-032 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.64**	**0.34**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTP1AP**
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0044	
Selenium	**1.8**	**0.85**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTP1AQ**
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.085	
Thallium	**0.23**	**0.17**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTP1AR**
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0034	
Zinc	**334**	**0.85**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VTP1AT**
		Dilution Factor: 0.5		Analysis Time..: 00:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-01

TOTAL Metals

Lot-Sample #...: C0H190588-038 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.31	0.030	mg/kg	SW846 7471A	08/30/10	L5VT11AE
		Dilution Factor: 0.5		Analysis Time..: 10:29	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.0099	
Prep Batch #...: 0242192						
Silver	1.8	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AF
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0035	
Arsenic	4.6	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AG
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.016	
Beryllium	0.99	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AH
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0068	
Cadmium	69.0	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AJ
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0064	
Chromium	718 J	0.18	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AK
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0056	
Copper	84.6	0.18	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AL
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.030	
Nickel	31.6	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AM
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Lead	211	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AN
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0035	

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Tetra Tech NUS, Inc

Client Sample ID: SD-86-01

TOTAL Metals

Lot-Sample #...: C0H190588-038 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	2.2	0.18	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AP
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0024	
Selenium	0.95	0.46	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AQ
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.046	
Thallium	0.12	0.091	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AR
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0018	
Zinc	452	0.46	mg/kg	SW846 6020	08/30-08/31/10	L5VT11AT
		Dilution Factor: 0.5		Analysis Time..: 00:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.059	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-02

TOTAL Metals

Lot-Sample #...: C0H190588-039
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 52

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.37	0.034	mg/kg	SW846 7471A	08/30/10	L5VT21AE
		Dilution Factor: 0.5		Analysis Time..: 10:31	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.011	
Prep Batch #...: 0242192						
Silver	3.2	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AF
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0041	
Arsenic	6.6	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AG
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.019	
Beryllium	1.9	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AH
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0078	
Cadmium	296	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AJ
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0073	
Chromium	2060 J	0.21	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AK
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0064	
Copper	147	0.21	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AL
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.034	
Nickel	59.7	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AM
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.012	
Lead	250	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AN
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0040	

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Tetra Tech NUS, Inc

Client Sample ID: SD-86-02

TOTAL Metals

Lot-Sample #...: C0H190588-039 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	5.3	0.21	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AP
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0027	
Selenium	1.4	0.52	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AQ
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.052	
Thallium	0.19	0.10	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AR
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0021	
Zinc	1570	0.52	mg/kg	SW846 6020	08/30-08/31/10	L5VT21AT
		Dilution Factor: 0.5		Analysis Time..: 00:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.068	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-04

TOTAL Metals

Lot-Sample #...: C0H190588-040 **Matrix.....:** SOLID
Date Sampled...: 08/18/10 **Date Received..:** 08/19/10
% Moisture.....: 51

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	**0.050**	**0.034**	**mg/kg**	**SW846 7471A**	**08/30/10**	**L5VT31AE**
		Dilution Factor: 0.5		Analysis Time..: 10:32	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.011	
Prep Batch #...: 0242192						
Silver	**0.068 B**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AF**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0040	
Arsenic	**3.8**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AG**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.018	
Beryllium	**1.6**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AH**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0076	
Cadmium	**2.9**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AJ**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0071	
Chromium	**52.4 J**	**0.20**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AK**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0062	
Copper	**18.6**	**0.20**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AL**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.034	
Nickel	**27.1**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AM**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Lead	**14.0**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AN**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0039	

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Tetra Tech NUS, Inc

Client Sample ID: SD-86-04

TOTAL Metals

Lot-Sample #...: C0H190588-040 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.16 B**	**0.20**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AP**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0026	
Selenium	**0.75**	**0.51**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AQ**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.051	
Thallium	**0.16**	**0.10**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AR**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0020	
Zinc	**71.4**	**0.51**	**mg/kg**	**SW846 6020**	**08/30-08/31/10**	**L5VT31AT**
		Dilution Factor: 0.5		Analysis Time..: 00:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.066	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-86-SS

TOTAL Metals

Lot-Sample #...: C0H190588-037
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 59

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.27	0.040	mg/kg	SW846 7471A	08/30/10	L5VT01AE
		Dilution Factor: 0.5		Analysis Time..: 10:27	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.013	
Prep Batch #...: 0242192						
Silver	2.7	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AF
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0047	
Arsenic	6.0	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AG
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.022	
Beryllium	1.4	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AH
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0091	
Cadmium	41.2	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AJ
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0085	
Chromium	296 J	0.24	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AK
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0074	
Copper	97.1	0.24	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AL
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.040	
Nickel	35.5	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AM
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.014	
Lead	202	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AN
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0046	

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Tetra Tech NUS, Inc

Client Sample ID: SD-86-SS

TOTAL Metals

Lot-Sample #...: C0H190588-037 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.9	0.24	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AP
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0032	
Selenium	1.3	0.61	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AQ
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.061	
Thallium	0.17	0.12	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AR
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0024	
Zinc	595	0.61	mg/kg	SW846 6020	08/30-08/31/10	L5VT01AT
		Dilution Factor: 0.5		Analysis Time..: 00:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.079	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-01

TOTAL Metals

Lot-Sample #...: C0H190588-014
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 46

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.37	0.031	mg/kg	SW846 7471A	08/25/10	L5VRT1AL
		Dilution Factor: 0.5		Analysis Time..: 08:38	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.010	
Prep Batch #...: 0242185						
Silver	2.7	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AM
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0036	
Arsenic	4.2	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AN
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.017	
Beryllium	1.0	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AP
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0070	
Cadmium	64.7	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0065	
Chromium	541	0.19	mg/kg	SW846 6020	08/30/10	L5VRT1AR
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0057	
Copper	88.7	0.19	mg/kg	SW846 6020	08/30/10	L5VRT1AT
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.031	
Nickel	31.5	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AU
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Lead	205	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1AV
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0035	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-01

TOTAL Metals

Lot-Sample #...: C0H190588-014 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.3	0.19	mg/kg	SW846 6020	08/30/10	L5VRT1AW
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0024	
Selenium	0.88	0.46	mg/kg	SW846 6020	08/30/10	L5VRT1AX
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.047	
Thallium	0.16	0.093	mg/kg	SW846 6020	08/30/10	L5VRT1A0
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0019	
Zinc	497	0.46	mg/kg	SW846 6020	08/30/10	L5VRT1A1
		Dilution Factor: 0.5		Analysis Time..: 21:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.060	
Prep Batch #...: 0243148						
Silver	0.0010 B	0.0021	umoles/gm	EPA SEM	08/31/10	L5VRT1A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00025	
Chromium	4.6 J	0.0045	umoles/gm	EPA SEM	08/31/10	L5VRT1A2
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00039	
Cadmium	0.48	0.0021	umoles/gm	EPA SEM	08/31/10	L5VRT1A4
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000067	
Copper	0.18 J	0.018	umoles/gm	EPA SEM	08/31/10	L5VRT1AA
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Nickel	0.16 J	0.032	umoles/gm	EPA SEM	08/31/10	L5VRT1AC
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00091	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-01

TOTAL Metals

Lot-Sample #...: C0H190588-014 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.73	0.0013	umoles/gm	EPA SEM	08/31/10	L5VRT1AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00044	
Zinc	6.9 J	0.35	umoles/gm	EPA SEM	08/31-09/01/10	L5VRT1AE
		Dilution Factor: 5		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.026	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-02

TOTAL Metals

Lot-Sample #...: C0H190588-015
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 52

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.76	0.034	mg/kg	SW846 7471A	08/25/10	L5VRX1AR
		Dilution Factor: 0.5		Analysis Time..: 08:40	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.011	
Prep Batch #...: 0242185						
Silver	8.5	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1AT
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0040	
Arsenic	5.3	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1AU
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.019	
Beryllium	1.5	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1AV
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0078	
Cadmium	207	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1AW
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0072	
Chromium	1530	0.21	mg/kg	SW846 6020	08/30/10	L5VRX1AX
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0063	
Copper	112	0.21	mg/kg	SW846 6020	08/30/10	L5VRX1A0
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.034	
Nickel	43.8	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1A1
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.012	
Lead	288	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1A2
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0039	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-02

TOTAL Metals

Lot-Sample #...: C0H190588-015 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	2.4	0.21	mg/kg	SW846 6020	08/30/10	L5VRX1A3
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0027	
Selenium	1.3	0.52	mg/kg	SW846 6020	08/30/10	L5VRX1A4
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.052	
Thallium	0.23	0.10	mg/kg	SW846 6020	08/30/10	L5VRX1AA
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0021	
Zinc	762	0.52	mg/kg	SW846 6020	08/30/10	L5VRX1AC
		Dilution Factor: 0.5		Analysis Time..: 22:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.067	
Prep Batch #...: 0243148						
Silver	0.0048	0.0024	umoles/gm	EPA SEM	08/31/10	L5VRX1AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00028	
Chromium	15.4 J	0.0050	umoles/gm	EPA SEM	08/31/10	L5VRX1AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00043	
Cadmium	1.4	0.0023	umoles/gm	EPA SEM	08/31/10	L5VRX1AF
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000074	
Copper	0.32 J	0.020	umoles/gm	EPA SEM	08/31/10	L5VRX1AG
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0018	
Nickel	0.29 J	0.035	umoles/gm	EPA SEM	08/31/10	L5VRX1AH
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0010	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-02

TOTAL Metals

Lot-Sample #...: C0H190588-015 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	1.0	0.0015	umoles/gm	EPA SEM	08/31/10	L5VRX1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00049	
Zinc	9.3 J	0.40	umoles/gm	EPA SEM	08/31-09/01/10	L5VRX1AK
		Dilution Factor: 5		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.029	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-04

TOTAL Metals

Lot-Sample #...: C0H190588-016
Date Sampled...: 08/18/10 Date Received..: 08/19/10
% Moisture.....: 60
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.25	0.041	mg/kg	SW846 7471A	08/25/10	L5VR01AX
		Dilution Factor: 0.5		Analysis Time..: 08:41	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.014	
Prep Batch #...: 0242185						
Silver	0.85	0.12	mg/kg	SW846 6020	08/30/10	L5VR01A0
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0048	
Arsenic	5.1	0.12	mg/kg	SW846 6020	08/30/10	L5VR01A1
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.022	
Beryllium	2.1	0.12	mg/kg	SW846 6020	08/30/10	L5VR01A2
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0093	
Cadmium	11.4	0.12	mg/kg	SW846 6020	08/30/10	L5VR01A3
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0087	
Chromium	114	0.25	mg/kg	SW846 6020	08/30/10	L5VR01A4
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0076	
Copper	33.1	0.25	mg/kg	SW846 6020	08/30/10	L5VR01AA
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.041	
Nickel	29.1	0.12	mg/kg	SW846 6020	08/30/10	L5VR01AC
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.014	
Lead	35.6	0.12	mg/kg	SW846 6020	08/30/10	L5VR01AD
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0047	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-04

TOTAL Metals

Lot-Sample #...: C0H190588-016 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.27**	**0.25**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR01AE**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0032	
Selenium	**1.1**	**0.62**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR01AF**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.062	
Thallium	**0.26**	**0.12**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR01AG**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0025	
Zinc	**139**	**0.62**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VR01AH**
		Dilution Factor: 0.5		Analysis Time..: 22:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.080	
Prep Batch #...: 0243148						
Silver	**0.0022 B**	**0.0029**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR01AK**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00033	
Chromium	**0.52 J**	**0.0060**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR01AJ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00052	
Cadmium	**0.035**	**0.0028**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR01AL**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000089	
Copper	**0.26 J**	**0.024**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR01AM**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0022	
Nickel	**0.13 J**	**0.042**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L5VR01AN**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0012	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-04

TOTAL Metals

Lot-Sample #...: C0H190588-016 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.20	0.0018	umoles/gm	EPA SEM	08/31/10	L5VR01AP
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00059	
Zinc	1.2 J	0.095	umoles/gm	EPA SEM	08/31/10	L5VR01AQ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0070	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-87-SS

TOTAL Metals

Lot-Sample #...: C0H190588-013
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.30	0.044	mg/kg	SW846 7471A	08/25/10	L5VRR1AF
		Dilution Factor: 0.5		Analysis Time..: 08:36	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.015	
Prep Batch #...: 0242185						
Silver	1.4	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AG
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0052	
Arsenic	6.2	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AH
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.024	
Beryllium	1.3	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Cadmium	32.9	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AK
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0094	
Chromium	277	0.27	mg/kg	SW846 6020	08/30/10	L5VRR1AL
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0082	
Copper	108	0.27	mg/kg	SW846 6020	08/30/10	L5VRR1AM
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.044	
Nickel	32.8	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AN
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.015	
Lead	142	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AP
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0051	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-SS

TOTAL Metals

Lot-Sample #...: C0H190588-013 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.0	0.27	mg/kg	SW846 6020	08/30/10	L5VRR1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0035	
Selenium	1.2	0.67	mg/kg	SW846 6020	08/30/10	L5VRR1AR
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.068	
Thallium	0.20	0.13	mg/kg	SW846 6020	08/30/10	L5VRR1AT
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0027	
Zinc	524	0.67	mg/kg	SW846 6020	08/30/10	L5VRR1AU
		Dilution Factor: 0.5		Analysis Time..: 21:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.087	
Prep Batch #...: 0243148						
Silver	ND	0.0031	umoles/gm	EPA SEM	08/31/10	L5VRR1AW
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00036	
Chromium	1.6 J	0.0065	umoles/gm	EPA SEM	08/31/10	L5VRR1AV
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00056	
Cadmium	0.25	0.0030	umoles/gm	EPA SEM	08/31/10	L5VRR1AX
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000097	
Copper	0.011 B,J	0.026	umoles/gm	EPA SEM	08/31/10	L5VRR1A0
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0024	
Nickel	0.14 J	0.046	umoles/gm	EPA SEM	08/31/10	L5VRR1A1
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0013	

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Tetra Tech NUS, Inc

Client Sample ID: SD-87-SS

TOTAL Metals

Lot-Sample #...: C0H190588-013 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	0.52	0.0019	umoles/gm	EPA SEM	08/31/10	L5VRR1A2
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00064	
Zinc	6.8 J	0.21	umoles/gm	EPA SEM	08/31-09/01/10	L5VRR1A3
		Dilution Factor: 2		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.015	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-01

TOTAL Metals

Lot-Sample #...: C0H190588-002
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 33

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	ND	0.025	mg/kg	SW846 7471A	08/25/10	L5VQ81AE
		Dilution Factor: 0.5		Analysis Time..: 08:14	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.0082	
Prep Batch #...: 0242185						
Silver	0.022 B	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AF
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0029	
Arsenic	7.2	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AG
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.014	
Beryllium	1.8	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AH
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0056	
Cadmium	0.20	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AJ
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0053	
Chromium	16.1	0.15	mg/kg	SW846 6020	08/30/10	L5VQ81AK
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0046	
Copper	16.6	0.15	mg/kg	SW846 6020	08/30/10	L5VQ81AL
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.025	
Nickel	16.9	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AM
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0085	
Lead	3.6	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AN
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0029	

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Tetra Tech NUS, Inc

Client Sample ID: SD-92-01

TOTAL Metals

Lot-Sample #...: C0H190588-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.13 B	0.15	mg/kg	SW846 6020	08/30/10	L5VQ81AP
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0020	
Selenium	0.66	0.38	mg/kg	SW846 6020	08/30/10	L5VQ81AQ
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.038	
Thallium	0.063 B	0.075	mg/kg	SW846 6020	08/30/10	L5VQ81AR
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0015	
Zinc	46.6	0.38	mg/kg	SW846 6020	08/30/10	L5VQ81AT
		Dilution Factor: 0.5		Analysis Time..: 20:51	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.049	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-92-SS

TOTAL Metals

Lot-Sample #...: C0H190588-001
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 47

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.024 B	0.031	mg/kg	SW846 7471A	08/25/10	L5VQ71AE
		Dilution Factor: 0.5		Analysis Time..: 08:09	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.010	
Prep Batch #...: 0242185						
Silver	0.033 B	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AF
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0036	
Arsenic	3.9	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AG
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.017	
Beryllium	1.5	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AH
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0070	
Cadmium	0.21	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AJ
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0065	
Chromium	15.0	0.19	mg/kg	SW846 6020	08/30/10	L5VQ71AK
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0057	
Copper	12.8	0.19	mg/kg	SW846 6020	08/30/10	L5VQ71AL
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.031	
Nickel	12.5	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AM
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Lead	5.1	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AN
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0036	

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Tetra Tech NUS, Inc

Client Sample ID: SD-92-SS

TOTAL Metals

Lot-Sample #...: C0H190588-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.13 B	0.19	mg/kg	SW846 6020	08/30/10	L5VQ71AP
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0024	
Selenium	0.68	0.47	mg/kg	SW846 6020	08/30/10	L5VQ71AQ
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.047	
Thallium	0.066 B	0.094	mg/kg	SW846 6020	08/30/10	L5VQ71AR
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0019	
Zinc	40.4	0.47	mg/kg	SW846 6020	08/30/10	L5VQ71AT
		Dilution Factor: 0.5		Analysis Time..: 20:16	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.061	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-01

TOTAL Metals

Lot-Sample #...: C0H190588-004
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 33

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.11	0.025	mg/kg	SW846 7471A	08/25/10	L5VRD1AE
		Dilution Factor: 0.5		Analysis Time..: 08:17	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.0081	
Prep Batch #...: 0242185						
Silver	0.55	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AF
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0029	
Arsenic	3.9	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AG
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.013	
Beryllium	1.0	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AH
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0056	
Cadmium	2.7	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AJ
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0052	
Chromium	37.5	0.15	mg/kg	SW846 6020	08/30/10	L5VRD1AK
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0045	
Copper	23.3	0.15	mg/kg	SW846 6020	08/30/10	L5VRD1AL
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.025	
Nickel	13.9	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AM
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0084	
Lead	36.6	0.074	mg/kg	SW846 6020	08/30/10	L5VRD1AN
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0028	

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Tetra Tech NUS, Inc

Client Sample ID: SD-93-01

TOTAL Metals

Lot-Sample #...: C0H190588-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.29**	**0.15**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRD1AP**
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0019	
Selenium	**0.60**	**0.37**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRD1AQ**
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.037	
Thallium	**0.070 B**	**0.074**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRD1AR**
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0015	
Zinc	**125**	**0.37**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRD1AT**
		Dilution Factor: 0.5		Analysis Time..: 20:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.048	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-02

TOTAL Metals

Lot-Sample #...: C0H190588-005
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 48

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	1.1	0.032	mg/kg	SW846 7471A	08/25/10	L5VRE1AE
		Dilution Factor: 0.5		Analysis Time..: 08:19	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.010	
Prep Batch #...: 0242185						
Silver	8.1	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AF
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0037	
Arsenic	5.5	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AG
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.017	
Beryllium	1.6	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AH
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0072	
Cadmium	17.9	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0067	
Chromium	218	0.19	mg/kg	SW846 6020	08/30/10	L5VRE1AK
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0058	
Copper	42.9	0.19	mg/kg	SW846 6020	08/30/10	L5VRE1AL
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.032	
Nickel	27.4	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AM
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Lead	73.0	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AN
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0036	

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Tetra Tech NUS, Inc

Client Sample ID: SD-93-02

TOTAL Metals

Lot-Sample #...: C0H190588-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.46	0.19	mg/kg	SW846 6020	08/30/10	L5VRE1AP
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0025	
Selenium	1.2	0.48	mg/kg	SW846 6020	08/30/10	L5VRE1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.048	
Thallium	0.17	0.096	mg/kg	SW846 6020	08/30/10	L5VRE1AR
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0019	
Zinc	213	0.48	mg/kg	SW846 6020	08/30/10	L5VRE1AT
		Dilution Factor: 0.5		Analysis Time..: 21:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.062	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-04

TOTAL Metals

Lot-Sample #...: C0H190588-006
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.16	0.027	mg/kg	SW846 7471A	08/25/10	L5VRG1AE
		Dilution Factor: 0.5		Analysis Time..: 08:20	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.0090	
Prep Batch #...: 0242185						
Silver	2.4	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AF
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0032	
Arsenic	3.3	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AG
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.015	
Beryllium	1.9	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AH
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0062	
Cadmium	4.5	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0058	
Chromium	113	0.17	mg/kg	SW846 6020	08/30/10	L5VRG1AK
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0050	
Copper	22.5	0.17	mg/kg	SW846 6020	08/30/10	L5VRG1AL
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.027	
Nickel	20.1	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AM
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0093	
Lead	29.8	0.083	mg/kg	SW846 6020	08/30/10	L5VRG1AN
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0031	

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Tetra Tech NUS, Inc

Client Sample ID: SD-93-04

TOTAL Metals

Lot-Sample #...: C0H190588-006 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.33**	**0.17**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRG1AP**
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0022	
Selenium	**0.92**	**0.41**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRG1AQ**
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.042	
Thallium	**0.11**	**0.083**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRG1AR**
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0017	
Zinc	**114**	**0.41**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRG1AT**
		Dilution Factor: 0.5		Analysis Time..: 21:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.054	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-93-SS

TOTAL Metals

Lot-Sample #...: C0H190588-003
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.048	0.023	mg/kg	SW846 7471A	08/25/10	L5VQ91AE
		Dilution Factor: 0.5		Analysis Time..: 08:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.0077	
Prep Batch #...: 0242185						
Silver	0.19	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AF
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0028	
Arsenic	4.2	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AG
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.013	
Beryllium	0.81	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AH
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0053	
Cadmium	1.1	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AJ
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0050	
Chromium	17.9	0.14	mg/kg	SW846 6020	08/30/10	L5VQ91AK
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0043	
Copper	21.8	0.14	mg/kg	SW846 6020	08/30/10	L5VQ91AL
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.023	
Nickel	10.4	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AM
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0080	
Lead	21.5	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AN
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0027	

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Tetra Tech NUS, Inc

Client Sample ID: SD-93-SS

TOTAL Metals

Lot-Sample #...: C0H190588-003

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.27	0.14	mg/kg	SW846 6020	08/30/10	L5VQ91AP
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0018	
Selenium	0.42	0.35	mg/kg	SW846 6020	08/30/10	L5VQ91AQ
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.036	
Thallium	0.053 B	0.071	mg/kg	SW846 6020	08/30/10	L5VQ91AR
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0014	
Zinc	100	0.35	mg/kg	SW846 6020	08/30/10	L5VQ91AT
		Dilution Factor: 0.5		Analysis Time..: 20:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.046	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-01

TOTAL Metals

Lot-Sample #...: C0H190588-008
Date Sampled...: 08/17/10 Date Received..: 08/19/10
% Moisture.....: 68
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.66	0.052	mg/kg	SW846 7471A	08/25/10	L5VRJ1AE
		Dilution Factor: 0.5		Analysis Time..: 08:28	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.017	
Prep Batch #...: 0242185						
Silver	4.6	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AF
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0061	
Arsenic	8.3	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AG
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.028	
Beryllium	2.1	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AH
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.012	
Cadmium	12.0	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Chromium	241	0.31	mg/kg	SW846 6020	08/30/10	L5VRJ1AK
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0095	
Copper	90.9	0.31	mg/kg	SW846 6020	08/30/10	L5VRJ1AL
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.052	
Nickel	42.7	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AM
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.018	
Lead	174	0.16	mg/kg	SW846 6020	08/30/10	L5VRJ1AN
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0059	

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Tetra Tech NUS, Inc

Client Sample ID: SD-95-01

TOTAL Metals

Lot-Sample #...: C0H190588-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.67**	**0.31**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRJ1AP**
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0041	
Selenium	**1.9**	**0.78**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRJ1AQ**
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.078	
Thallium	**0.28**	**0.16**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRJ1AR**
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0031	
Zinc	**382**	**0.78**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRJ1AT**
		Dilution Factor: 0.5		Analysis Time..: 21:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-02

TOTAL Metals

Lot-Sample #...: C0H190588-009
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	2.7	0.098	mg/kg	SW846 7471A	08/25/10	L5VRK1AE
		Dilution Factor: 1		Analysis Time..: 09:42	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.033	
Prep Batch #...: 0242185						
Silver	26.8	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AF
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0058	
Arsenic	8.8	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AG
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.027	
Beryllium	2.0	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AH
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Cadmium	31.1	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Chromium	534	0.30	mg/kg	SW846 6020	08/30/10	L5VRK1AK
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0091	
Copper	100	0.30	mg/kg	SW846 6020	08/30/10	L5VRK1AL
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.049	
Nickel	49.7	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AM
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.017	
Lead	191	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AN
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0057	

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Tetra Tech NUS, Inc

Client Sample ID: SD-95-02

TOTAL Metals

Lot-Sample #...: C0H190588-009

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.92	0.30	mg/kg	SW846 6020	08/30/10	L5VRK1AP
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0039	
Selenium	2.1	0.75	mg/kg	SW846 6020	08/30/10	L5VRK1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.075	
Thallium	0.31	0.15	mg/kg	SW846 6020	08/30/10	L5VRK1AR
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0030	
Zinc	456	0.75	mg/kg	SW846 6020	08/30/10	L5VRK1AT
		Dilution Factor: 0.5		Analysis Time..: 21:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.097	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-04

TOTAL Metals

Lot-Sample #...: C0H190588-010
Date Sampled...: 08/17/10
% Moisture.....: 53

Date Received..: 08/19/10

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.35	0.035	mg/kg	SW846 7471A	08/25/10	L5VRL1AE
		Dilution Factor: 0.5		Analysis Time..: 08:31	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.011	
Prep Batch #...: 0242185						
Silver	4.7	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AF
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0041	
Arsenic	5.5	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AG
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.019	
Beryllium	2.1	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AH
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0079	
Cadmium	9.3	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0074	
Chromium	194	0.21	mg/kg	SW846 6020	08/30/10	L5VRL1AK
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0064	
Copper	32.9	0.21	mg/kg	SW846 6020	08/30/10	L5VRL1AL
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.035	
Nickel	26.4	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AM
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.012	
Lead	43.6	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AN
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0040	

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Tetra Tech NUS, Inc

Client Sample ID: SD-95-04

TOTAL Metals

Lot-Sample #...: C0H190588-010 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.52	0.21	mg/kg	SW846 6020	08/30/10	L5VRL1AP
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0027	
Selenium	1.3	0.53	mg/kg	SW846 6020	08/30/10	L5VRL1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.053	
Thallium	0.18	0.11	mg/kg	SW846 6020	08/30/10	L5VRL1AR
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0021	
Zinc	162	0.53	mg/kg	SW846 6020	08/30/10	L5VRL1AT
		Dilution Factor: 0.5		Analysis Time..: 21:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.068	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-95-SS

TOTAL Metals

Lot-Sample #...: C0H190588-007
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 73

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.54	0.062	mg/kg	SW846 7471A	08/25/10	L5VRH1AE
		Dilution Factor: 0.5		Analysis Time..: 08:26	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.020	
Prep Batch #...: 0242185						
Silver	3.7	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AP
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0073	
Arsenic	8.4	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AG
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.034	
Beryllium	1.9	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AH
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.014	
Cadmium	7.7	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.013	
Chromium	165	0.38	mg/kg	SW846 6020	08/30/10	L5VRH1AK
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Copper	96.9	0.38	mg/kg	SW846 6020	08/30/10	L5VRH1AL
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.062	
Nickel	37.6	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AM
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.021	
Lead	118	0.19	mg/kg	SW846 6020	08/30/10	L5VRH1AN
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0071	

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Tetra Tech NUS, Inc

Client Sample ID: SD-95-SS

TOTAL Metals

Lot-Sample #...: C0H190588-007 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.57**	**0.38**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRH1AP**
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0049	
Selenium	**1.7**	**0.94**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRH1AQ**
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.094	
Thallium	**0.25**	**0.19**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRH1AR**
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0038	
Zinc	**360**	**0.94**	**mg/kg**	**SW846 6020**	**08/30/10**	**L5VRH1AT**
		Dilution Factor: 0.5		Analysis Time..: 21:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.12	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP1-01

TOTAL Metals

Lot-Sample #...: C0H190588-011
Date Sampled...: 08/17/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 68

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.62	0.052	mg/kg	SW846 7471A	08/25/10	L5VRM1AE
		Dilution Factor: 0.5		Analysis Time..: 08:33	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.017	
Prep Batch #...: 0242185						
Silver	4.8	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AF
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0061	
Arsenic	8.4	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AG
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.028	
Beryllium	2.2	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AH
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.012	
Cadmium	12.3	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.011	
Chromium	250	0.31	mg/kg	SW846 6020	08/30/10	L5VRM1AK
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0095	
Copper	91.4	0.31	mg/kg	SW846 6020	08/30/10	L5VRM1AL
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.052	
Nickel	43.4	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AM
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.018	
Lead	177	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AN
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0059	

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Tetra Tech NUS, Inc

Client Sample ID: SD-DUP1-01

TOTAL Metals

Lot-Sample #...: C0H190588-011 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.70	0.31	mg/kg	SW846 6020	08/30/10	L5VRM1AP
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0041	
Selenium	2.1	0.78	mg/kg	SW846 6020	08/30/10	L5VRM1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.078	
Thallium	0.30	0.16	mg/kg	SW846 6020	08/30/10	L5VRM1AR
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0031	
Zinc	386	0.78	mg/kg	SW846 6020	08/30/10	L5VRM1AT
		Dilution Factor: 0.5		Analysis Time..: 21:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP2-04

TOTAL Metals

Lot-Sample #...: C0H190588-012
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0237023						
Mercury	0.21	0.045	mg/kg	SW846 7471A	08/25/10	L5VRP1AE
		Dilution Factor: 0.5		Analysis Time..: 08:34	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0237010	MDL.....: 0.015	
Prep Batch #...: 0242185						
Silver	1.7	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AF
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0053	
Arsenic	7.6	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AG
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.024	
Beryllium	2.0	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AH
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.010	
Cadmium	6.7	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AJ
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0095	
Chromium	158	0.27	mg/kg	SW846 6020	08/30/10	L5VRP1AK
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0082	
Copper	28.9	0.27	mg/kg	SW846 6020	08/30/10	L5VRP1AL
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.045	
Nickel	28.6	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AM
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.015	
Lead	43.4	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AN
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0051	

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Tetra Tech NUS, Inc

Client Sample ID: SD-DUP2-04

TOTAL Metals

Lot-Sample #...: C0H190588-012 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.29	0.27	mg/kg	SW846 6020	08/30/10	L5VRP1AP
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0035	
Selenium	1.3	0.68	mg/kg	SW846 6020	08/30/10	L5VRP1AQ
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.068	
Thallium	0.21	0.14	mg/kg	SW846 6020	08/30/10	L5VRP1AR
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.0027	
Zinc	151	0.68	mg/kg	SW846 6020	08/30/10	L5VRP1AT
		Dilution Factor: 0.5		Analysis Time..: 21:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242093	MDL.....: 0.088	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP3-SS

TOTAL Metals

Lot-Sample #...: C0H190588-036
Date Sampled...: 08/18/10 Date Received..: 08/19/10 Matrix.....: SOLID
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0242022						
Mercury	0.46	0.049	mg/kg	SW846 7471A	08/30/10	L5VTX1AE
		Dilution Factor: 0.5		Analysis Time..: 10:22	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0242008	MDL.....: 0.016	
Prep Batch #...: 0242192						
Silver	1.7	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AF
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0058	
Arsenic	9.7	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AG
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.027	
Beryllium	2.0	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AH
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.011	
Cadmium	7.1	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AJ
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.010	
Chromium	230 J	0.30	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AK
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0091	
Copper	64.4	0.30	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AL
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.049	
Nickel	37.4	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AM
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.017	
Lead	130	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AN
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0056	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP3-SS

TOTAL Metals

Lot-Sample #...: C0H190588-036 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.59	0.30	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AP
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0039	
Selenium	2.2	0.74	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AQ
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.075	
Thallium	0.26	0.15	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AR
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.0030	
Zinc	248	0.74	mg/kg	SW846 6020	08/30-08/31/10	L5VTX1AT
		Dilution Factor: 0.5		Analysis Time..: 00:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0242096	MDL.....: 0.096	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH **Method:** EPA AVS

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0H190588

Matrix: SOLID

AMBIENT MICRO-MIDI ACID PURGE

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-87-SS	C0H190588 013	L5VRR1A4	18.4	umoles/g —	0.42	1.3	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-87-01	C0H190588 014	L5VRT1AF	2.4	umoles/g —	0.29	0.93	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-87-02	C0H190588 015	L5VRX1AL	4.4	umoles/g —	0.32	1.0	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-87-04	C0H190588 016	L5VR01AR	ND	umoles/g —	0.38	1.2	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-101-SS	C0H190588 017	L5VR21AL	44.6	umoles/g —	0.64	2.0	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-101-01	C0H190588 018	L5VR31AR	10.5	umoles/g —	0.45	1.5	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-101-02	C0H190588 019	L5VR41AR	4.4	umoles/g —	0.45	1.4	1	8/31/2010 - 8/31/2010 13:13	0242175
SD-101-04	C0H190588 020	L5VR61AX	0.33 B	umoles/g —	0.27	0.87	1	8/31/2010 - 8/31/2010 13:13	0242175

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID
Method: SM20 2540G
Lot Number: C0H190588

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-92-SS	C0H190588 001	L5VQ71AA	53.5	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-92-01	C0H190588 002	L5VQ81AA	66.7	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-93-SS	C0H190588 003	L5VQ91AA	70.5	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-93-01	C0H190588 004	L5VRD1AA	67.3	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-93-02	C0H190588 005	L5VRE1AA	52.2	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-93-04	C0H190588 006	L5VRG1AA	60.5	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-95-SS	C0H190588 007	L5VRH1AA	26.6	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-95-01	C0H190588 008	L5VRJ1AA	32.0	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-95-02	C0H190588 009	L5VRK1AA	33.5	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-95-04	C0H190588 010	L5VRL1AA	47.5	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-DUP1-01	C0H190588 011	L5VRM1AA	32.0	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-DUP2-04	C0H190588 012	L5VRP1AA	37.0	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-87-SS	C0H190588 013	L5VRR1AA	37.2	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-87-01	C0H190588 014	L5VRT1AG	53.9	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-87-02	C0H190588 015	L5VRX1AM	48.4	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-87-04	C0H190588 016	L5VR01AT	40.3	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-101-SS	C0H190588 017	L5VR21AM	24.4	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-101-01	C0H190588 018	L5VR31AT	34.2	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH **Method:** SM20 2540G

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0H190588

Matrix: SOLID

SD-101-02	C0H190588 019	L5VR41AT	34.6	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-101-04	C0H190588 020	L5VR61A0	57.6	%	0.0		1	8/20/2010 - 8/21/2010 05:05	0232091
SD-102-SS	C0H190588 021	L5VR71AA	28.1	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-102-01	C0H190588 022	L5VR91AA	30.5	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-102-02	C0H190588 023	L5VTC1AA	31.9	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-102-04	C0H190588 024	L5VTD1AA	37.4	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-103-SS	C0H190588 025	L5VTE1AA	54.7	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-103-01	C0H190588 026	L5VTG1AA	60.2	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-103-02	C0H190588 027	L5VTH1AA	82.5	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-104-SS	C0H190588 028	L5VTK1AA	35.2	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-104-01	C0H190588 029	L5VTL1AA	37.7	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-104-02	C0H190588 030	L5VTM1AA	36.5	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-104-04	C0H190588 031	L5VTN1AA	43.7	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-105-SS	C0H190588 032	L5VTP1AA	29.5	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-105-01	C0H190588 033	L5VTT1AA	30.0	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-105-02	C0H190588 034	L5VTV1AA	32.8	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-105-04	C0H190588 035	L5VTW1AA	34.7	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-DUP3-SS	C0H190588 036	L5VTX1AA	33.6	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-86-SS	C0H190588 037	L5VT01AA	41.1	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-86-01	C0H190588 038	L5VT11AA	54.9	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Lot Number: C0H190588

SD-86-02	C0H190588 039	L5VT21AA	47.9	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100
SD-86-04	C0H190588 040	L5VT31AA	49.2	%	0.0		1	8/20/2010 - 8/21/2010 05:01	0232100

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Lot Number: C0H190588

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-87-SS	C0H190588 013	L5VRR1AC	58100	mg/kg	1340	4920	1.83	8/23/2010 - 8/24/2010 19:48	0235201
SD-87-01	C0H190588 014	L5VRT1AH	28800	mg/kg	894	3280	1.77	8/23/2010 - 8/24/2010 20:02	0235201
SD-87-02	C0H190588 015	L5VRX1AN	28700	mg/kg	986	3620	1.75	8/23/2010 - 8/24/2010 20:17	0235201
SD-101-SS	C0H190588 017	L5VR21AN	50300	mg/kg	2030	7470	1.82	8/23/2010 - 8/24/2010 20:31	0235201
SD-101-01	C0H190588 018	L5VR31AU	26000	mg/kg	1420	5230	1.79	8/23/2010 - 8/24/2010 21:14	0235201
SD-101-02	C0H190588 019	L5VR41AU	28400	mg/kg	1510	5550	1.92	8/23/2010 - 8/24/2010 21:29	0235201

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H190588

Sample Receiving:
TestAmerica's Pittsburgh laboratory received one sample on August 19, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, several samples were analyzed at a dilution. Several samples had the surorgates diluted out.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

Metals:
Several samples were over the instruments linear range for SEM zinc and required a dilution.

The serial dilution of sample SD-102-SS (total) was outside of the percent difference control limits for silver, beryllium, and antimony. The results were flagged with an "E" qualifier.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spike and matrix spike duplicate of sample SD-92-SS recovered outside of the control limits for antimony and lead.

The matrix spike and matrix spike duplicate of sample SD-102-SS recovered outside of the control limits for antimony.

Metals (cont):
The matrix spike of sample SS-102-SS recovered outside of the control limits for chromium and zinc.

For the matrix spike and matrix spike duplicate of sample SD-102-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

METHODS SUMMARY

C0H190588

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H190588

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5VQ7	001	SD-92-SS	08/17/10	15:10
L5VQ8	002	SD-92-01	08/17/10	15:15
L5VQ9	003	SD-93-SS	08/17/10	15:55
L5VRD	004	SD-93-01	08/17/10	16:00
L5VRE	005	SD-93-02	08/17/10	16:05
L5VRG	006	SD-93-04	08/17/10	16:10
L5VRH	007	SD-95-SS	08/17/10	16:55
L5VRJ	008	SD-95-01	08/17/10	17:00
L5VRK	009	SD-95-02	08/17/10	17:05
L5VRL	010	SD-95-04	08/17/10	17:10
L5VRM	011	SD-DUP1-01	08/17/10	12:01
L5VRP	012	SD-DUP2-04	08/18/10	11:10
L5VRR	013	SD-87-SS	08/18/10	08:55
L5VRT	014	SD-87-01	08/18/10	08:57
L5VRX	015	SD-87-02	08/18/10	08:59
L5VR0	016	SD-87-04	08/18/10	09:01
L5VR2	017	SD-101-SS	08/18/10	09:55
L5VR3	018	SD-101-01	08/18/10	09:57
L5VR4	019	SD-101-02	08/18/10	09:59
L5VR6	020	SD-101-04	08/18/10	10:01
L5VR7	021	SD-102-SS	08/18/10	10:30
L5VR9	022	SD-102-01	08/18/10	10:32
L5VTC	023	SD-102-02	08/18/10	10:34
L5VTD	024	SD-102-04	08/18/10	10:36
L5VTE	025	SD-103-SS	08/18/10	12:33
L5VTG	026	SD-103-01	08/18/10	12:35
L5VTH	027	SD-103-02	08/18/10	12:37
L5VTK	028	SD-104-SS	08/18/10	13:20
L5VTL	029	SD-104-01	08/18/10	13:22
L5VTM	030	SD-104-02	08/18/10	13:24
L5VTN	031	SD-104-04	08/18/10	13:26
L5VTP	032	SD-105-SS	08/18/10	14:28
L5VTT	033	SD-105-01	08/18/10	14:30
L5VTV	034	SD-105-02	08/18/10	14:32
L5VTW	035	SD-105-04	08/18/10	14:34
L5VTX	036	SD-DUP3-SS	08/18/10	12:15

(Continued on next page)

SAMPLE SUMMARY

C0H190588

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5VT0	037	SD-86-SS	08/18/10	15:20
L5VT1	038	SD-86-01	08/18/10	15:22
L5VT2	039	SD-86-02	08/18/10	15:24
L5VT3	040	SD-86-04	08/18/10	15:26

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

C0H190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154233
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of
20251 Century Blvd Suite 200	301 528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Arnaudage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sediment Sampling, Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PPMetals+Hg	PAH	PCB
SD-92-55	8/17/10	1510			X		X						X	X	X
SD-92-01		1515			X		X						X	X	X
SD-93-55		1555			X		X						X	X	X
SD-93-01		1600			X		X						X	X	X
SD-93-02		1605			X		X						X	X	X
SD-93-04		1610			X		X						X	X	X
SD-95-55		1655			X		X						X	X	X
SD-95-01		1700			X		X						X	X	X
SD-95-02		1705			X		X						X	X	X
SD-95-04		1710			X		X						X	X	X
SD-Dup1-01	8/17/10	1201			X		X						X	X	X
SD-Dup2-04	8/18/10	1110			X		X						X	X	X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time
1. Relinquished By	8/18/10	1600
2. Relinquished By	8/19/10	1700
3. Relinquished By		

	Date	Time
1. Received By	8/18/10	1600
2. Received By		
3. Received By	8/19/10	1038

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

C0H190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA TECH	Project Manager: mike martin	Date:	Chain of Custody Number: 154234
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301528 3000	Lab Number:	Page 2 of _____
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Apanavage	Lab Contact:	
Project Name and Location (State): MRC Sediment Samp. Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAH	PCB	TOC	AVS	SEM	PSD	PAH	Special Instructions/ Conditions of Receipt
SD-87-SS	8/18/10	0855			X		X						X	X	X	X	X	X			
SD-87-01	8/18/10	0857											X	X	X	X	X	X			
SD-87-02		0859											X	X	X	X	X	X			
SD-87-04		0901											X	X	X	X	X	X			
SD-101-SS		0955											X	X	X	X	X	X			
SD-101-01		0957											X	X	X	X	X	X			
SD-101-02		0959											X	X	X	X	X	X			
SD-101-04		1001											X	X	X		X	X			
SD-102-SS		1030											X	X	X	X					
SD-102-01		1032											X	X	X	X					
SD-102-02		1034											X	X	X	X					
SD-102-04	8/18/10	1036			X		X						X	X	X						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/18/10	1600	1. Received By	8/18/10	1600
2. Relinquished By	8/18/10	1700	2. Received By		
3. Relinquished By			3. Received By	8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1 - 364)

COH190588

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client	Project Manager	Date	Chain of Custody Number
TETRA TECH	Mike Martin		154235
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3922 301-528-3060	Lab Number	Page 3 of
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage	Lab Contact	
Project Name and Location (State): MRC Sed. sampling, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	PP metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-103-SS	8/18/10	1233			X								X	X	X	
SD-103-01		1235			X								X	X	X	
SD-103-02		1237			X								X	X	X	
SD-104-SS		1320			X								X	X	X	
SD-104-01		1322			X								X	X	X	
SD-104-02		1324			X								X	X	X	
SD-104-04		1326			X								X	X	X	
SD-105-SS		1428			X								X	X	X	
SD-105-01		1430			X								X	X	X	
SD-105-02		1432			X								X	X	X	
SD-105-04		1434			X								X	X	X	
[redacted]-SD-DUP 3-SS	8/18/10	1215			X								X	X	X	

Analysis (Attach list if more space is needed)

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

		Date	Time
1. Relinquished By		8/18/10	1600
2. Relinquished By		8/18/10	1700
3. Relinquished By			
1. Received By		8/18/10	1600
2. Received By			
3. Received By		8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike Martin		154239
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 4 **of** _____
20251 Century Blvd. Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Apanavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Sampling, Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-86-SS	8/18/10	1520											X	X	X	
SD-86-01	↓	1522											X	X	X	
SD-86-02	↓	1524											X	X	X	
SD-86-04	8/18/10	1526											X	X	X	

8/18/10

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time
1. Relinquished By	8/18/10	1600
2. Relinquished By	8/18/10	1700
3. Relinquished By		

	Date	Time
1. Received By	8/18/10	1600
2. Received By		
3. Received By	8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

20

(1 - 364)

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-DUP1-01	UNITS	SD-95-01	RPD	D
M	ANTIMONY	0.7	MG/KG	0.67	4.38	0.03
M	ARSENIC	8.4	MG/KG	8.3	1.20	0.10
M	BERYLLIUM	2.2	MG/KG	2.1	4.65	0.10
M	CADMIUM	12.3	MG/KG	12	2.47	0.30
M	CHROMIUM	250	MG/KG	241	3.67	9.00
M	COPPER	91.4	MG/KG	90.9	0.55	0.50
M	LEAD	177	MG/KG	174	1.71	3.00
M	MERCURY	0.62	MG/KG	0.66	6.25	0.04
M	NICKEL	43.4	MG/KG	42.7	1.63	0.70
M	SELENIUM	2.1	MG/KG	1.9	10.00	0.20
M	SILVER	4.8	MG/KG	4.6	4.26	0.20
M	THALLIUM	0.3	MG/KG	0.28	6.90	0.02
M	ZINC	386	MG/KG	382	1.04	4.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-DUP2-04	UNITS	SD-102-04	RPD	D
M	ANTIMONY	0.29	MG/KG	0.45	43.24	0.16
M	ARSENIC	7.6	MG/KG	7.8	2.60	0.20
M	BERYLLIUM	2	MG/KG	2	0.00	0.00
M	CADMIUM	6.7	MG/KG	10	39.52	3.30
M	CHROMIUM	158	MG/KG	209	27.79	51.00
M	COPPER	28.9	MG/KG	32.8	12.64	3.90
M	LEAD	43.4	MG/KG	56.8	26.75	13.40
M	MERCURY	0.21	MG/KG	0.18	15.38	0.03
M	NICKEL	28.6	MG/KG	30.4	6.10	1.80
M	SELENIUM	1.3	MG/KG	1.4	7.41	0.10
M	SILVER	1.7	MG/KG	2.3	30.00	0.60
M	THALLIUM	0.21	MG/KG	0.24	13.33	0.03
M	ZINC	151	MG/KG	176	15.29	25.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H190588

FRACTION	CHEMICAL	SD-DUP3-SS	UNITS	SD-104-SS	RPD	D
M	ANTIMONY	0.59	MG/KG	0.5	16.51	0.09
M	ARSENIC	9.7	MG/KG	9	7.49	0.70
M	BERYLLIUM	2	MG/KG	1.8	10.53	0.20
M	CADMIUM	7.1	MG/KG	8.8	21.38	1.70
M	CHROMIUM	230	MG/KG	236	2.58	6.00
M	COPPER	64.4	MG/KG	60.4	6.41	4.00
M	LEAD	130	MG/KG	117	10.53	13.00
M	MERCURY	0.46	MG/KG	0.5	8.33	0.04
M	NICKEL	37.4	MG/KG	34.4	8.36	3.00
M	SELENIUM	2.2	MG/KG	1.9	14.63	0.30
M	SILVER	1.7	MG/KG	2	16.22	0.30
M	THALLIUM	0.26	MG/KG	0.24	8.00	0.02
M	ZINC	248	MG/KG	238	4.12	10.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

SD-104-01 1g/100mL

L5VTL 8/30/2010 11:57:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	75.693%	11.640	52.350	49.000	0.000	15370.000	25200.000	24960.000
2	23:59:02	73.946%	12.620	55.200	52.400	0.000	15860.000	25770.000	25550.000
3	23:59:45	74.047%	11.860	51.780	50.430	0.000	15840.000	25890.000	25590.000
x		74.562%	12.040	53.110	50.610	0.000	15690.000	25620.000	25370.000
σ		0.981%	0.513	1.830	1.706	0.000	277.500	369.100	356.400
%RSD		1.315	4.262	3.446	3.372	0.000	1.769	1.441	1.405

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	116300.000	1350.000	0.000	17280.000	9212.000	8757.000	68.757%	887.000
2	23:59:02	118400.000	1405.000	0.000	17430.000	9253.000	8741.000	68.768%	880.400
3	23:59:45	118400.000	1407.000	0.000	17600.000	9518.000	8829.000	69.030%	895.300
x		117700.000	1387.000	0.000	17430.000	9328.000	8776.000	68.851%	887.600
σ		1245.000	32.200	0.000	158.200	166.400	46.770	0.155%	7.461
%RSD		1.058	2.321	0.000	0.907	1.784	0.533	0.225	0.841

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	292.700	237.800	3325.000	241800.000	242600.000	106.800	173.700	165.300
2	23:59:02	292.700	238.900	3352.000	244100.000	244700.000	107.100	173.100	165.600
3	23:59:45	291.900	240.800	3389.000	245700.000	245500.000	107.400	172.600	167.300
x		292.400	239.200	3356.000	243900.000	244200.000	107.100	173.100	166.100
σ		0.480	1.538	32.210	1923.000	1510.000	0.312	0.589	1.075
%RSD		0.164	0.643	0.960	0.788	0.618	0.291	0.340	0.647

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	165.800	540.300	541.500	41.680	4.541	8.235	0.000	203.600
2	23:59:02	166.200	546.400	545.500	42.210	4.074	7.648	0.000	204.300
3	23:59:45	166.900	547.500	544.900	42.070	4.137	8.344	0.000	205.500
x		166.300	544.700	544.000	41.990	4.251	8.076	0.000	204.500
σ		0.574	3.858	2.175	0.272	0.254	0.374	0.000	0.947
%RSD		0.345	0.708	0.400	0.649	5.963	4.636	0.000	0.463

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	0.000	11.170	10.950	72.514%	0.567	0.415	3.192	2.626
2	23:59:02	0.000	11.260	11.380	73.254%	0.541	0.424	3.124	2.672
3	23:59:45	0.000	11.260	11.200	73.669%	0.576	0.476	3.189	2.618
x		0.000	11.230	11.180	73.146%	0.561	0.439	3.168	2.639
σ		0.000	0.057	0.220	0.585%	0.018	0.033	0.038	0.029
%RSD		0.000	0.506	1.965	0.800	3.205	7.509	1.203	1.115

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	73.714%	14.360	0.693	0.755	289.600	289.500	93.770%	94.954%
2	23:59:02	74.767%	14.190	0.696	0.762	288.500	288.700	94.830%	96.538%
3	23:59:45	75.243%	14.450	0.733	0.775	290.600	291.000	95.594%	97.497%
x		74.575%	14.330	0.707	0.764	289.600	289.700	94.731%	96.330%
σ		0.783%	0.128	0.022	0.010	1.026	1.166	0.916%	1.284%
%RSD		1.050	0.894	3.143	1.306	0.354	0.402	0.967	1.333

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	23:58:19	1.442	1.523	130.100	127.800	129.300	96.194%
2	23:59:02	1.543	1.520	129.700	127.500	129.100	98.292%
3	23:59:45	1.537	1.542	130.100	127.600	129.300	99.211%
x		1.507	1.528	130.000	127.600	129.200	97.899%
σ		0.057	0.012	0.212	0.138	0.140	1.547%
%RSD		3.760	0.776	0.163	0.108	0.108	1.580

$544.7\frac{\mu g}{L} \times \frac{0.1\,L}{1\,g} = 54.47\frac{\mu g}{g} \times \frac{1\,mg}{1000\,\mu g} \times \frac{1000\,g}{1\,kg} = 54.47\frac{mg}{kg}$ $\frac{1}{0.38\%S}$ = $71.67\frac{mg}{kg}$

SD-101-SS

SEM

Analysis Report 08/31/10 07:32:16 PM page 1

Method: METTRACE Sample Name: L5VR2 Operator: ACC
Run Time: 08/31/10 19:26:50
Comment: TESTAMERICA PITTSBURGH ICP METALS ANALYSIS - INST TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00115	30.496	.00855	.07258	.17714	.01400	15.624
SDev	.00027	.050	.00071	.00039	.00038	.00007	.033
%RSD	23.204	.16251	8.3461	.53839	.21202	.47593	.20994
#1	.00092	30.448	.00850	.07301	.17672	.01402	15.649
#2	.00108	30.495	.00929	.07226	.17723	.01404	15.635
#3	.00144	30.547	.00786	.07247	.17746	.01392	15.587
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	500.00	10.000	30.000	10.000	10.000	600.00
Low	-.00500	-.20000	-.01000	-.20000	-.20000	-.00400	-5.0000

Elem	CD	CO	CR	CU	FE	K_	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03580	.07569	.51730	.29936	130.82	6.9562	19.216
SDev	.00029	.00048	.00069	.00080	.14	.0271	.028
%RSD	.80063	.63846	.13420	.26668	.10436	.38988	.14564
#1	.03569	.07565	.51803	.29851	130.94	6.9315	19.237
#2	.03612	.07620	.51722	.29947	130.85	6.9520	19.227
#3	.03558	.07523	.51665	.30010	130.67	6.9852	19.184
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	50.000	20.000	10.000	500.00	400.00	600.00
Low	-.00500	-.05000	-.00500	-.02500	-.10000	-5.0000	-5.0000

Elem	MN	MO	NA	NI	PB/1	PB/2	PB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0013	-.00121	38.290	.11436	.88251	.89793	.89279
SDev	.0013	.00023	.140	.00054	.00588	.00530	.00315
%RSD	.06611	18.699	.36588	.47526	.66655	.58999	.35310
#1	2.0024	-.00101	38.196	.11490	.88392	.90265	.89641
#2	2.0016	-.00145	38.451	.11382	.87605	.89893	.89131
#3	1.9998	-.00116	38.222	.11435	.88756	.89220	.89065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	20.000	20.000	400.00	100.00			5.0000
Low	-.01500	-.04000	-5.0000	-.04000			-.00300

Elem	SB/1	SB/2	SB	SE/1	SE/2	SE	SI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00186	-.00158	-.00043	.02004	.01127	.01419	17.583
SDev	.00302	.00144	.00052	.00252	.00402	.00331	.019
%RSD	162.72	91.472	120.83	12.593	35.645	23.319	.10859
#1	.00185	-.00243	-.00100	.02289	.01504	.01766	17.603
#2	.00488	-.00239	.00003	.01810	.01172	.01385	17.581

$0.517\frac{mg}{L} \times \frac{1000ug}{1mg} \times \left(\frac{0.25L}{10g}\right)\left(\frac{1}{0.24}\right)\left(\frac{1mole}{52.0g}\right)\left(\frac{1g}{1\times10^6 ug}\right)\left(\frac{1\times10^6 umole}{1mole}\right) = \boxed{1.03\frac{umole}{g}}$

reported as $1.0\frac{umole}{g}$

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech NUS Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/19/10

Coolers Opened and Unpacked on: 8/19/10 By: MF

(Signature)

TestAmerica Pittsburgh Lot Number: _____

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?			✓
9.	Were all bottles sealed in separate plastic bags?		✓	
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?			✓
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1. 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

COH160588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154233
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528-3022 301-528-3000	Lab Number:	Page 1 of _____
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Hranac/age	Lab Contact:	
Project Name and Location (State): MRC Sediment Sampling, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals + Hg	PAH	PCB	Special Instructions/ Conditions of Receipt
SD-92-55	8/17/10	1510			X		X						X	X	X	
SD-92-01		1515			X		X						X	X	X	
SD-93-55		1555			X		X						X	X	X	
SD-93-01		1600			X		X						X	X	X	
SD-93-02		1605			X		X						X	X	X	
SD-93-04		1610			X		X						X	X	X	
SD-95-55		1655			X		X						X	X	X	
SD-95-01		1700			X		X						X	X	X	
SD-95-02		1705			X		X						X	X	X	
SD-95-04		1710			X		X						X	X	X	
SD-Dup1-01	8/17/10	1201			X		X						X	X	X	
SD-Dup2-04	8/18/10	1110			X		X						X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

		Date	Time
1. Relinquished By		8/18/10	1600
2. Relinquished By		8/19/10	1300
3. Relinquished By			
1. Received By		8/18/10	1600
2. Received By			
3. Received By		8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(11 - 364)

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA TECH	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154234
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301528 3000	Lab Number:	Page 2 of _____
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Armitage	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): MRC Sediment Samp, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP metals	PAH	PCB	TOC	AVS	SEM			Special Instructions/ Conditions of Receipt
SD-87-SS	8/18/10	0855			X		X						X	X	X	X	X	X			
SD-87-01	8/18/10	0857											X	X	X	X	X	X			
SD-87-02		0859											X	X	X	[redacted]	X	X			
SD-87-04		0901											X	X	X	[redacted]	X	X			
SD-101-SS		0955											X	X	X	X	X	X			
SD-101-01		0957											X	X	X	X	X	X			
SD-101-02		0959											X	X	X	X	X	X			
SD-101-04		1001											X	X	X		X	X			
SD-102-SS		1030											X	X	X	[redacted]					
SD-102-01		1032											X	X	X	[redacted]					
SD-102-02		1034											X	X	X	[redacted]					
SD-102-04	8/18/10	1036			X		X						X	X	X						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.		8/18/10	1600		8/18/10	1600
2.		8/18/10	1700			
3.					8/19/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(11 - 364)

COH190588

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA TECH	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154235
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3060	Lab Number:	Page 3 of ___
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Aponavage	Lab Contact:	
Project Name and Location (State): MRC Sed. sampling, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-103-SS	8/18/10	1233											X	X	X	
SD-103-01		1235											X	X	X	
SD-103-02		1237											X	X	X	
SD-104-SS		1320											X	X	X	
SD-104-01		1322											X	X	X	
SD-104-02		1324											X	X	X	
SD-104-04		1326											X	X	X	
SD-105-SS		1428											X	X	X	
SD-105-01		1430											X	X	X	
SD-105-02		1432											X	X	X	
SD-105-04		1434											X	X	X	
[redacted]-SD-Dup 3-SS	8/18/10	1215											X	X	X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date: 8/18/10	Time: 1600	1. Received By	Date: 8/18/10	Time: 1600
2. Relinquished By	Date: 8/18/10	Time: 1700	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/19/10	Time: 1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

COH190588

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154239
Address: 20251 Century Blvd. Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 4 of ____
City: Germantown	State: MD	Zip Code: 20874	Site Contact: Tony Apanavage	Lab Contact:
Project Name and Location (State): MRC Sed. Sampling. Middle River MD	Carrier/Waybill Number:
Contract/Purchase Order/Quote No.	

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-86-SS	8/18/10	1520											X	X	X	
SD-86-01	↓	1522											X	X	X	
SD-86-02	↓	1524											X	X	X	
SD-86-04	8/18/10	1526											X	X	X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date: 8/18/10	Time: 1600	1. Received By	Date: 8/18/10	Time: 1600
2. Relinquished By	Date: 8/18/10	Time: 1700	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/19/10	Time: 1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 364)

HOLDTIME

SDG C0H190588

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
AVS	UMOLE	SD-101-02	C0H190588019	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-101-01	C0H190588018	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-87-SS	C0H190588013	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-87-04	C0H190588016	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-87-02	C0H190588015	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-87-01	C0H190588014	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-101-SS	C0H190588017	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
AVS	UMOLE	SD-101-04	C0H190588020	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-SS	C0H190588013	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-04	C0H190588016	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-02	C0H190588015	NM	08/18/2010	08/31/2010	09/01/2010	13	1	14
SEM	UMOLE	SD-87-02	C0H190588015	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-01	C0H190588014	NM	08/18/2010	08/31/2010	09/01/2010	13	1	14
SEM	UMOLE	SD-101-SS	C0H190588017	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-SS	C0H190588013	NM	08/18/2010	08/31/2010	09/01/2010	13	1	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SEM	UMOLE	SD-101-01	C0H190588018	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-87-01	C0H190588014	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-101-02	C0H190588019	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
SEM	UMOLE	SD-101-04	C0H190588020	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-87-01	C0H190588014	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-104-SS	C0H190588028	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-105-01	C0H190588033	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-105-02	C0H190588034	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-105-04	C0H190588035	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-105-SS	C0H190588032	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-86-01	C0H190588038	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-86-02	C0H190588039	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-104-02	C0H190588030	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-86-SS	C0H190588037	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-104-01	C0H190588029	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-87-02	C0H190588015	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-87-04	C0H190588016	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-87-SS	C0H190588013	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-92-01	C0H190588002	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-92-SS	C0H190588001	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-93-01	C0H190588004	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-93-02	C0H190588005	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-86-04	C0H190588040	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-101-04	C0H190588020	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-93-SS	C0H190588003	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-95-01	C0H190588008	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-95-02	C0H190588009	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-95-04	C0H190588010	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-95-SS	C0H190588007	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-DUP1-01	C0H190588011	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-DUP2-04	C0H190588012	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-DUP3-SS	C0H190588036	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-104-04	C0H190588031	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-101-02	C0H190588019	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
HG	MG/KG	SD-103-SS	C0H190588025	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-101-SS	C0H190588017	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-102-01	C0H190588022	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-102-02	C0H190588023	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-93-04	C0H190588006	NM	08/17/2010	08/25/2010	08/25/2010	8	0	8
HG	MG/KG	SD-102-04	C0H190588024	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-102-SS	C0H190588021	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-103-01	C0H190588026	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-103-02	C0H190588027	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
HG	MG/KG	SD-101-01	C0H190588018	NM	08/18/2010	08/25/2010	08/25/2010	7	0	7
M	MG/KG	SD-DUP1-01	C0H190588011	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-DUP3-SS	C0H190588036	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-DUP2-04	C0H190588012	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-93-SS	C0H190588003	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-102-SS	C0H190588021	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-95-02	C0H190588009	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-104-SS	C0H190588028	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-104-04	C0H190588031	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-104-02	C0H190588030	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-104-01	C0H190588029	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-103-SS	C0H190588025	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-105-02	C0H190588034	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-103-01	C0H190588026	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-105-04	C0H190588035	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-102-04	C0H190588024	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-102-02	C0H190588023	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-102-01	C0H190588022	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-101-SS	C0H190588017	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-101-04	C0H190588020	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-101-02	C0H190588019	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-101-01	C0H190588018	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-103-02	C0H190588027	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-87-04	C0H190588016	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-93-04	C0H190588006	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-93-02	C0H190588005	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-93-01	C0H190588004	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-92-SS	C0H190588001	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-92-01	C0H190588002	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-105-01	C0H190588033	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-95-01	C0H190588008	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-95-SS	C0H190588007	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
M	MG/KG	SD-87-SS	C0H190588013	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-87-02	C0H190588015	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-87-01	C0H190588014	NM	08/18/2010	08/30/2010	08/30/2010	12	0	12
M	MG/KG	SD-86-SS	C0H190588037	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-86-04	C0H190588040	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-86-02	C0H190588039	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-86-01	C0H190588038	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-105-SS	C0H190588032	NM	08/18/2010	08/30/2010	08/31/2010	12	1	13
M	MG/KG	SD-95-04	C0H190588010	NM	08/17/2010	08/30/2010	08/30/2010	13	0	13
TOC	MG/KG	SD-101-02	C0H190588019	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
TOC	MG/KG	SD-87-02	C0H190588015	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
TOC	MG/KG	SD-87-SS	C0H190588013	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
TOC	MG/KG	SD-101-SS	C0H190588017	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
TOC	MG/KG	SD-101-01	C0H190588018	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6
TOC	MG/KG	SD-87-01	C0H190588014	NM	08/18/2010	08/23/2010	08/24/2010	5	1	6

Test America Pittsburgh
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METHOD DETECTION LIMITS

Client: TETRA TECH **SDG No.:** C0H190588

Analyte	Mass	MDL ug/L	CRQL ug/L
ICPMS	**MDL Date:**	6/6/2009	
Antimony	121	0.026	2
Arsenic	75	0.18	1
Barium	137	0.1	10
Beryllium	9	0.075	1
Cadmium	111	0.070	1
Chromium	52	0.06	2
Copper	65	0.33	2
Lead	208	0.038	1
Nickel	60	0.1	1
Selenium	82	0.50	5
Silver	107	0.04	1
Thallium	205	0.020	1
Zinc	66	0.65	5

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Cadmium	226.502	5.0	0.16	10/18/2006
Chromium	267.716	5.0	0.44	10/18/2006
Copper	324.753	25.0	2.2	10/18/2006
Lead	220.353	3.0	2.0	10/18/2006
Nickel	231.604	40.0	1.2	10/18/2006
Silver	328.068	5.0	0.58	10/18/2006
Zinc	213.856	20.0	7.4	10/18/2006

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Zinc	213.856	20.0	7.4	10/18/2006

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Mercury	253.700	0.2	0.011	3/23/2009

TestAmerica Pittsburgh

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPST **Date of IEC's:** 4/20/2010

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(-0.000318)
Aluminum	308.215	Pb(0.000477)
Chromium	267.716	As(-0.00295), Sb(0.012594)
Chromium	267.716	Sb(0.009364)
Cobalt	228.616	Se(-0.000299)
Cobalt	228.616	Cd(-0.000084), Fe(0.090141), Ni(-0.000508), Pb(-0.000654), Se(0.000533), Tl(0.003584)
Iron	271.441	Pb(0.000042), Sb(0.000025), Se(-0.000293)
Iron	271.441	Cd(0.000107), Cr(-0.000009), Na(-0.011761), Pb(0.000091), Sb(0.000019), Tl(-0.000132), V(-0.000294), Zn(0.000085)
Magnesium	279.078	Fe(-0.00036)
Manganese	257.61	Se(0.000325)
Manganese	257.61	Se(0.000488), Tl(0.000898)
Molybdenum	202.03	Pb(-0.000822), Sb(-0.009931)
Molybdenum	202.03	Al(0.010528), As(-0.001414), Pb(-0.000516), Sb(-0.001395), Tl(-0.006809)
Nickel	231.604	Pb(0.00024)
Nickel	231.604	Pb(0.000123), Sb(-0.001038), Zn(0.004394)
Tin	189.989	Sb(-0.00526)
Titanium	334.941	Co(0.002053), Pb(0.000261), Sb(0.001182), Tl(0.000666)
Titanium	334.941	Pb(-0.000607)
Vanadium	292.402	Be(-1093), Cr(-0.00011), Fe(0.007572), Pb(-0.000432)
Vanadium	292.402	Al(0.017382), Sb(-0.008105), Se(0.00025), Tl(0.002337)

Test America Pittsburgh

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LINEAR RANGES

Client: TETRA TECH **SDG No.:** C0H190588

Contract: **Lab Code:** STL Pitt **Case No.:** **SAS No.:**

Instrument ID: ICPMS **Date:** 8/8/2010

Analyte	LDR ug/L
Antimony	20000
Arsenic	4500
Barium	13500
Beryllium	9000
Cadmium	13500
Chromium	13500
Copper	20000
Lead	20000
Nickel	13500
Selenium	4500
Silver	2500
Thallium	13500
Zinc	20000

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Cadmium	226.50	5000	7/21/2010
Chromium	267.72	20000	7/21/2010
Copper	324.75	10000	7/21/2010
Lead	220.35	5000	7/21/2010
Nickel	231.60	100000	7/21/2010
Silver	328.07	2000	7/21/2010
Zinc	213.86	5000	7/21/2010

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Zinc	213.86	5000	7/21/2010

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	6/28/2010

Test America Pittsburgh

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ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0H190588

ICP-MS Instrument ID: ICPMS Date: 8/30/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be_9	9.06218	0.75000	0.8460
Mg_24	23.955041	0.65000	0.9260
Mg_25	24.95583	0.63000	2.6460
Mg_26	25.93259	0.61000	1.2370
Co_59	58.903189	0.71000	0.3390
In_113	112.974404	0.73000	1.1160
In_115	114.97387	0.73000	0.1930
Ce_140	139.975441	0.73000	0.3710
Pb_206	206.024457	0.65000	0.5160
Pb_207	207.025876	0.65000	0.7270
Pb_208	208.026639	0.67000	0.6860

Comments:

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0H250000-023 **Prep Batch #...:** 0237023						
Mercury	ND	0.016	mg/kg	SW846 7471A	08/25/10	L531W1AA
		Dilution Factor: 0.5				
		Analysis Time..: 08:05		Analyst ID.....: 031043	Instrument ID..: HGH	
MB Lot-Sample #: C0H300000-022 **Prep Batch #...:** 0242022						
Mercury	ND	0.016	mg/kg	SW846 7471A	08/30/10	L59W01AA
		Dilution Factor: 0.5				
		Analysis Time..: 09:46		Analyst ID.....: 031043	Instrument ID..: HGH	
MB Lot-Sample #: C0H300000-185 **Prep Batch #...:** 0242185						
Antimony	ND	0.10	mg/kg	SW846 6020	08/30/10	L597J1AK
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AC
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AD
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AE
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	ND	0.10	mg/kg	SW846 6020	08/30/10	L597J1AF
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	08/30/10	L597J1AG
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AJ
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AH
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	ND	0.25	mg/kg	SW846 6020	08/30/10	L597J1AL
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AA
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597J1AM
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	08/30/10	L597J1AN
		Dilution Factor: 0.5				
		Analysis Time..: 20:05		Analyst ID.....: 400149	Instrument ID..: ICP	

MB Lot-Sample #: C0H300000-192 **Prep Batch #...:** 0242192

Antimony	ND	0.10	mg/kg	SW846 6020	08/30/10	L597M1AK
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AC
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AD
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AE
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.010 B**	**0.10**	**mg/kg**	**SW846 6020**	**08/30/10**	**L597M1AF**
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	08/30/10	L597M1AG
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AJ
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AH
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	08/30/10	L597M1AL
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AA
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	08/30/10	L597M1AM
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	08/30/10	L597M1AN
		Dilution Factor: 0.5				
		Analysis Time..: 22:44		Analyst ID.....: 400149	Instrument ID..: ICP	

MB Lot-Sample #: C0H310000-148 **Prep Batch #...:** 0243148

Chromium	**0.0010 B**	**0.0024**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L6A571AT**
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	
Silver	ND	0.0012	umoles/gm	EPA SEM	08/31/10	L6A571AU
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	
Cadmium	ND	0.0011	umoles/gm	EPA SEM	08/31/10	L6A571AA
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	
Copper	**0.0025 B**	**0.0098**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L6A571AC**
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	
Nickel	**0.00066 B**	**0.017**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L6A571AD**
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	
Lead	ND	0.00072	umoles/gm	EPA SEM	08/31/10	L6A571AE
		Dilution Factor: 1				
		Analysis Time..: 00:00		Analyst ID.....: 403938	Instrument ID..: TRA	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**0.019 B**	**0.038**	**umoles/gm**	**EPA SEM**	**08/31/10**	**L6A571AF**

Dilution Factor: 1
Analysis Time..: 00:00 Analyst ID.....: 403938 Instrument ID..: TRA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	99	(80 - 120)			EPA SEM	08/31/10	0243148
	95	(80 - 120)	4.2	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Silver	95	(80 - 120)			EPA SEM	08/31/10	0243148
	93	(80 - 120)	2.5	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Cadmium	92	(80 - 120)			EPA SEM	08/31/10	0243148
	91	(80 - 120)	1.2	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Copper	102	(80 - 120)			EPA SEM	08/31/10	0243148
	99	(80 - 120)	2.7	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Nickel	97	(80 - 120)			EPA SEM	08/31/10	0243148
	96	(80 - 120)	1.8	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Lead	97	(80 - 120)			EPA SEM	08/31/10	0243148
	96	(80 - 120)	0.73	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Zinc	106	(80 - 120)			EPA SEM	08/31/10	0243148
	104	(80 - 120)	2.0	(0-20)	EPA SEM	08/31/10	0243148
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0H250000-023 **Prep Batch #...:** 0237023					
Mercury	100	(80 - 120)	SW846 7471A	08/25/10	L531W1AC
		Dilution Factor: 0.5	Analysis Time..: 08:07	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0H300000-022 **Prep Batch #...:** 0242022					
Mercury	99	(80 - 120)	SW846 7471A	08/30/10	L59W01AC
		Dilution Factor: 0.5	Analysis Time..: 09:48	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0H300000-185 **Prep Batch #...:** 0242185					
Silver	96	(80 - 120)	SW846 6020	08/30/10	L597J1AP
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	94	(80 - 120)	SW846 6020	08/30/10	L597J1AQ
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	94	(80 - 120)	SW846 6020	08/30/10	L597J1AR
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	98	(80 - 120)	SW846 6020	08/30/10	L597J1AT
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	97	(80 - 120)	SW846 6020	08/30/10	L597J1AU
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	105	(80 - 120)	SW846 6020	08/30/10	L597J1AV
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Nickel	103	(80 - 120)	SW846 6020	08/30/10	L597J1AW
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	99	(80 - 120)	SW846 6020	08/30/10	L597J1AX
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	93	(80 - 120)	SW846 6020	08/30/10	L597J1A0
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Selenium	99	(80 - 120)	SW846 6020	08/30/10	L597J1A1
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Thallium	99	(80 - 120)	SW846 6020	08/30/10	L597J1A2
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	110	(80 - 120)	SW846 6020	08/30/10	L597J1A3
		Dilution Factor: 0.5	Analysis Time..: 20:09	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
LCS Lot-Sample#: C0H300000-192		**Prep Batch #...:** 0242192			
Silver	96	(80 - 120)	SW846 6020	08/30/10	L597M1AP
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	94	(80 - 120)	SW846 6020	08/30/10	L597M1AQ
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	95	(80 - 120)	SW846 6020	08/30/10	L597M1AR
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	95	(80 - 120)	SW846 6020	08/30/10	L597M1AT
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	98	(80 - 120)	SW846 6020	08/30/10	L597M1AU
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	106	(80 - 120)	SW846 6020	08/30/10	L597M1AV
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	106	(80 - 120)	SW846 6020	08/30/10	L597M1AW
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Lead	99	(80 - 120)	SW846 6020	08/30/10	L597M1AX
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	94	(80 - 120)	SW846 6020	08/30/10	L597M1A0
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Selenium	96	(80 - 120)	SW846 6020	08/30/10	L597M1A1
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Thallium	98	(80 - 120)	SW846 6020	08/30/10	L597M1A2
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	107	(80 - 120)	SW846 6020	08/30/10	L597M1A3
		Dilution Factor: 0.5	Analysis Time..: 22:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/19/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H190588-001 **Prep Batch #...:** 0237023							
						% Moisture.....: 47	
Mercury	107	(75 - 125)			SW846 7471A	08/25/10	L5VQ71AV
	107	(75 - 125)	0.0	(0-20)	SW846 7471A	08/25/10	L5VQ71AW
		Dilution Factor: 0.5					
		Analysis Time..: 08:10			Instrument ID..: HGHYDRA	Analyst ID.....: 031043	
		MS Run #.....: 0237010					
		60-92-55					
MS Lot-Sample #: C0H190588-001 **Prep Batch #...:** 0242185							
						% Moisture.....: 47	
Antimony	52 N	(75 - 125)			SW846 6020	08/30/10	L5VQ71CG
	58 N	(75 - 125)	11	(0-20)	SW846 6020	08/30/10	L5VQ71CH
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Arsenic	91	(75 - 125)			SW846 6020	08/30/10	L5VQ71A1
	109	(75 - 125)	9.0	(0-20)	SW846 6020	08/30/10	L5VQ71A2
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Beryllium	93	(75 - 125)			SW846 6020	08/30/10	L5VQ71A3
	96	(75 - 125)	2.1	(0-20)	SW846 6020	08/30/10	L5VQ71A4
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Cadmium	88	(75 - 125)			SW846 6020	08/30/10	L5VQ71A5
	92	(75 - 125)	4.7	(0-20)	SW846 6020	08/30/10	L5VQ71A6
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Chromium	113	(75 - 125)			SW846 6020	08/30/10	L5VQ71A7
	118	(75 - 125)	2.5	(0-20)	SW846 6020	08/30/10	L5VQ71A8
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID
Date Sampled...: 08/17/10 **Date Received..:** 08/19/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	88	(75 - 125)			SW846 6020	08/30/10	L5VQ71A9
	93	(75 - 125)	3.7	(0-20)	SW846 6020	08/30/10	L5VQ71CA
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Lead	185 N	(75 - 125)			SW846 6020	08/30/10	L5VQ71CE
	227 N	(75 - 125)	8.7	(0-20)	SW846 6020	08/30/10	L5VQ71CF
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Nickel	91	(75 - 125)			SW846 6020	08/30/10	L5VQ71CC
	94	(75 - 125)	2.2	(0-20)	SW846 6020	08/30/10	L5VQ71CD
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Selenium	91	(75 - 125)			SW846 6020	08/30/10	L5VQ71CJ
	99	(75 - 125)	4.6	(0-20)	SW846 6020	08/30/10	L5VQ71CK
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Silver	84	(75 - 125)			SW846 6020	08/30/10	L5VQ71AX
	87	(75 - 125)	3.8	(0-20)	SW846 6020	08/30/10	L5VQ71A0
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Thallium	90	(75 - 125)			SW846 6020	08/30/10	L5VQ71CL
	95	(75 - 125)	4.5	(0-20)	SW846 6020	08/30/10	L5VQ71CM
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					
Zinc	105	(75 - 125)			SW846 6020	08/30/10	L5VQ71CN
	115	(75 - 125)	5.2	(0-20)	SW846 6020	08/30/10	L5VQ71CP
		Dilution Factor: 0.5					
		Analysis Time..: 20:39			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242093					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H190588 **Matrix.....:** SOLID
Date Sampled...: 08/18/10 **Date Received..:** 08/19/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H190588-021 **Prep Batch #...:** 0242022						**% Moisture.....:** 72	
Mercury	107	(75 - 125)			SW846 7471A	08/30/10	L5VR71AV
	113	(75 - 125)	2.2	(0-20)	SW846 7471A	08/30/10	L5VR71AW
		Dilution Factor: 0.5					
		Analysis Time..: 09:51			Instrument ID..: HGHYDRA	Analyst ID.....: 031043	
		MS Run #.....: 0242008					
50-102-SS							
MS Lot-Sample #: C0H190588-021 **Prep Batch #...:** 0242192						**% Moisture.....:** 72	
Antimony	51 N	(75 - 125)			SW846 6020	08/30/10	L5VR71CG
	54 N	(75 - 125)	4.0	(0-20)	SW846 6020	08/30/10	L5VR71CH
		Dilution Factor: 0.5					
		Analysis Time..: 23:01			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242096					
Arsenic	100	(75 - 125)			SW846 6020	08/30/10	L5VR71A1
	92	(75 - 125)	3.6	(0-20)	SW846 6020	08/30/10	L5VR71A2
		Dilution Factor: 0.5					
		Analysis Time..: 23:01			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242096					
Beryllium	95	(75 - 125)			SW846 6020	08/30/10	L5VR71A3
	89	(75 - 125)	5.4	(0-20)	SW846 6020	08/30/10	L5VR71A4
		Dilution Factor: 0.5					
		Analysis Time..: 23:01			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242096					
Cadmium	97	(75 - 125)			SW846 6020	08/30/10	L5VR71A5
	90	(75 - 125)	4.7	(0-20)	SW846 6020	08/30/10	L5VR71A6
		Dilution Factor: 0.5					
		Analysis Time..: 23:01			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242096					
Chromium	150 N	(75 - 125)			SW846 6020	08/30/10	L5VR71A7
	110	(75 - 125)	7.9	(0-20)	SW846 6020	08/30/10	L5VR71A8
		Dilution Factor: 0.5					
		Analysis Time..: 23:01			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0242096					

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Sample List 8-3-10

No	Label	Type	Weight	Rack	Row	Col	Height
1	PERFORMANCE REPORT	Instrument Setup	1.000	1	1	1	155
2	STD1 MET4336-10 INT STD	Blank	1.000	0	1	1	155
3	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
4	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
5	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
6	ICB1	QC Sample	1.000	0	1	9	155
7	CRI MET4062-10	QC Sample	1.000	0	1	6	155
8	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
9	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
10	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
11	CCB1	QC Sample	1.000	0	1	9	155
12	L57DVB	Unknown	1.000	1	1	2	155
13	L5N1DF/10	Unknown	1.000	1	1	3	155
14	L5N1NF/10	Unknown	1.000	1	1	4	155
15	L5N1TF/10	Unknown	1.000	1	1	5	155
16	L5N1VF/10	Unknown	1.000	1	1	6	155
17	L5N10F/10	Unknown	1.000	1	1	7	155
18	L5N13F/10	Unknown	1.000	1	1	8	155
19	L5Q31F/10	Unknown	1.000	1	1	9	155
20	L5Q33F/10	Unknown	1.000	1	1	10	155
21	L5VA7F/10	Unknown	1.000	1	1	11	155
22	CCV1-2	QC Sample	1.000	0	1	4	155
23	CCB2	QC Sample	1.000	0	1	9	155
24	L5VCEF/10	Unknown	1.000	1	1	12	155
25	L5N1D/10	Unknown	1.000	1	2	1	155
26	L5N1N/10	Unknown	1.000	1	2	2	155
27	L5N1T/10	Unknown	1.000	1	2	3	155
28	L5N1V/10	Unknown	1.000	1	2	4	155
29	L5N10/10	Unknown	1.000	1	2	5	155
30	L5N13/10	Unknown	1.000	1	2	6	155
31	L5QNA/10	Unknown	1.000	1	2	7	155
32	L5QNT/10	Unknown	1.000	1	2	8	155
33	L5Q31/10	Unknown	1.000	1	2	9	155
34	CCV1-3	QC Sample	1.000	0	1	4	155
35	CCB3	QC Sample	1.000	0	1	9	155
36	L5Q33/10	Unknown	1.000	1	2	10	155
37	L5VA7/10	Unknown	1.000	1	2	11	155
38	L5VCE/10	Unknown	1.000	1	2	12	155
39	L5M3TBF	Unknown	1.000	1	3	1	155
40	L5M3TCF	Unknown	1.000	1	3	2	155
41	L47K9F	Unknown	1.000	1	3	3	155
42	L47LFF	Unknown	1.000	1	3	4	155
43	L47LFP5F	Unknown	1.000	1	3	5	155
44	L47LFSF	Unknown	1.000	1	3	6	155
45	L47LFDF	Unknown	1.000	1	3	7	155
46	CCV1-4	QC Sample	1.000	0	1	4	155
47	CCB4	QC Sample	1.000	0	1	9	155
48	L47LDF	Unknown	1.000	1	3	8	155
49	L47LLF	Unknown	1.000	1	3	9	155
50	L47LNF	Unknown	1.000	1	3	10	155
51	L47LPF	Unknown	1.000	1	3	11	155
52	L47LRF	Unknown	1.000	1	3	12	155
53	L5M36B	Unknown	1.000	1	4	1	155
54	L5M36C	Unknown	1.000	1	4	2	155
55	L47K9	Unknown	1.000	1	4	3	155
56	L47LD	Unknown	1.000	1	4	4	155
57	L47LF	Unknown	1.000	1	4	5	155
58	CCV1-5	QC Sample	1.000	0	1	4	155
59	CCB5	QC Sample	1.000	0	1	9	155
60	L47LFP5	Unknown	1.000	1	4	6	155
61	L47LFS	Unknown	1.000	1	4	7	155
62	L47LFD	Unknown	1.000	1	4	8	155
63	L47LL	Unknown	1.000	1	4	9	155
64	L47LN	Unknown	1.000	1	4	10	155
65	L47LP	Unknown	1.000	1	4	11	155
66	L597JB	Unknown	1.000	1	4	12	155
67	L597JC	Unknown	1.000	1	5	1	155

68	L5VQ7	Unknown	1.000	1	5	2	155
69	L5VQ7P5	Unknown	1.000	1	5	3	155
70	CCV1-6	QC Sample	1.000	0	1	4	155
71	CCB6	QC Sample	1.000	0	1	9	155
72	L5VQ7S	Unknown	1.000	1	5	4	155
73	L5VQ7D	Unknown	1.000	1	5	5	155
74	L5VQ8	Unknown	1.000	1	5	6	155
75	L5VQ9	Unknown	1.000	1	5	7	155
76	L5VRD	Unknown	1.000	1	5	8	155
77	L5VRE	Unknown	1.000	1	5	9	155
78	L5VRG	Unknown	1.000	1	5	10	155
79	L5VRH	Unknown	1.000	1	5	11	155
80	L5VRJ	Unknown	1.000	1	5	12	155
81	L5VRK	Unknown	1.000	2	1	1	155
82	CCV1-7	QC Sample	1.000	0	1	4	155
83	CCB7	QC Sample	1.000	0	1	9	155
84	L5VRL	Unknown	1.000	2	1	2	155
85	L5VRM	Unknown	1.000	2	1	3	155
86	L5VRP	Unknown	1.000	2	1	4	155
87	L5VRR	Unknown	1.000	2	1	5	155
88	L5VRT	Unknown	1.000	2	1	6	155
89	L5VRX	Unknown	1.000	2	1	7	155
90	L5VR0	Unknown	1.000	2	1	8	155
91	L5VR2	Unknown	1.000	2	1	9	155
92	L5VR3	Unknown	1.000	2	1	10	155
93	L5VR4	Unknown	1.000	2	1	11	155
94	CCV1-8	QC Sample	1.000	0	1	4	155
95	CCB8	QC Sample	1.000	0	1	9	155
96	L5VR6	Unknown	1.000	2	1	12	155
97	L597MB	Unknown	1.000	2	2	1	155
98	L597MC	Unknown	1.000	2	2	2	155
99	L5VR7	Unknown	1.000	2	2	3	155
100	L5VR7P5	Unknown	1.000	2	2	4	155
101	L5VR7S	Unknown	1.000	2	2	5	155
102	L5VR7D	Unknown	1.000	2	2	6	155
103	L5VR9	Unknown	1.000	2	2	7	155
104	L5VTC	Unknown	1.000	2	2	8	155
105	L5VTD	Unknown	1.000	2	2	9	155
106	CCV1-9	QC Sample	1.000	0	1	4	155
107	CCB9	QC Sample	1.000	0	1	9	155
108	L5VTE	Unknown	1.000	2	2	10	155
109	L5VTG	Unknown	1.000	2	2	11	155
110	L5VTH	Unknown	1.000	2	2	12	155
111	L5VTK	Unknown	1.000	2	3	1	155
112	L5VTL	Unknown	1.000	2	3	2	155
113	L5VTM	Unknown	1.000	2	3	3	155
114	L5VTN	Unknown	1.000	2	3	4	155
115	L5VTP	Unknown	1.000	2	3	5	155
116	L5VTT	Unknown	1.000	2	3	6	155
117	L5VTV	Unknown	1.000	2	3	7	155
118	CCV1-10	QC Sample	1.000	0	1	4	155
119	CCB10	QC Sample	1.000	0	1	9	155
120	L5VTW	Unknown	1.000	2	3	8	155
121	L5VTX	Unknown	1.000	2	3	9	155
122	L5VT0	Unknown	1.000	2	3	10	155
123	L5VT1	Unknown	1.000	2	3	11	155
124	L5VT2	Unknown	1.000	2	3	12	155
125	L5VT3	Unknown	1.000	2	4	1	155
126	CCV1-11	QC Sample	1.000	0	1	4	155
127	CCB11	QC Sample	1.000	0	1	9	155

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			**ICV1 MET4061-10**						
	Antimony	0.0831	0.0800	103.9	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Arsenic	0.0799	0.0800	99.9	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Barium	0.0817	0.0800	102.1	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Beryllium	0.0817	0.0800	102.1	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Cadmium	0.0813	0.0800	101.6	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Chromium	0.0796	0.0800	99.5	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Copper	0.0810	0.0800	101.2	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Lead	0.0789	0.0800	98.6	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Nickel	0.0812	0.0800	101.5	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Selenium	0.0803	0.0800	100.4	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Silver	0.0816	0.0800	102.0	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Thallium	0.0825	0.0800	103.1	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
	Zinc	0.0836	0.0800	104.5	90.0 - 110.0	MS	8/30/2010	14:52	M00830A, gen
CCV1			**CCV1-1 MET4282-10**						
	Antimony	0.0971	0.1000	97.1	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Arsenic	0.0991	0.1000	99.1	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Barium	0.0980	0.1000	98.0	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Beryllium	0.1004	0.1000	100.4	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Cadmium	0.0990	0.1000	99.0	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Chromium	0.0967	0.1000	96.7	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Copper	0.0996	0.1000	99.6	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Lead	0.1056	0.1000	105.6	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Nickel	0.1008	0.1000	100.8	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Selenium	0.1010	0.1000	101.0	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Silver	0.0988	0.1000	98.8	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Thallium	0.1057	0.1000	105.7	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen
	Zinc	0.1051	0.1000	105.1	90.0 - 110.0	MS	8/30/2010	15:19	M00830A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0965	0.1000	96.5	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Arsenic	0.0991	0.1000	99.1	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Barium	0.0975	0.1000	97.5	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Beryllium	0.0996	0.1000	99.6	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Cadmium	0.0988	0.1000	98.8	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Chromium	0.0970	0.1000	97.0	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Copper	0.0995	0.1000	99.5	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Lead	0.1002	0.1000	100.2	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Nickel	0.1014	0.1000	101.4	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Selenium	0.0995	0.1000	99.5	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Silver	0.0981	0.1000	98.1	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Thallium	0.1004	0.1000	100.4	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
	Zinc	0.1048	0.1000	104.8	90.0 - 110.0	MS	8/30/2010	16:20	M00830A, gen
CCV3			CCV1-3						
	Antimony	0.0969	0.1000	96.9	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Arsenic	0.1000	0.1000	100.0	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Barium	0.0985	0.1000	98.5	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Beryllium	0.0969	0.1000	96.9	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Cadmium	0.0987	0.1000	98.7	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Chromium	0.0970	0.1000	97.0	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Copper	0.0998	0.1000	99.8	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Lead	0.1025	0.1000	102.5	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Nickel	0.1007	0.1000	100.7	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Selenium	0.1015	0.1000	101.5	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Silver	0.0981	0.1000	98.1	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Thallium	0.1028	0.1000	102.8	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen
	Zinc	0.1035	0.1000	103.5	90.0 - 110.0	MS	8/30/2010	17:17	M00830A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4			**CCV1-4**						
	Antimony	0.0963	0.1000	96.3	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Arsenic	0.0981	0.1000	98.1	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Barium	0.0963	0.1000	96.3	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Beryllium	0.0972	0.1000	97.2	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Cadmium	0.0986	0.1000	98.6	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Chromium	0.0962	0.1000	96.2	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Copper	0.0996	0.1000	99.6	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Lead	0.1063	0.1000	106.3	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Nickel	0.1011	0.1000	101.1	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Selenium	0.0982	0.1000	98.2	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Thallium	0.1064	0.1000	106.4	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
	Zinc	0.1079	0.1000	107.9	90.0 - 110.0	MS	8/30/2010	18:20	M00830A, gen
CCV5			**CCV1-5**						
	Antimony	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Arsenic	0.1007	0.1000	100.7	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Barium	0.0976	0.1000	97.6	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Beryllium	0.0978	0.1000	97.8	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Cadmium	0.0993	0.1000	99.3	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Chromium	0.0978	0.1000	97.8	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Copper	0.1001	0.1000	100.1	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Lead	0.1003	0.1000	100.3	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Nickel	0.1020	0.1000	102.0	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Selenium	0.1017	0.1000	101.7	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Silver	0.0976	0.1000	97.6	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Thallium	0.1007	0.1000	100.7	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen
	Zinc	0.1061	0.1000	106.1	90.0 - 110.0	MS	8/30/2010	19:21	M00830A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6			**CCV1-6**						
	Antimony	0.0971	0.1000	97.1	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Arsenic	0.1004	0.1000	100.4	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Barium	0.0980	0.1000	98.0	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Beryllium	0.0958	0.1000	95.8	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Cadmium	0.0982	0.1000	98.2	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Chromium	0.0978	0.1000	97.8	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Copper	0.1010	0.1000	101.0	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Lead	0.1048	0.1000	104.8	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Nickel	0.1027	0.1000	102.7	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Selenium	0.0998	0.1000	99.8	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Thallium	0.1044	0.1000	104.4	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
	Zinc	0.1068	0.1000	106.8	90.0 - 110.0	MS	8/30/2010	20:28	M00830A, gen
CCV7			**CCV1-7**						
	Antimony	0.0964	0.1000	96.4	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Arsenic	0.0985	0.1000	98.5	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Barium	0.0968	0.1000	96.8	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Beryllium	0.0977	0.1000	97.7	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Cadmium	0.0988	0.1000	98.8	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Chromium	0.0982	0.1000	98.2	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Copper	0.1013	0.1000	101.3	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Lead	0.1051	0.1000	105.1	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Nickel	0.1034	0.1000	103.4	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Selenium	0.0975	0.1000	97.5	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Silver	0.0970	0.1000	97.0	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Thallium	0.1051	0.1000	105.1	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen
	Zinc	0.1077	0.1000	107.7	90.0 - 110.0	MS	8/30/2010	21:28	M00830A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV8			**CCV1-8**						
	Antimony	0.0961	0.1000	96.1	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Arsenic	0.1001	0.1000	100.1	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Barium	0.0974	0.1000	97.4	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Beryllium	0.0990	0.1000	99.0	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Cadmium	0.0982	0.1000	98.2	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Chromium	0.0979	0.1000	97.9	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Copper	0.1014	0.1000	101.4	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Lead	0.1034	0.1000	103.4	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Nickel	0.1038	0.1000	103.8	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Selenium	0.1002	0.1000	100.2	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Silver	0.0967	0.1000	96.7	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Thallium	0.1035	0.1000	103.5	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
	Zinc	0.1076	0.1000	107.6	90.0 - 110.0	MS	8/30/2010	22:25	M00830A, gen
CCV9			**CCV1-9**						
	Antimony	0.0967	0.1000	96.7	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Arsenic	0.1013	0.1000	101.3	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Barium	0.0976	0.1000	97.6	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Beryllium	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Cadmium	0.0977	0.1000	97.7	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Chromium	0.0980	0.1000	98.0	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Copper	0.1015	0.1000	101.5	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Lead	0.1030	0.1000	103.0	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Nickel	0.1046	0.1000	104.6	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Selenium	0.1008	0.1000	100.8	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Silver	0.0963	0.1000	96.3	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Thallium	0.1029	0.1000	102.9	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen
	Zinc	0.1076	0.1000	107.6	90.0 - 110.0	MS	8/30/2010	23:28	M00830A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H190588

Initial Calibration Source: **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10			**CCV1-10**						
	Antimony	0.0969	0.1000	96.9	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Arsenic	0.1021	0.1000	102.1	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Barium	0.0977	0.1000	97.7	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Beryllium	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Cadmium	0.0981	0.1000	98.1	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Chromium	0.0990	0.1000	99.0	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Copper	0.1032	0.1000	103.2	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Lead	0.1026	0.1000	102.6	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Nickel	0.1054	0.1000	105.4	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Selenium	0.1013	0.1000	101.3	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Silver	0.0963	0.1000	96.3	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Thallium	0.1022	0.1000	102.2	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
	Zinc	0.1082	0.1000	108.2	90.0 - 110.0	MS	8/31/2010	00:26	M00830A, gen
CCV11			**CCV1-11**						
	Antimony	0.0966	0.1000	96.6	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Arsenic	0.1012	0.1000	101.2	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Barium	0.0992	0.1000	99.2	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Beryllium	0.1007	0.1000	100.7	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Cadmium	0.0973	0.1000	97.3	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Chromium	0.0982	0.1000	98.2	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Copper	0.1012	0.1000	101.2	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Lead	0.1005	0.1000	100.5	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Nickel	0.1031	0.1000	103.1	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Selenium	0.1007	0.1000	100.7	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Silver	0.0963	0.1000	96.3	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Thallium	0.1006	0.1000	100.6	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen
	Zinc	0.1052	0.1000	105.2	90.0 - 110.0	MS	8/31/2010	01:26	M00830A, gen

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CRDL STANDARD FOR AA & ICP

Client: TETRA TECH **SDG No.:** C0H190588

ICPMS Standard Source: HIPUR

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
CRDL1			**CRI MET4062-10**						
	Antimony	0.00207	0.00200	103.5	50 - 150	MS	8/30/2010	15:03	M00830A,
	Arsenic	0.00106	0.00100	106.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Barium	0.01004	0.01000	100.4	50 - 150	MS	8/30/2010	15:03	M00830A,
	Beryllium	0.00103	0.00100	103.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Cadmium	0.00111	0.00100	111.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Chromium	0.00196	0.00200	98.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Copper	0.00151	0.00200	75.5	50 - 150	MS	8/30/2010	15:03	M00830A,
	Lead	0.00099	0.00100	99.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Nickel	0.00102	0.00100	102.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Selenium	0.00482	0.00500	96.4	50 - 150	MS	8/30/2010	15:03	M00830A,
	Silver	0.00096	0.00100	96.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Thallium	0.00106	0.00100	106.0	50 - 150	MS	8/30/2010	15:03	M00830A,
	Zinc	0.00604	0.00500	120.8	50 - 150	MS	8/30/2010	15:03	M00830A,

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
ICB1			ICB1							
	Antimony	0.00001	+/-0.00200	U	0.00003	0.00200	MS	8/30/2010	14:59	M00830A, ge
	Arsenic	0.00005	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Barium	-0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	14:59	M00830A, ge
	Beryllium	-0.00001	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Cadmium	0.00005	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Chromium	-0.00004	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	14:59	M00830A, ge
	Copper	-0.00095	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	14:59	M00830A, ge
	Lead	-0.00004	+/-0.00100	U	0.00004	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Selenium	0.00030	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	14:59	M00830A, ge
	Silver	-0.00007	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Thallium	0.00000	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	14:59	M00830A, ge
	Zinc	-0.00056	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	14:59	M00830A, ge
CCB1			CCB1							
	Antimony	0.00024	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	15:26	M00830A, ge
	Arsenic	0.00004	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Barium	-0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	15:26	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	15:26	M00830A, ge
X	Cadmium	0.00007	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Chromium	-0.00003	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	15:26	M00830A, ge
	Copper	-0.00105	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	15:26	M00830A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Selenium	0.00029	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	15:26	M00830A, ge
	Silver	-0.00011	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	15:26	M00830A, ge
	Zinc	-0.00052	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	15:26	M00830A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.00028	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	16:27	M00830A, ge
	Arsenic	-0.00014	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Barium	-0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	16:27	M00830A, ge
	Beryllium	-0.00001	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Cadmium	0.00007	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Chromium	-0.00004	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	16:27	M00830A, ge
X	Copper	-0.00125	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	16:27	M00830A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Nickel	-0.00004	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Selenium	-0.00047	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	16:27	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Thallium	0.00000	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	16:27	M00830A, ge
	Zinc	-0.00055	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	16:27	M00830A, ge
CCB3			CCB3							
	Antimony	0.00029	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	17:24	M00830A, ge
	Arsenic	-0.00007	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Barium	-0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	17:24	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Cadmium	-0.00001	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	17:24	M00830A, ge
X	Chromium	-0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	17:24	M00830A, ge
	Copper	-0.00131	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	17:24	M00830A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Selenium	-0.00016	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	17:24	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	17:24	M00830A, ge
	Zinc	-0.00047	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	17:24	M00830A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB4			CCB4							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	18:28	M00830A, ge
	Arsenic	-0.00010	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Barium	0.00002	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	18:28	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	18:28	M00830A, ge
X	Cadmium	-0.00001	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Chromium	0.00004	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	18:28	M00830A, ge
	Copper	-0.00132	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	18:28	M00830A, ge
	Lead	-0.00004	+/-0.00100	U	0.00004	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Selenium	-0.00043	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	18:28	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Thallium	0.00005	+/-0.00100	J	0.00002	0.00100	MS	8/30/2010	18:28	M00830A, ge
	Zinc	-0.00046	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	18:28	M00830A, ge
CCB5			CCB5							
	Antimony	0.00029	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	19:28	M00830A, ge
	Arsenic	-0.00002	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Barium	0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	19:28	M00830A, ge
	Beryllium	0.00002	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Cadmium	0.00003	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Chromium	-0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	19:28	M00830A, ge
	Copper	-0.00135	+/-0.00200	X J	0.00033	0.00200	MS	8/30/2010	19:28	M00830A, ge
	Lead	-0.00004	+/-0.00100	X J	0.00004	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Selenium	0.00014	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	19:28	M00830A, ge
	Silver	-0.00012	+/-0.00100	X J	0.00004	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	19:28	M00830A, ge
	Zinc	-0.00041	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	19:28	M00830A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB6			CCB6							
	Antimony	0.00029	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	20:35	M00830A, ge
	Arsenic	0.00006	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Barium	0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	20:35	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Chromium	0.00000	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	20:35	M00830A, ge
	Copper	-0.00136	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	20:35	M00830A, ge
	Lead	-0.00004	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Selenium	0.00007	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	20:35	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	20:35	M00830A, ge
	Zinc	-0.00039	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	20:35	M00830A, ge
CCB7			CCB7							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	21:35	M00830A, ge
	Arsenic	0.00001	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Barium	0.00002	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	21:35	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Chromium	0.00000	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	21:35	M00830A, ge
	Copper	-0.00136	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	21:35	M00830A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Selenium	0.00021	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	21:35	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Thallium	0.00002	+/-0.00100	J	0.00002	0.00100	MS	8/30/2010	21:35	M00830A, ge
	Zinc	-0.00043	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	21:35	M00830A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB8			CCB8							
	Antimony	0.00022	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	22:32	M00830A, ge
	Arsenic	0.00003	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Barium	0.00002	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	22:32	M00830A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Cadmium	0.00001	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Chromium	0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	22:32	M00830A, ge
	Copper	-0.00135	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	22:32	M00830A, ge
	Lead	0.00000	+/-0.00100	U	0.00004	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Selenium	0.00005	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	22:32	M00830A, ge
	Silver	-0.00012	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Thallium	0.00002	+/-0.00100	U	0.00002	0.00100	MS	8/30/2010	22:32	M00830A, ge
	Zinc	-0.00038	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	22:32	M00830A, ge
CCB9			CCB9							
	Antimony	0.00029	+/-0.00200	J	0.00003	0.00200	MS	8/30/2010	23:36	M00830A, ge
	Arsenic	0.00008	+/-0.00100	U	0.00018	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Barium	0.00001	+/-0.01000	U	0.00011	0.01000	MS	8/30/2010	23:36	M00830A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Cadmium	-0.00001	+/-0.00100	U	0.00007	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Chromium	0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/30/2010	23:36	M00830A, ge
	Copper	-0.00139	+/-0.00200	J	0.00033	0.00200	MS	8/30/2010	23:36	M00830A, ge
	Lead	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Nickel	-0.00001	+/-0.00100	U	0.00011	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Selenium	0.00029	+/-0.00500	U	0.00050	0.00500	MS	8/30/2010	23:36	M00830A, ge
	Silver	-0.00011	+/-0.00100	J	0.00004	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Thallium	0.00003	+/-0.00100	J	0.00002	0.00100	MS	8/30/2010	23:36	M00830A, ge
	Zinc	-0.00039	+/-0.00500	U	0.00065	0.00500	MS	8/30/2010	23:36	M00830A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H190588

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB10			**CCB10**							
	Antimony	0.00022	+/-0.00200	J	0.00003	0.00200	MS	8/31/2010	00:33	M00830A, ge
	Arsenic	0.00004	+/-0.00100	U	0.00018	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Barium	0.00003	+/-0.01000	U	0.00011	0.01000	MS	8/31/2010	00:33	M00830A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Cadmium	0.00003	+/-0.00100	U	0.00007	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Chromium	0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/31/2010	00:33	M00830A, ge
	Copper	-0.00138	+/-0.00200	J	0.00033	0.00200	MS	8/31/2010	00:33	M00830A, ge
	Lead	0.00000	+/-0.00100	U	0.00004	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Selenium	-0.00002	+/-0.00500	U	0.00050	0.00500	MS	8/31/2010	00:33	M00830A, ge
	Silver	-0.00011	+/-0.00100	J	0.00004	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Thallium	0.00002	+/-0.00100	J	0.00002	0.00100	MS	8/31/2010	00:33	M00830A, ge
	Zinc	-0.00042	+/-0.00500	U	0.00065	0.00500	MS	8/31/2010	00:33	M00830A, ge
CCB11			**CCB11**							
	Antimony	0.00028	+/-0.00200	J	0.00003	0.00200	MS	8/31/2010	01:33	M00830A, ge
	Arsenic	0.00001	+/-0.00100	U	0.00018	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Barium	0.00002	+/-0.01000	U	0.00011	0.01000	MS	8/31/2010	01:33	M00830A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Chromium	0.00002	+/-0.00200	U	0.00006	0.00200	MS	8/31/2010	01:33	M00830A, ge
	Copper	-0.00140	+/-0.00200	J	0.00033	0.00200	MS	8/31/2010	01:33	M00830A, ge
	Lead	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Selenium	0.00013	+/-0.00500	U	0.00050	0.00500	MS	8/31/2010	01:33	M00830A, ge
	Silver	-0.00011	+/-0.00100	J	0.00004	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Thallium	0.00003	+/-0.00100	J	0.00002	0.00100	MS	8/31/2010	01:33	M00830A, ge
	Zinc	-0.00042	+/-0.00500	U	0.00065	0.00500	MS	8/31/2010	01:33	M00830A, ge

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH **SDG No.:** C0H190588

ICS Source: EPA **Instrument ID:** ICPMS

Sample ID Analyte	WL/Mass	Result mg/L	Qual	True Value mg/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4063-10									
Antimony	121Sb	0.00042				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Arsenic	75As	0.00049				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Barium	137Ba	0.00038				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Beryllium	9Be	0.00017				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Cadmium	111Cd	0.00077				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Chromium	52Cr	0.00004				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Copper	65Cu	0.00256				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Lead	208Pb	0.00038				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Nickel	60Ni	0.00108				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Selenium	82Se	0.00057				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Silver	107Ag	0.00021				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Thallium	205Tl	0.00029				0.0 - 0.0	8/30/2010	15:07	M00830A, g
Zinc	66Zn	0.00523				0.0 - 0.0	8/30/2010	15:07	M00830A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02310		0.02000	115.5	80 - 120%	8/30/2010	15:12	M00830A, g
Arsenic	75As	0.02146		0.02000	107.3	80 - 120%	8/30/2010	15:12	M00830A, g
Barium	137Ba	0.02199		0.02000	110.0	80 - 120%	8/30/2010	15:12	M00830A, g
Beryllium	9Be	0.02142		0.02000	107.1	80 - 120%	8/30/2010	15:12	M00830A, g
Cadmium	111Cd	0.02300		0.02000	115.0	80 - 120%	8/30/2010	15:12	M00830A, g
Chromium	52Cr	0.01991		0.02000	99.6	80 - 120%	8/30/2010	15:12	M00830A, g
Copper	65Cu	0.02278		0.02000	113.9	80 - 120%	8/30/2010	15:12	M00830A, g
Lead	208Pb	0.02206		0.02000	110.3	80 - 120%	8/30/2010	15:12	M00830A, g
Nickel	60Ni	0.02138		0.02000	106.9	80 - 120%	8/30/2010	15:12	M00830A, g
Selenium	82Se	0.05205		0.05000	104.1	80 - 120%	8/30/2010	15:12	M00830A, g
Silver	107Ag	0.02203		0.02000	110.2	80 - 120%	8/30/2010	15:12	M00830A, g
Thallium	205Tl	0.02191		0.02000	109.6	80 - 120%	8/30/2010	15:12	M00830A, g
Zinc	66Zn	0.02762		0.02500	110.5	80 - 120%	8/30/2010	15:12	M00830A, g

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H190588

Sample ID: L5VR7 **Serial Dilution ID:** SD-102-SSL **Client ID:** SD-102-SSL

Batch Number: 0242192 **Prep Date:** 8/30/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 28.1 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	0.83393		8/30/2010 22:53	5	0.71657	J	8/30/2010 22:57	14.1	E	10.00 %
Arsenic	1	10.19737		8/30/2010 22:53	5	9.79730		8/30/2010 22:57	3.9		10.00 %
Beryllium	1	1.75160		8/30/2010 22:53	5	1.56472		8/30/2010 22:57	10.7	E	10.00 %
Cadmium	1	4.59282		8/30/2010 22:53	5	4.18563		8/30/2010 22:57	8.9		10.00 %
Chromium	1	136.14870		8/30/2010 22:53	5	127.04480		8/30/2010 22:57	6.7		10.00 %
Copper	1	150.88900		8/30/2010 22:53	5	145.09250		8/30/2010 22:57	3.8		10.00 %
Lead	1	122.67070		8/30/2010 22:53	5	115.13160		8/30/2010 22:57	6.1		10.00 %
Nickel	1	37.25106		8/30/2010 22:53	5	35.34850		8/30/2010 22:57	5.1		10.00 %
Selenium	1	1.75676		8/30/2010 22:53	5	1.75498	J	8/30/2010 22:57	0.1		10.00 %
Silver	1	1.72422		8/30/2010 22:53	5	1.48560		8/30/2010 22:57	13.8	E	10.00 %
Thallium	1	0.26387		8/30/2010 22:53	5	0.25427	J	8/30/2010 22:57	3.6		10.00 %
Zinc	1	336.94880		8/30/2010 22:53	5	324.85780		8/30/2010 22:57	3.6		10.00 %

Test America Pittsburgh

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H190588

Sample ID: L5VQ7 **Serial Dilution ID:** SD-92-SSL **Client ID:** SD-92-SSL

Batch Number: 0242185 **Prep Date:** 8/30/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 53.5 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	0.13321	J	8/30/2010 20:16	5	0.12862	J	8/30/2010 20:20	3.4		10.00 %
Arsenic	1	3.93826		8/30/2010 20:16	5	3.62067		8/30/2010 20:20	8.1		10.00 %
Beryllium	1	1.47053		8/30/2010 20:16	5	1.34191		8/30/2010 20:20	8.7		10.00 %
Cadmium	1	0.21216		8/30/2010 20:16	5	0.18522	J	8/30/2010 20:20	12.7		10.00 %
Chromium	1	15.00468		8/30/2010 20:16	5	13.89617		8/30/2010 20:20	7.4		10.00 %
Copper	1	12.78765		8/30/2010 20:16	5	11.73527		8/30/2010 20:20	8.2		10.00 %
Lead	1	5.14032		8/30/2010 20:16	5	4.97661		8/30/2010 20:20	3.2		10.00 %
Nickel	1	12.49766		8/30/2010 20:16	5	11.97381		8/30/2010 20:20	4.2		10.00 %
Selenium	1	0.67858		8/30/2010 20:16	5	0.66043	J	8/30/2010 20:20	2.7		10.00 %
Silver	1	0.03255	J	8/30/2010 20:16	5	0.01824	U	8/30/2010 20:20	100.0		10.00 %
Thallium	1	0.06623	J	8/30/2010 20:16	5	0.06829	J	8/30/2010 20:20	3.1		10.00 %
Zinc	1	40.36483		8/30/2010 20:16	5	37.44154		8/30/2010 20:20	7.2		10.00 %

SEM

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST

Units: ug/L

Chart Number: T00831A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: MET4711-09

Element	WL/ Mass	True Conc	ICV1-1 8/31/2010 2:58 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	250.0	249.91	**100.0**								
Chromium	267.716	1000.0	1016.83	**101.7**								
Copper	324.753	1000.0	1035.08	**103.5**								
Lead	220.353	250.0	254.91	**102.0**								
Nickel	231.604	1000.0	987.71	**98.8**								
Silver	328.068	500.0	507.06	**101.4**								
Zinc	213.856	1000.0	1024.04	**102.4**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET5054-09

Element	WL/ Mass	True Conc	CCV1-1 8/31/2010 3:25 PM Found	% Rec	CCV1-2 8/31/2010 4:31 PM Found	% Rec	CCV1-3 8/31/2010 5:26 PM Found	% Rec	CCV1-4 8/31/2010 6:10 PM Found	% Rec	CCV1-5 8/31/2010 7:15 PM Found	% Rec
Cadmium	226.502	500.0	482.49	**96.5**	483.10	**96.6**	480.28	**96.1**	475.63	**95.1**	481.60	**96.3**
Chromium	267.716	2000.0	1967.59	**98.4**	1973.12	**98.7**	1965.82	**98.3**	1947.61	**97.4**	1978.18	**98.9**
Copper	324.753	2000.0	2028.26	**101.4**	2038.10	**101.9**	2069.36	**103.5**	2039.13	**102.0**	2045.40	**102.3**
Lead	220.353	500.0	486.07	**97.2**	486.35	**97.3**	485.55	**97.1**	480.62	**96.1**	489.51	**97.9**
Nickel	231.604	2000.0	1948.18	**97.4**	1955.00	**97.8**	1945.37	**97.3**	1924.79	**96.2**	1942.68	**97.1**
Silver	328.068	1000.0	1014.87	**101.5**	1018.33	**101.8**	1020.81	**102.1**	1010.36	**101.0**	1000.26	**100.0**
Zinc	213.856	2000.0	2011.48	**100.6**	2007.61	**100.4**	1999.58	**100.0**	1985.14	**99.3**	2013.13	**100.7**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00831A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: MET5054-09

Element	WL/ Mass	True Conc	CCV1-6 8/31/2010 8:05 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	500.0	486.65	**97.3**								
Chromium	267.716	2000.0	2007.31	**100.4**								
Copper	324.753	2000.0	2047.83	**102.4**								
Lead	220.353	500.0	497.77	**99.6**								
Nickel	231.604	2000.0	1963.40	**98.2**								
Silver	328.068	1000.0	991.77	**99.2**								
Zinc	213.856	2000.0	2049.41	**102.5**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4939-09

Element	WL/ Mass	True Conc	CRA/RLV 8/31/2010 3:09 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	5.0	5.05	**101.0**								
Chromium	267.716	5.0	5.90	**118.0**								
Copper	324.753	25.0	24.69	**98.8**								
Lead	220.353	3.0	3.28	**109.3**								
Nickel	231.604	40.0	41.27	**103.2**								
Silver	328.068	5.0	5.17	**103.4**								
Zinc	213.856	20.0	20.78	**103.9**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 8/31/2010 3:03 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	0.2	U								
Chromium	267.716	5	0.4	U								
Copper	324.753	25	2.2	U								
Lead	220.353	3	2.0	U								
Nickel	231.604	40	1.2	U								
Silver	328.068	5	0.6	U								
Zinc	213.856	20	7.4	U								

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 8/31/2010 3:31 PM Found	Q	CCB2 8/31/2010 4:37 PM Found	Q	CCB3 8/31/2010 5:31 PM Found	Q	CCB4 8/31/2010 6:15 PM Found	Q	CCB5 8/31/2010 7:21 PM Found	Q
Cadmium	226.502	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	B
Chromium	267.716	5	0.4	U	0.4	U	**-0.7**	**B**	**-0.5**	**B**	**-0.5**	**B**
Copper	324.753	25	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Lead	220.353	3	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Nickel	231.604	40	1.2	U	1.2	U	1.2	U	1.2	U	3.9	B
Silver	328.068	5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Zinc	213.856	20	7.4	U	7.4	U	7.4	U	7.4	U	7.4	U

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 8/31/2010 8:10 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	0.2	U								
Chromium	267.716	5	**-0.5**	**B**								
Copper	324.753	25	2.2	U								
Lead	220.353	3	2.0	U								
Nickel	231.604	40	1.2	U								
Silver	328.068	5	0.6	U								
Zinc	213.856	20	7.4	U								

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET4850-09

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 8/31/2010 3:14 PM Found	Found	Found	Found	Found
Cadmium	226.502	5		1				
Chromium	267.716	5		0				
Copper	324.753	25		0				
Lead	220.353	3		3				
Nickel	231.604	40		1				
Silver	328.068	5		0				
Zinc	213.856	20		7				

U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00831A.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4851-09

Element	WL/ Mass	True Conc	ICSAB 8/31/2010 3:20 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	1000	922.4	**92.2**								
Chromium	267.716	500	483.0	**96.6**								
Copper	324.753	500	533.6	**106.7**								
Lead	220.353	1000	948.1	**94.8**								
Nickel	231.604	1000	920.2	**92.0**								
Silver	328.068	1000	1069.3	**106.9**								
Zinc	213.856	1000	1011.9	**101.2**								

SEM

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00831A	METTRACE	08/31/10	14:37		X	IR
2	STD2	T00831A	METTRACE	08/31/10	14:42		X	IR
3	STD3	T00831A	METTRACE	08/31/10	14:48		X	IR
4	STD4	T00831A	METTRACE	08/31/10	14:53		X	IR
5	ICV1-1 MET 4165-10	T00831A	METTRACE	08/31/10	14:58	ACC	S	CONC
6	ICB	T00831A	METTRACE	08/31/10	15:03	ACC	S	CONC
7	CRA/RLV MET 4384-10	T00831A	METTRACE	08/31/10	15:09	ACC	S	CONC
8	ICSA MET 3683-10	T00831A	METTRACE	08/31/10	15:14	ACC	Q	CONC
9	ICSAB MET 4004-10	T00831A	METTRACE	08/31/10	15:20	ACC	Q	CONC
10	CCV1-1 MET 4386-10	T00831A	METTRACE	08/31/10	15:25	ACC	S	CONC
11	CCB1	T00831A	METTRACE	08/31/10	15:31	ACC	S	CONC
12	L56T0S/2 Mn	T00831A	METTRACE	08/31/10	15:36	ACC	S	CONC
13	L565X/2 Mn	T00831A	METTRACE	08/31/10	15:42	ACC	S	CONC
14	L56NN/100 Fe	T00831A	METTRACE	08/31/10	15:47	ACC	S	CONC
15	L54MVT	T00831A	METTRACE	08/31/10	15:53	ACC	S	CONC
16	L54MWT	T00831A	METTRACE	08/31/10	15:58	ACC	S	CONC
17	L54PDT	T00831A	METTRACE	08/31/10	16:04	ACC	S	CONC
18	L547MT	T00831A	METTRACE	08/31/10	16:09	ACC	S	CONC
19	L548JT	T00831A	METTRACE	08/31/10	16:15	ACC	S	CONC
20	L548PT	T00831A	METTRACE	08/31/10	16:20	ACC	S	CONC
21	L548TT	T00831A	METTRACE	08/31/10	16:26	ACC	S	CONC
22	CCV1-2	T00831A	METTRACE	08/31/10	16:31	ACC	S	CONC
23	CCB2	T00831A	METTRACE	08/31/10	16:37	ACC	S	CONC
24	L5480T	T00831A	METTRACE	08/31/10	16:42	ACC	S	CONC
25	L59T2BT	T00831A	METTRACE	08/31/10	16:48	ACC	S	CONC
26	L59T2CT	T00831A	METTRACE	08/31/10	16:53	ACC	S	CONC
27	L59T2LT	T00831A	METTRACE	08/31/10	16:59	ACC	S	CONC
28	L547NT/10 prep dil.	T00831A	METTRACE	08/31/10	17:04	ACC	S	CONC
29	L547NP50T prep dilx5	T00831A	METTRACE	08/31/10	17:09	ACC	S	CONC
30	L548ET/10 prep dil.	T00831A	METTRACE	08/31/10	17:15	ACC	S	CONC
31	L548NT/10 prep dil.	T00831A	METTRACE	08/31/10	17:20	ACC	S	CONC
32	CCV1-3	T00831A	METTRACE	08/31/10	17:26	ACC	S	CONC
33	CCB3	T00831A	METTRACE	08/31/10	17:31	ACC	S	CONC
34	L5483T/100 Cr	T00831A	METTRACE	08/31/10	17:37	ACC	S	CONC
35	L5356T/5 Ba	T00831A	METTRACE	08/31/10	17:53	ACC	S	CONC
36	L6356P25T Ba	T00831A	METTRACE	08/31/10	17:59	ACC	S	CONC
37	L548NT/50 prepdilx5	T00831A	METTRACE	08/31/10	18:04	ACC	S	CONC
38	CCV1-4	T00831A	METTRACE	08/31/10	18:10	ACC	S	CONC
39	CCB4	T00831A	METTRACE	08/31/10	18:15	ACC	S	CONC
40	L6A57B	T00831A	METTRACE	08/31/10	18:21	ACC	S	CONC
41	L6AF7C	T00831A	METTRACE	08/31/10	18:26	ACC	S	CONC
42	L6A57L	T00831A	METTRACE	08/31/10	18:32	ACC	S	CONC
43	L5245	T00831A	METTRACE	08/31/10	18:37	ACC	S	CONC
44	L5245P5	T00831A	METTRACE	08/31/10	18:42	ACC	S	CONC
45	L54QD	T00831A	METTRACE	08/31/10	18:48	ACC	S	CONC
46	L5QK0	T00831A	METTRACE	08/31/10	18:53	ACC	S	CONC
47	L5TQ3	T00831A	METTRACE	08/31/10	18:59	ACC	S	CONC
48	L5TTT	T00831A	METTRACE	08/31/10	19:04	ACC	S	CONC
49	L5VR0	T00831A	METTRACE	08/31/10	19:10	ACC	S	CONC
50	CCV1-5	T00831A	METTRACE	08/31/10	19:15	ACC	S	CONC
51	CCB5	T00831A	METTRACE	08/31/10	19:21	ACC	S	CONC
52	L5VR2	T00831A	METTRACE	08/31/10	19:26	ACC	S	CONC
53	L5VR3	T00831A	METTRACE	08/31/10	19:32	ACC	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	L5VR4	T00831A	METTRACE	08/31/10	19:37	ACC	S	CONC
55	L5VR6	T00831A	METTRACE	08/31/10	19:43	ACC	S	CONC
56	L5VRR	T00831A	METTRACE	08/31/10	19:48	ACC	S	CONC
57	L5VRT	T00831A	METTRACE	08/31/10	19:54	ACC	S	CONC
58	L5VRX	T00831A	METTRACE	08/31/10	19:59	ACC	S	CONC
59	CCV1-6	T00831A	METTRACE	08/31/10	20:05	ACC	S	CONC
60	CCB6	T00831A	METTRACE	08/31/10	20:10	ACC	S	CONC
61	L59T7B	T00831A	METTRACE	08/31/10	20:16	ACC	S	CONC
62	L59T7C	T00831A	METTRACE	08/31/10	20:21	ACC	S	CONC
63	L59T7L	T00831A	METTRACE	08/31/10	20:27	ACC	S	CONC
64	L5JL0	T00831A	METTRACE	08/31/10	20:32	ACC	S	CONC
65	L5JL0P5	T00831A	METTRACE	08/31/10	20:38	ACC	S	CONC
66	L6A6XBT	T00831A	METTRACE	08/31/10	20:43	ACC	S	CONC
67	L6A6XCT	T00831A	METTRACE	08/31/10	20:49	ACC	S	CONC
68	L6A6XLT	T00831A	METTRACE	08/31/10	20:54	ACC	S	CONC
69	L5646T	T00831A	METTRACE	08/31/10	21:00	ACC	S	CONC
70	L5646P5T	T00831A	METTRACE	08/31/10	21:05	ACC	S	CONC
71	CCV1-7	T00831A	METTRACE	08/31/10	21:11	ACC	S	CONC
72	CCB7	T00831A	METTRACE	08/31/10	21:16	ACC	S	CONC
73	L566AT	T00831A	METTRACE	08/31/10	21:22	ACC	S	CONC
74	L566FT	T00831A	METTRACE	08/31/10	21:27	ACC	S	CONC
75	L566TT	T00831A	METTRACE	08/31/10	21:33	ACC	S	CONC
76	L566XT	T00831A	METTRACE	08/31/10	21:38	ACC	S	CONC
77	L6A4HB	T00831A	METTRACE	08/31/10	21:44	ACC	S	CONC
78	L6A4HC	T00831A	METTRACE	08/31/10	21:49	ACC	S	CONC
79	L5827	T00831A	METTRACE	08/31/10	21:55	ACC	S	CONC
80	L5827P5	T00831A	METTRACE	08/31/10	22:00	ACC	S	CONC
81	L5827S	T00831A	METTRACE	08/31/10	22:05	ACC	S	CONC
82	L5827D	T00831A	METTRACE	08/31/10	22:11	ACC	S	CONC
83	CCV1-8	T00831A	METTRACE	08/31/10	22:16	ACC	S	CONC
84	CCB8	T00831A	METTRACE	08/31/10	22:22	ACC	S	CONC
85	L55NJ	T00831A	METTRACE	08/31/10	22:27	ACC	S	CONC
86	L55NK	T00831A	METTRACE	08/31/10	22:33	ACC	S	CONC
87	L55NL	T00831A	METTRACE	08/31/10	22:38	ACC	S	CONC
88	L550X	T00831A	METTRACE	08/31/10	22:44	ACC	S	CONC
89	L565A	T00831A	METTRACE	08/31/10	22:49	ACC	S	CONC
90	L565F	T00831A	METTRACE	08/31/10	22:55	ACC	S	CONC
91	L565J	T00831A	METTRACE	08/31/10	23:00	ACC	S	CONC
92	L57X0	T00831A	METTRACE	08/31/10	23:06	ACC	S	CONC
93	L57X2	T00831A	METTRACE	08/31/10	23:11	ACC	S	CONC
94	L57X3	T00831A	METTRACE	08/31/10	23:17	ACC	S	CONC
95	CCV1-9	T00831A	METTRACE	08/31/10	23:22	ACC	S	CONC
96	CCB9	T00831A	METTRACE	08/31/10	23:28	ACC	S	CONC
97	L5821	T00831A	METTRACE	08/31/10	23:33	ACC	S	CONC
98	L5824	T00831A	METTRACE	08/31/10	23:39	ACC	S	CONC
99	L5826	T00831A	METTRACE	08/31/10	23:44	ACC	S	CONC
100	L5829	T00831A	METTRACE	08/31/10	23:50	ACC	S	CONC
101	L583A	T00831A	METTRACE	08/31/10	23:55	ACC	S	CONC
102	L583C	T00831A	METTRACE	09/01/10	00:01	ACC	S	CONC
103	L583E	T00831A	METTRACE	09/01/10	00:06	ACC	S	CONC
104	L583F	T00831A	METTRACE	09/01/10	00:12	ACC	S	CONC
105	L6A4MBT	T00831A	METTRACE	09/01/10	00:17	ACC	S	CONC
106	L6A4MCT	T00831A	METTRACE	09/01/10	00:23	ACC	S	CONC
107	CCV1-10	T00831A	METTRACE	09/01/10	00:28	ACC	S	CONC

SEM zn

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00901B	METTRACE	09/01/10	15:04		X	IR
2	STD2	T00901B	METTRACE	09/01/10	15:09		X	IR
3	STD3	T00901B	METTRACE	09/01/10	15:15		X	IR
4	STD4	T00901B	METTRACE	09/01/10	15:20		X	IR
5	ICV1-1 MET3816-10	T00901B	METTRACE	09/01/10	15:26	WTR	S	CONC
6	ICB1	T00901B	METTRACE	09/01/10	15:41	WTR	S	CONC
7	CRA\RLV MET4384-10	T00901B	METTRACE	09/01/10	15:47	WTR	S	CONC
8	ICSA MET3683-10	T00901B	METTRACE	09/01/10	15:56	WTR	Q	CONC
9	ICSAB MET4004-10	T00901B	METTRACE	09/01/10	16:02	WTR	Q	CONC
10	CCV1-1 MET4386-10	T00901B	METTRACE	09/01/10	16:07	WTR	S	CONC
11	CCB1	T00901B	METTRACE	09/01/10	16:13	WTR	S	CONC
12	L6A4DB	T00901B	METTRACE	09/01/10	16:18	WTR	S	CONC
13	L6A4DC	T00901B	METTRACE	09/01/10	16:29	WTR	S	CONC
14	L6ALK/500 PB	T00901B	METTRACE	09/01/10	16:35	WTR	S	CONC
15	L6ALKP2500	T00901B	METTRACE	09/01/10	16:40	WTR	S	CONC
16	L6ALKS/500 PB	T00901B	METTRACE	09/01/10	16:46	WTR	S	CONC
17	L6ALKD/500 PB	T00901B	METTRACE	09/01/10	16:51	WTR	S	CONC
18	L6ALR	T00901B	METTRACE	09/01/10	16:57	WTR	S	CONC
19	L6ALV/500 PB	T00901B	METTRACE	09/01/10	17:04	WTR	S	CONC
20	L6DNMBF	T00901B	METTRACE	09/01/10	17:10	WTR	S	CONC
21	CRA-2	T00901B	METTRACE	09/01/10	17:15	WTR	S	CONC
22	CCV1-2	T00901B	METTRACE	09/01/10	17:21	WTR	S	CONC
23	CCB2	T00901B	METTRACE	09/01/10	17:33	WTR	S	CONC
24	L6DNMCF	T00901B	METTRACE	09/01/10	17:39	WTR	S	CONC
25	L55H6F	T00901B	METTRACE	09/01/10	17:44	WTR	S	CONC
26	L55H6P5F	T00901B	METTRACE	09/01/10	17:50	WTR	S	CONC
27	L55H6SF	T00901B	METTRACE	09/01/10	17:55	WTR	S	CONC
28	L55H6DF	T00901B	METTRACE	09/01/10	18:01	WTR	S	CONC
29	L6DNVB	T00901B	METTRACE	09/01/10	18:06	WTR	S	CONC
30	L6DNVC	T00901B	METTRACE	09/01/10	18:12	WTR	S	CONC
31	L5MVA	T00901B	METTRACE	09/01/10	18:17	WTR	S	CONC
32	L5MVAP5	T00901B	METTRACE	09/01/10	18:23	WTR	S	CONC
33	L5MVAS	T00901B	METTRACE	09/01/10	18:28	WTR	S	CONC
34	CCV1-3	T00901B	METTRACE	09/01/10	18:34	WTR	S	CONC
35	CCB3	T00901B	METTRACE	09/01/10	18:39	WTR	S	CONC
36	L5MVAD	T00901B	METTRACE	09/01/10	18:45	WTR	S	CONC
37	L5MVC	T00901B	METTRACE	09/01/10	18:50	WTR	S	CONC
38	L5MVD	T00901B	METTRACE	09/01/10	18:56	WTR	S	CONC
39	L5MVE	T00901B	METTRACE	09/01/10	19:01	WTR	S	CONC
40	L5MVF	T00901B	METTRACE	09/01/10	19:07	WTR	S	CONC
41	L5MVG	T00901B	METTRACE	09/01/10	19:12	WTR	S	CONC
42	L5MVH	T00901B	METTRACE	09/01/10	19:18	WTR	S	CONC
43	L5MVJ	T00901B	METTRACE	09/01/10	19:23	WTR	S	CONC
44	L5MVK	T00901B	METTRACE	09/01/10	19:28	WTR	S	CONC
45	L543K	T00901B	METTRACE	09/01/10	19:34	WTR	S	CONC
46	CCV1-4	T00901B	METTRACE	09/01/10	19:39	WTR	S	CONC
47	CCB4	T00901B	METTRACE	09/01/10	19:45	WTR	S	CONC
48	L543N	T00901B	METTRACE	09/01/10	19:50	WTR	S	CONC
49	L543Q	T00901B	METTRACE	09/01/10	19:56	WTR	S	CONC
50	L543R	T00901B	METTRACE	09/01/10	20:01	WTR	S	CONC
51	L543T	T00901B	METTRACE	09/01/10	20:07	WTR	S	CONC
52	L543V	T00901B	METTRACE	09/01/10	20:12	WTR	S	CONC
53	L543W	T00901B	METTRACE	09/01/10	20:18	WTR	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	L5431	T00901B	METTRACE	09/01/10	20:23	WTR	S	CONC
55	L58EK	T00901B	METTRACE	09/01/10	20:29	WTR	S	CONC
56	L6AFX	T00901B	METTRACE	09/01/10	20:34	WTR	S	CONC
57	L6DN0C	T00901B	METTRACE	09/01/10	20:40	WTR	S	CONC
58	CCV1-5	T00901B	METTRACE	09/01/10	20:45	WTR	S	CONC
59	CCB5	T00901B	METTRACE	09/01/10	20:51	WTR	S	CONC
60	L6DN0B	T00901B	METTRACE	09/01/10	20:56	WTR	S	CONC
61	L5K9AD	T00901B	METTRACE	09/01/10	21:02	WTR	S	CONC
62	L5K9C	T00901B	METTRACE	09/01/10	21:07	WTR	S	CONC
63	L5K9D	T00901B	METTRACE	09/01/10	21:13	WTR	S	CONC
64	L5K9F	T00901B	METTRACE	09/01/10	21:18	WTR	S	CONC
65	L5K9G	T00901B	METTRACE	09/01/10	21:24	WTR	S	CONC
66	L50QL	T00901B	METTRACE	09/01/10	21:29	WTR	S	CONC
67	L50QLP5	T00901B	METTRACE	09/01/10	21:35	WTR	S	CONC
68	L50QLS	T00901B	METTRACE	09/01/10	21:40	WTR	S	CONC
69	L50QLD	T00901B	METTRACE	09/01/10	21:46	WTR	S	CONC
70	CCV1-6	T00901B	METTRACE	09/01/10	21:51	WTR	S	CONC
71	CCB6	T00901B	METTRACE	09/01/10	21:57	WTR	S	CONC
72	L50QR	T00901B	METTRACE	09/01/10	22:02	WTR	S	CONC
73	L6AE8BT	T00901B	METTRACE	09/01/10	22:08	WTR	S	CONC
74	L6DLHBT	T00901B	METTRACE	09/01/10	22:13	WTR	S	CONC
75	L6DLHCT	T00901B	METTRACE	09/01/10	22:19	WTR	S	CONC
76	L547PT	T00901B	METTRACE	09/01/10	22:24	WTR	S	CONC
77	L547QT	T00901B	METTRACE	09/01/10	22:30	WTR	S	CONC
78	L547RT	T00901B	METTRACE	09/01/10	22:35	WTR	S	CONC
79	L56KDT	T00901B	METTRACE	09/01/10	22:41	WTR	S	CONC
80	L56KVT	T00901B	METTRACE	09/01/10	22:46	WTR	S	CONC
81	L56KWT	T00901B	METTRACE	09/01/10	22:52	WTR	S	CONC
82	CCV1-7	T00901B	METTRACE	09/01/10	22:57	WTR	S	CONC
83	CCB7	T00901B	METTRACE	09/01/10	23:03	WTR	S	CONC
84	L56KXT	T00901B	METTRACE	09/01/10	23:08	WTR	S	CONC
85	L56K1T	T00901B	METTRACE	09/01/10	23:14	WTR	S	CONC
86	L57MDT	T00901B	METTRACE	09/01/10	23:19	WTR	S	CONC
87	L5787T/100	T00901B	METTRACE	09/01/10	23:24	WTR	S	CONC
88	L5790T/100	T00901B	METTRACE	09/01/10	23:30	WTR	S	CONC
89	L58CGT	T00901B	METTRACE	09/01/10	23:35	WTR	S	CONC
90	L59MVT	T00901B	METTRACE	09/01/10	23:41	WTR	S	CONC
91	L59MVP5T	T00901B	METTRACE	09/01/10	23:46	WTR	S	CONC
92	L59MVST	T00901B	METTRACE	09/01/10	23:52	WTR	S	CONC
93	L59MVDT	T00901B	METTRACE	09/01/10	23:57	WTR	S	CONC
94	CCV1-8	T00901B	METTRACE	09/02/10	00:03	WTR	S	CONC
95	CCB8	T00901B	METTRACE	09/02/10	00:08	WTR	S	CONC
96	L59MVST/10	T00901B	METTRACE	09/02/10	00:14	WTR	S	CONC
97	L59MVDT/10	T00901B	METTRACE	09/02/10	00:19	WTR	S	CONC
98	CCV1-9	T00901B	METTRACE	09/02/10	00:25	WTR	S	CONC
99	CCB9	T00901B	METTRACE	09/02/10	00:30	WTR	S	CONC
100	L5245/10 Zn	T00901B	METTRACE	09/02/10	00:36	WTR	S	CONC
101	L5245P50 Zn	T00901B	METTRACE	09/02/10	00:41	WTR	S	CONC
102	L5QK0/5 Pb	T00901B	METTRACE	09/02/10	00:47	WTR	S	CONC
103	L5TTT/10 Zn	T00901B	METTRACE	09/02/10	00:52	WTR	S	CONC
104	L5VRR/2 Zn	T00901B	METTRACE	09/02/10	00:58	WTR	S	CONC
105	L5VRT/5 Zn	T00901B	METTRACE	09/02/10	01:03	WTR	S	CONC
106	L5VRX/5 Zn	T00901B	METTRACE	09/02/10	01:09	WTR	S	CONC
107	L5Q70/5 Fe	T00901B	METTRACE	09/02/10	01:14	WTR	S	CONC

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET3816-10

Element	WL/ Mass	True Conc	ICV1-1 9/1/2010 3:26 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	1000.0	1021.88	**102.2**								

5.11.0 *Form 2A Equivalent*

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4386-10

Element	WL/ Mass	True Conc	CCV1-6 9/1/2010 9:51 PM		CCV1-7 9/1/2010 10:57 PM		CCV1-8 9/2/2010 12:03 AM		CCV1-9 9/2/2010 12:25 AM		CCV1-10 9/2/2010 1:31 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	2000.0	2097.84	**104.9**	2098.55	**104.9**	2111.74	**105.6**	2097.91	**104.9**	2169.75	**108.5**

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4384-10

Element	WL/ Mass	True Conc	CRA\RLV 9/1/2010 3:47 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	20.0	20.62	**103.1**								

5.11.0

Form 2B Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 9/1/2010 3:41 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Zinc	213.856	20	7.4	U								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 9/1/2010 9:57 PM X Found	Q	CCB7 9/1/2010 11:03 PM X Found	Q	CCB8 9/2/2010 12:08 AM X Found	Q	CCB9 9/2/2010 12:30 AM Found	Q	CCB10 9/2/2010 1:36 AM Found	Q
Zinc	213.856	20	7.4	U	7.4	U	7.4	U	7.4	U	7.4	U

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET3683-10

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 9/1/2010 3:56 PM Found	Found	Found	Found	Found
Zinc	213.856	20		7				

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 4 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00901B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4004-10

Element	WL/ Mass	True Conc	ICSAB 9/1/2010 4:02 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Zinc	213.856	1000	1020.1	**102.0**								

5.11.0

NC Percent recovery was not calculated
U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

William a Hoyle 8-25-10

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: ICV6-1 G00825A Seq: 8 07:57:12 25 Aug 10 HG

Hg 2.62 ppb 14954 MET4378-10

*** Sample ID: ICB1 G00825A Seq: 9 07:58:52 25 Aug 10 HG

Hg -.003 ppb 152

*** Sample ID: CRA/RLV G00825A Seq: 10 08:00:30 25 Aug 10 HG

Hg .184 ppb 1209 MET4379-10

*** Sample ID: CCV6-1 G00825A Seq: 11 08:02:16 25 Aug 10 HG

Hg 5.09 ppb 28946 MET4380-10

*** Sample ID: CCB1 G00825A Seq: 12 08:03:57 25 Aug 10 HG

Hg .001 ppb 174

*** Sample ID: L531WB G00825A Seq: 13 08:05:34 25 Aug 10 HG

Hg .009 ppb 220

*** Sample ID: L531WC G00825A Seq: 14 08:07:30 25 Aug 10 HG

Hg 2.51 ppb 14382 MET4381-10

*** Sample ID: L5VQ7 G00825A Seq: 15 08:09:17 25 Aug 10 HG

Hg .152 ppb 1028

*** Sample ID: L5VQ7S G00825A Seq: 16 08:10:55 25 Aug 10 HG SP. Rec. 107%10

Hg 1.22 ppb 7058

*** Sample ID: L5VQ7D G00825A Seq: 17 08:12:34 25 Aug 10 HG SP. Rec. 107%10

Hg 1.22 ppb 7056

*** Sample ID: L5VQ8 G00825A Seq: 18 08:14:12 25 Aug 10 HG

Hg .126 ppb 881

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L5VQ9 G00825A Seq: 19 08:15:58 25 Aug 10 HG

Hg .409 ppb 2481

*** Sample ID: L5VRD G00825A Seq: 20 08:17:37 25 Aug 10 HG

Hg .848 ppb 4959

*** Sample ID: L5VRE G00825A Seq: 21 08:19:13 25 Aug 10 HG

Hg 6.80 ppb 38615

*** Sample ID: L5VRG G00825A Seq: 22 08:20:52 25 Aug 10 HG

Hg 1.19 ppb 6877

*** Sample ID: CCV6-2 G00825A Seq: 23 08:22:33 25 Aug 10 HG

Hg 5.03 ppb 28598

*** Sample ID: CCB2 G00825A Seq: 24 08:24:21 25 Aug 10 HG

Hg -.018 ppb 64

*** Sample ID: L5VRH G00825A Seq: 25 08:26:17 25 Aug 10 HG

Hg 1.72 ppb 9869

*** Sample ID: L5VRJ G00825A Seq: 26 08:28:16 25 Aug 10 HG

Hg 2.52 ppb 14412

VOID

*** Sample ID: L5VRK G00825A Seq: 27 08:29:53 25 Aug 10 HG

Hg 10.3 ppb 58348

VOID OVER RANGE WILL RERUN IN RUN WAH 8-25-10

*** Sample ID: L5VRL G00825A Seq: 28 08:31:40 25 Aug 10 HG

Hg 1.98 ppb 11376

*** Sample ID: L5VRM G00825A Seq: 29 08:33:18 25 Aug 10 HG

Hg 2.40 ppb 13721

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L5VRP G00825A Seq: 30 08:34:56 25 Aug 10 HG

Hg .927 ppb 5406

*** Sample ID: L5VRR G00825A Seq: 31 08:36:43 25 Aug 10 HG

Hg 1.36 ppb 7851

*** Sample ID: L5VRT G00825A Seq: 32 08:38:24 25 Aug 10 HG

Hg 2.37 ppb 13538

*** Sample ID: L5VRX G00825A Seq: 33 08:40:01 25 Aug 10 HG

Hg 4.40 ppb 25031

*** Sample ID: L5VR0 G00825A Seq: 34 08:41:39 25 Aug 10 HG

Hg 1.21 ppb 7005

*** Sample ID: CCV6-3 G00825A Seq: 35 08:43:16 25 Aug 10 HG

Hg 5.12 ppb 29130

*** Sample ID: CCB3 G00825A Seq: 36 08:44:54 25 Aug 10 HG

Hg -.011 ppb 108

*** Sample ID: L5VR2 G00825A Seq: 37 08:46:31 25 Aug 10 HG

Hg 1.31 ppb 7565

*** Sample ID: L5VR3 G00825A Seq: 38 08:48:09 25 Aug 10 HG

Hg 2.47 ppb 14119

*** Sample ID: L5VR4 G00825A Seq: 39 08:49:46 25 Aug 10 HG

Hg 6.63 ppb 37621

*** Sample ID: L5VR6 G00825A Seq: 40 08:51:26 25 Aug 10 HG

Hg .380 ppb 2316

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L53KJ G00825A Seq: 63 09:30:38 25 Aug 10 HG

Hg .218 ppb 1398

*** Sample ID: L53KR G00825A Seq: 64 09:32:19 25 Aug 10 HG

Hg .244 ppb 1550

*** Sample ID: L53KT G00825A Seq: 65 09:34:18 25 Aug 10 HG

Hg .325 ppb 2005

*** Sample ID: L5KX9 G00825A Seq: 66 09:35:58 25 Aug 10 HG

Hg .061 ppb 514

*** Sample ID: L5K0C G00825A Seq: 67 09:37:35 25 Aug 10 HG

Hg .408 ppb 2477

*** Sample ID: CCV6-6 G00825A Seq: 68 09:39:14 25 Aug 10 HG

Hg 5.10 ppb 29026

*** Sample ID: CCB6 G00825A Seq: 69 09:40:54 25 Aug 10 HG

Hg -.022 ppb 44

*** Sample ID: L5VRK/2 G00825A Seq: 70 09:42:36 25 Aug 10 HG

Hg 5.33 ppb 30319

*** Sample ID: L51WF/2 G00825A Seq: 71 09:44:15 25 Aug 10 HG

Hg 7.15 ppb 40576

*** Sample ID: CCV6-7 G00825A Seq: 72 09:45:54 25 Aug 10 HG

Hg 5.01 ppb 28486

*** Sample ID: CCB7 G00825A Seq: 73 09:47:58 25 Aug 10 HG

Hg .001 ppb 176

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4378-10

Element	WL/ Mass	True Conc	ICV6-1 8/25/2010 7:57 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.62	**104.8**								

5.11.0 *Form 2A Equivalent*

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4380-10

Element	WL/ Mass	True Conc	CCV6-1 8/25/2010 8:02 AM		CCV6-2 8/25/2010 8:22 AM		CCV6-3 8/25/2010 8:43 AM		CCV6-4 8/25/2010 9:03 AM		CCV6-5 8/25/2010 9:23 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.09	**101.8**	5.03	**100.6**	5.12	**102.4**	5.12	**102.4**	5.03	**100.6**

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: G00825A.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: MET4380-10

Element	WL/ Mass	True Conc	CCV6-6 8/25/2010 9:39 AM Found	% Rec	CCV6-7 8/25/2010 9:45 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.10	**102.0**	5.01	**100.2**						

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4379-10

Element	WL/ Mass	True Conc	CRA/RLV 8/25/2010 8:00 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.18	**92.0**								

5.11.0

Form 2B Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 8/25/2010 7:58 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 8/25/2010 8:03 AM Found	Q	CCB2 8/25/2010 8:24 AM Found	Q	CCB3 8/25/2010 8:44 AM Found	Q	CCB4 8/25/2010 9:04 AM Found	Q	CCB5 X 8/25/2010 9:25 AM Found	Q
Mercury	253.7	0.2	0.0	U	**0.0**	**B**	**0.0**	**B**	**0.0**	**B**	0.0	U

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00825A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 8/25/2010 9:40 AM Found	Q	CCB7 8/25/2010 9:47 AM Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	**0.0**	**B**	0.0	U						

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

William a Hoyle
8-30-10

TEST2 Folder: G00830F Page 1744
09:37:38 30 Aug 2010 Protocol: hgppb

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: ICV6-1 Seq: 8 09:37:38 30 Aug 10 HG

Hg 2.60 ppb 14446 MET4468-10

*** Sample ID: ICB1 Seq: 9 09:39:14 30 Aug 10 HG

Hg .006 ppb 140

*** Sample ID: CRA/RLV Seq: 10 09:41:00 30 Aug 10 HG

Hg .203 ppb 1224 MET4469-10

*** Sample ID: CCV6-1 Seq: 11 09:42:36 30 Aug 10 HG

Hg 4.95 ppb 27368 MET4470-10

*** Sample ID: CCB1 Seq: 12 09:44:12 30 Aug 10 HG

Hg .003 ppb 119

*** Sample ID: L59W0B Seq: 13 09:46:19 30 Aug 10 HG

Hg .007 ppb 142

*** Sample ID: L59W0C Seq: 14 09:48:16 30 Aug 10 HG

Hg 2.47 ppb 13705 MET4471-10

*** Sample ID: L5VR7 Seq: 15 09:49:52 30 Aug 10 HG

Hg 1.68 ppb 9342

*** Sample ID: L5VR7S Seq: 16 09:51:39 30 Aug 10 HG SP. REC. 107%

Hg 2.75 ppb 15230

*** Sample ID: L5VR7D Seq: 17 09:53:17 30 Aug 10 HG SP. REC. 113%

Hg 2.81 ppb 15590

*** Sample ID: L5VR9 Seq: 18 09:54:54 30 Aug 10 HG

Hg 2.67 ppb 14813

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L5VTC Seq: 19 09:56:32 30 Aug 10 HG

Hg 6.26 ppb 34555

*** Sample ID: L5VTD Seq: 20 09:58:10 30 Aug 10 HG

Hg .820 ppb 4622

*** Sample ID: L5VTE Seq: 21 09:59:58 30 Aug 10 HG

Hg .255 ppb 1508

*** Sample ID: L5VTG Seq: 22 10:01:47 30 Aug 10 HG

Hg .138 ppb 865

*** Sample ID: CCV6-2 Seq: 23 10:03:47 30 Aug 10 HG

Hg 4.97 ppb 27463

*** Sample ID: CCB2 Seq: 24 10:05:28 30 Aug 10 HG

Hg -.004 ppb 85

*** Sample ID: L5VTH Seq: 25 10:07:17 30 Aug 10 HG

Hg .041 ppb 329

*** Sample ID: L5VTK Seq: 26 10:09:17 30 Aug 10 HG

Hg 2.11 ppb 11706

*** Sample ID: L5VTL Seq: 27 10:10:56 30 Aug 10 HG

Hg .216 ppb 1295

*** Sample ID: L5VTM Seq: 28 10:12:35 30 Aug 10 HG

Hg .189 ppb 1147

*** Sample ID: L5VTN Seq: 29 10:14:17 30 Aug 10 HG

Hg .169 ppb 1034

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L5VTP Seq: 30 10:15:56 30 Aug 10 HG

Hg 1.46 ppb 8124

*** Sample ID: L5VTT Seq: 31 10:17:34 30 Aug 10 HG

Hg 2.02 ppb 11229

*** Sample ID: L5VTV Seq: 32 10:19:22 30 Aug 10 HG

Hg 2.95 ppb 16342

*** Sample ID: L5VTW Seq: 33 10:21:13 30 Aug 10 HG

Hg 6.28 ppb 34693

*** Sample ID: L5VTX Seq: 34 10:22:50 30 Aug 10 HG

Hg 1.87 ppb 10379

*** Sample ID: CCV6-3 Seq: 35 10:24:31 30 Aug 10 HG

Hg 4.94 ppb 27316

*** Sample ID: CCB3 Seq: 36 10:26:08 30 Aug 10 HG

Hg -.006 ppb 73

*** Sample ID: L5VT0 Seq: 37 10:27:46 30 Aug 10 HG

Hg 1.35 ppb 7542

*** Sample ID: L5VT1 Seq: 38 10:29:34 30 Aug 10 HG

Hg 2.06 ppb 11470

*** Sample ID: L5VT2 Seq: 39 10:31:14 30 Aug 10 HG

Hg 2.10 ppb 11687

*** Sample ID: L5VT3 Seq: 40 10:32:52 30 Aug 10 HG

Hg .293 ppb 1718

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00830F.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4468-10

Element	WL/ Mass	True Conc	ICV6-1 8/30/2010 9:37 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.60	**104.0**								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00830F.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4470-10

Element	WL/ Mass	True Conc	CCV6-1 8/30/2010 9:42 AM Found	% Rec	CCV6-2 8/30/2010 10:03 AM Found	% Rec	CCV6-3 8/30/2010 10:24 AM Found	% Rec	CCV6-4 8/30/2010 10:45 AM Found	% Rec	CCV6-5 8/30/2010 10:55 AM Found	% Rec
Mercury	253.7	5.0	4.95	**99.0**	4.97	**99.4**	4.94	**98.8**	4.97	**99.4**	5.01	**100.2**

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00830F.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4469-10

Element	WL/ Mass	True Conc	CRA/RLV 8/30/2010 9:41 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.20	**101.5**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00830F.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 8/30/2010 9:39 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00830F.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 8/30/2010 9:44 AM Found	Q	CCB2 8/30/2010 10:05 AM Found	Q	CCB3 8/30/2010 10:26 AM Found	Q	CCB4 8/30/2010 10:47 AM Found	Q	CCB5 8/30/2010 10:56 AM Found	Q
Mercury	253.7	0.2	0.0	U	0.0	U	0.0	U	**0.0**	**B**	**0.0**	**B**

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

Tetra Tech Middle River, MD

Ratio for SEM/AVS

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Lot Number: C0H190588
Date Received: 8/19/10

Client Sample ID	Sample Number	Ratio
SD-87-SS	013	0.4196
SD-87-01	014	3.5208
SD-87-02	015	2.7977
SD-87-04	016	NA
SD-101-SS	017	0.1088
SD-101-01	018	0.4356
SD-101-02	019	1.2682
SD-101-04	020	1.8697

TestAmerica Pittsburgh

Sulfide AVS Distillation Worksheet

Batch No: 0242175

Method Sulfide AVS	**Matrix** Solid	**Lot Numbers** C0H180436, C0H190479, C0H190588, C0H240467, C0H250483
Start Time 08:30	**Stop Time** 09:30	
Start Temp. 20.8	**Stop Temp.** 21.6	
Analyst Dennis Baker	**Date** 08/31/2010	
Analyst Sign: D Baker		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N) [1]	Comments
L6A1M1AA B	10.0 g	50		NA	Glass Beads WC 3168-10
L6A1M1AC C			DB 8-31-10		" " + 1.0 ml 4324-10
L6A1M1AD L					" " + 1.0 ml 4324-10
L52451CH			2010-09-06		
L54QD1CH			2010-09-07		
L5QK01CH					
L5TQ31CH					
L5TTT1CG					
L5VR01AR					
L5VR21AL					
L5VR31AR					
L5VR41AR					
L5VR61AX					
L5VRR1A4					
L5VRT1AF					
L5VRX1AL					

DB 8-31-10

DB 8-31-10

DB 8-31-10

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Sulfide Stock, Std 2717-09, Standards Log
Sulfide LCS, WC 4324-10, Standards Log
Zinc Acetate, Std 1911-10, StandardsLog
Sulfide CCV, WC 4325-10, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	25606
Pipet #:	H30608
LCS True Value:	2.9944 umoles
LCS StdsLogID:	WC 4324-10
MS/MSD Conc.:	2.9944 umoles
MS/MSD StdsLogID:	WC 4324-10
Glass or Plastic Beads:	Standard ID WC 3168-10

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
All Above	8-31-10	1010	DB	WC	8-31-10	1010	DB	Ref-2
All Above	8-31-10	1310	DB	Ref-2	8-31-10	1350	DB	Disposed

Additional Comments:

Reviewed By: 6311 **Date:** 8-31-10

WC-97-0242175 (6001-6312)

C0H190588

Printed on: 31-Aug-10 10:24:21 AM

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Acid Volatile Sulfide

Method: AVS

Analyst: bakerd
Date: 8/31/2010
Start Time: 1:13 pm
Batch: 0242175
Location: Pittsburgh

Stock Std. ID#: WC 4324-10 Prep: 08/31/2010 Balance ID#: 25606
CCV Std. ID#: WC 4325-10 Exp: 09/07/2010 True Value: 960

LCS 1 mL of 960 ppm (ID#: WC 4324-10)= 2.9944 umoles Range:_+/-15%
CCV 1 mL of 960 ppm (ID#: WC 4325-10)= 19.2 ppm Range:_+/-10%

Calculations:

$$\text{Sulfide mg/L} = \frac{[(\text{mL of Iodine} * \text{N Iodine}) - (\text{mL of } Na_2S_2O_3 \text{ X N } Na_2S_2O_3)] * 16000}{\text{mL of Sample}}$$

Iodine Standardization ID#: WC 3765-10

$$0.025 \quad \text{N Iodine} = \frac{(20 \text{ mL } Na_2S_2O_3)(0.025 \text{ N of } Na_2S_2O_3)}{20.0 \text{ mL of Iodine Solution}}$$

Relative Percent Difference:

X1 = Original Result
X2 = Duplicate

$$\left(\frac{X1 - X2}{\frac{X1 + X2}{2}} \right) \times 100$$

Sodium Thiosulfate Standardization

ID#: WC 1912-10 Avg.= 0.025

Titration	mLs	Normality
1	10	0.025
2	10	0.025

$$\frac{(10 \text{ mL of } KH(IO_3)^2)(0.025N \ KH(IO_3)^2)}{\text{mL of } Na_2S_2O_3}$$

True Value LCS/ICV: 2.9944 umoles
True Value MS/MSD: 2.9944 umoles
True Value CCV: 19.2 ppm

SampleID	Sample mL	Iodine mL	$Na_2S_2O_3$ mL	Sulfide mg/kg	AVS umol/g*	LDL	%Rec	RPD
ICV	50.00	10.00	7.61	19.10		3.00	100.00 ✓	
ICB	50.00	10.00	10.03	0.00		3.00		
C0H300000-175B	10.00	10.00	10.02	0.00	0.00	0.50		
C0H300000-175C	10.00	10.00	7.59	96.40	3.01	0.50	100.00	
C0H300000-175L	10.00	10.00	7.61	95.60	2.98	0.50	100.00	0.83
C0H180436-2	10.00	10.00	9.69	12.40	0.39	0.50		
C0H190479-1	10.00	20.00	0.96	761.60	23.75	0.50		
C0H190479-9	10.00	10.00	10.05	0.00	0.00	0.50		
C0H190588-13	10.00	10.00	4.51	219.60	6.85	0.50		
C0H190588-14	10.00	10.00	8.95	42.00	1.31	0.50		
C0H190588-15	10.00	10.00	8.31	67.60	2.11	0.50		
C0H190588-16	10.00	10.00	10.05	0.00	0.00	0.50		
CCV1	50.00	10.00	7.62	19.00		3.00	99.00 ✓	
CCB1	50.00	10.00	10.02	0.00		3.00		
C0H190588-17	10.00	20.00	11.29	348.40	10.87	0.50		
C0H190588-18	10.00	10.00	7.13	114.80	3.58	0.50		
C0H190588-19	10.00	10.00	8.78	48.80	1.52	0.50		
C0H190588-20	10.00	10.00	9.85	6.00	0.19	0.50		
C0H240467-5	10.00	10.00	10.02	0.00	0.00	0.50		
C0H250483-1	10.00	10.00	10.02	0.00	0.00	0.50		
CCV2	50.00	10.00	7.58	19.40		3.00	101.00 ✓	
CCB2	50.00	10.00	10.03	0.00		3.00		

Analyst: D Baker Date: 8-31-10

* umol/g AVS concentration value is obtained by dividing the Sulfide mg/kg result by 32.066 (molecular weight of Sulfur)

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H190588
Matrix:	SOLID	**Date/Time Received:**	8/18/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0H300000175B	175 MB	L6A1M1AA	ND	umoles/g	0.50	8/31/2010 - 8/31/2010 13:13	0242175	

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0H300000
Date/Time Received: 8/18/2010 10:00:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6A1M1AC	100	85 - 115	8/31/2010 - 8/31/2010 13:13	0242175	0.83 / 20
DUPLICATE CHECK	LCSD	L6A1M1AD	100	85 - 115	8/31/2010 - 8/31/2010 13:13	0242175	0.83 / 20

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Report ID: C0H190588
Date/Time Received: 8/19/2010 10:30:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
SD-92-SS DUP	001 DUP	L5VQ71AU	53.2	%	1.0	8/20/2010 - 8/21/2010 05:05	0232091	0.40 / 20
SD-102-SS DUP	021 DUP	L5VR71AU	28.4	%	1.0	8/20/2010 - 8/21/2010 05:01	0232100	1.1 / 20

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Report ID: C0H190588
Date/Time Received: 8/18/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0H230000201B	201 MB	L51QM1AA	ND	mg/kg	2000	8/23/2010 - 8/24/2010 15:56	0235201	
INTRA-LAB QC	004 DUP	L5QT21DW	73100	mg/kg	3890	8/23/2010 - 8/24/2010 19:04	0235201	24 / 20

Not Tt sample

No qual

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Lot Number: C0H180458
Date/Time Received: 8/18/2010 10:00:00AM

Not our Sample

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
LAB MS/MSD	MS	L5QT21DQ	170 N	75 - 125	8/23/2010 - 8/24/2010 18:50	0235201	11 / 20
LAB MS/MSD	MSD	L5QT21DR	132 N	75 - 125	8/23/2010 - 8/24/2010 18:35	0235201	11 / 20
DUPLICATE CHECK	LCSD	L51QM1AD	84	75 - 125	8/23/2010 - 8/24/2010 16:25	0235201	1.2 / 20
CHECK SAMPLE	LCS	L51QM1AC	85	75 - 125	8/23/2010 - 8/24/2010 16:10	0235201	1.2 / 20

Eager 300 for Windows

Method name : Lloyd Kahn TOC
Method filename : C:\data\January\082410.mth

Sample table

Chromatogram overwrite : Enabled

#	Sample name	Filename	Type	Weight
1	BY PASS	A081810001	ByP	-
2	BLANK	A081810002	Unk	20
3	BLANK	A081810003	Unk	20
4	LOW KHP	A081810004	Std	200
5	MLOW KHP	A081810005	Std	50
6	MED KHP	A081810006	Std	100
7	MHIGH KHP	A081810007	Std	200
8	HIGH KHP	A081810008	Std	50
9	XHIGH KHP	A081810009	Std	100
10	XXHIGH KHP	A081810010	Std	200
11	ICV KHP	A081810011	Unk	10
12	CCB	A081810012	Unk	20
13	CCV	A081810013	Unk	100
14	RINSE	A082410001	Unk	1
15	RINSE	A082410002	Unk	1
16	CCB	A082410003	Unk	20
17	CCV	A082410004	Unk	100
18	L51G51AA	A082410005	Unk	43
19	L51G51AC	A082410006	Unk	43
20	L51G51AD	A082410007	Unk	43
21	L450C1C0	A082410008	Unk	43
22	L450G1CA	A082410009	Unk	43
23	L450J1CW	A082410010	Unk	43
24	L45061C0	A082410011	Unk	43
25	L451H1CW	A082410012	Unk	43
26	L48RH1A9	A082410013	Unk	43
27	L5G6L1C0	A082410014	Unk	43
28	L5G6Q1CW	A082410015	Unk	43
29	L5G7A1C0	A082410016	Unk	43
30	L5G7H1CA	A082410017	Unk	43
31	L5G7L1CA	A082410018	Unk	43
32	L5ET71AA	A082410019	Unk	1
33	L5ET81AA	A082410020	Unk	1
34	RINSE	A082410021	Unk	1
35	RINSE	A082410022	Unk	1
36	CCB	A082410023	Unk	~~100~~
37	CCV	A082410024	Unk	100

ale 082510

#	Sample name	Filename	Type	Weight
38	L51QM1AA	A082410025	Unk	10
39	L51QM1AA	A082410026	Unk	10
40	L51QM1AC	A082410027	Unk	10.8
41	L51QM1AC	A082410028	Unk	10.5
42	L51QM1AD	A082410029	Unk	9.7
43	L51QM1AD	A082410030	Unk	10.4
44	L5JL41A6	A082410031	Unk	4.3
45	L5JL41A6	A082410032	Unk	4.8
46	L5JM41AH	A082410033	Unk	4.8
47	L5JM41AH	A082410034	Unk	5.2
48	L5QTV1A4	A082410035	Unk	11.4
49	L5QTV1A4	A082410036	Unk	10.2
50	L5QTW1A4	A082410037	Unk	10.3
51	L5QTW1A4	A082410038	Unk	10.5
52	L5QTX1A4	A082410039	Unk	10.8
53	L5QTX1A4	A082410040	Unk	9.8
54	L5QT21DP	A082410041	Unk	11.4
55	L5QT21DP	A082410042	Unk	9.6
56	RINSE	A082410043	Unk	1
57	RINSE	A082410044	Unk	1
58	CCB	A082410045	Unk	20
59	CCV	A082410046	Unk	100
60	L5QT21DR	A082410047	Unk	10.1
61	L5QT21DR	A082410048	Unk	10.8
62	L5QT21DQ	A082410049	Unk	11.1
63	L5QT21DQ	A082410050	Unk	10.5
64	L5QT21DW	A082410051	Unk	9.4
65	L5QT21DW	A082410052	Unk	10.7
66	L5QT31A4	A082410053	Unk	11.2
67	L5QT31A4	A082410054	Unk	10.3
68	L5QT41A4	A082410055	Unk	9.9
69	L5QT41A4	A082410056	Unk	10.2
70	5VRR1AC	A082410057	Unk	10.9
71	L5VRR1AC	A082410058	Unk	9.4
72	L5VRT1AH	A082410059	Unk	11.3
73	L5VRT1AH	A082410060	Unk	10.9
74	L5VRX1AN	A082410061	Unk	9.6
75	L5VRX1AN	A082410062	Unk	11.4
76	L5VR21AN	A082410063	Unk	11
77	L5VR21AN	A082410064	Unk	9.8
78	RINSE	A082410065	Unk	1
79	RINSE	A082410066	Unk	1
80	CCB	A082410067	Unk	20
81	CCV	A082410068	Unk	100
82	L5VR31AU	A082410069	Unk	11.2
83	L5VR31AU	A082410070	Unk	9.8

#	Sample name	Filename	Type	Weight
84	L5VR41AU	A082410071	Unk	10.4
85	L5VR41AU	A082410072	Unk	10.3
86	L5X2M1AC	A082410073	Unk	10.1
87	L5X2M1AC	A082410074	Unk	9.8
88	L5X2P1AH	A082410075	Unk	10
89	L5X2P1AH	A082410076	Unk	10.8
90	L5X2T1AN	A082410077	Unk	11.3
91	L5X2T1AN	A082410078	Unk	9.6
92	L5X201AU	A082410079	Unk	11.3
93	L5X201AU	A082410080	Unk	10
94	C0H200635-23	A082410081	Unk	10.3
95	C0H200635-23	A082410082	Unk	9.4
96	RINSE	A082410083	Unk	1
97	RINSE	A082410084	Unk	1
98	CCB	A082410085	Unk	20
99	CCV	A082410086	Unk	100

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Lloyd Kahn Sequence Log

Analyst: LOHEYDEC
Location: Pittsburgh

(6001-6312)

CCV STD# WC0649-10 LCS STD# WC3685-10 Prep Date 8/23/2010 Batch# 0235201

Sample ID	Weight mg	Sample ID	Weight mg	Sample ID	Weight mg
CCB		C0H180458-4	9.6	C0H190588-17	11.0
CCV		C0H180458-4D	10.1 + 10.2	C0H190588-17	9.8
C0H230000-201B		20 C0H180458-4D	10.8 + 11.0	C0H190588-18	11.2
C0H230000-201B		CCB		C0H190588-18	9.8
C0H230000-201C	10.8	CCV		C0H190588-19	10.4
C0H230000-201C	10.5	C0H180458-4S	11.1 + 10.8 40	C0H190588-19	10.3
C0H230000-201L	9.7	C0H180458-4S	10.5 + 9.9	CCB	
C0H230000-201L	10.4	C0H180458-4X	9.4	CCV	
C0H130459-1	4.3	C0H180458-4X	10.7	C0H200635-18	10.1
C0H130459-1	4.8	C0H180458-5	11.2	C0H200635-18	9.8
C0H130459-9	4.8	C0H180458-5	10.3	C0H200635-19	10.0
C0H130459-9	5.2	C0H180458-6	9.9	C0H200635-19	10.8
C0H180458-1	11.4	C0H180458-6	10.2	C0H200635-20	11.3
C0H180458-1	10.2	C0H190588-13	10.9	C0H200635-20	9.6
C0H180458-2	10.3	30 C0H190588-13	9.4	C0H200635-22	11.3
C0H180458-2	10.5	C0H190588-14	11.3	C0H200635-22	10.0
C0H180458-3	10.8	C0H190588-14	10.9	CCB	
C0H180458-3	9.9	C0H190588-15	9.6	CCV	
C0H180458-4	11.4	C0H190588-15	11.4	C0H200635-23	10.3
				50 C0H200635-23	9.4

6308

C0H190588

Date Printed: 8/23/2010 1:56:35PM

POC 8/23/10

COH120539	-001	69.28	26.50	42.8
↓	-003	68.98	26.46	42.5
COH120544	-001	69.00	26.52	42.5
↓	-002	69.04	26.54	42.5
↓	-004	68.96	26.45	42.5
COH060569	-020	70.05	26.81	43.2
COH050493	-001	69.59	26.77	42.8
↓	-003	69.59	26.83	42.8
COH060604	-003	67.56 X	1 me 143	
↓	-004	70.43 X	1 me 143	
COH050488	-001	68.97	26.52	42.4
↓	-002	69.07	26.56	42.5
↓	-004	69.24	26.61	42.6

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **OCTOBER 05, 2010**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAH / PCB**
MIDDLE RIVER CENTER
SAMPLE DELIVERY GROUP (SDG) C0H200635

SAMPLES: 30 / Sediment /

SD-100-01	SD-100-02	SD-100-04
SD-100-SS	SD-106-01	SD-106-02
SD-106-04	SD-106-SS	SD-88-01
SD-88-02	SD-88-04	SD-88-SS
SD-89-01	SD-89-02	SD-89-04
SD-89-SS	SD-96-01	SD-96-02
SD-96-04	SD-96-SS	SD-98-01
SD-98-02	SD-98-04	SD-98-SS
SD-99-01	SD-99-02	SD-99-04
SD-99-SS	SD-DUP4-02	SD-DUP5-01

OVERVIEW

The sample set for Middle River Center, SDG C0H200635, consists of thirty (30) sediment environmental samples. There are two (2) field duplicate pairs associated with this SDG: SD-100-02 (original) / SD-DUP4-02 (duplicate) and SD-96-01 (original) / SD-DUP5-01 (duplicate).

Samples were analyzed for polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB). The samples were collected by Tetra Tech NUS on August 18 and 19, 2010 and analyzed by TestAmerica Laboratories, Inc. All analyses were conducted in accordance with SW-846 Methods 8270C and 8082 analysis and reporting protocols.

The data in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/field blank results, surrogate spike recovery, internal standard recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, field duplicate results, compound identification, compound quantitation, and detection limits. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Major

- None.

Minor

- Samples SD-89-SS and SD-96-SS contained less than 70% solids. Positive and non-detected PAH and PCB results were qualified as estimated (J) in samples SD-89-SS and SD-96-SS in on this basis.

- Positive PAH results less than the reporting limit but greater than the method detection limit were qualified as estimated (J) due to uncertainty near the detection limit.

- Sample SD-98-SS had a relative percent difference (RPD) between columns that exceeded the quality control limit of 25% (but was less than 100%) for Aroclor-1260. The positive result for Aroclor-1260 in sample SD-98-SS was qualified as estimated on this basis.

- Positive PCB results less than the reporting limit but greater than the method detection limit were qualified as estimated (J) due to uncertainty near the detection limit.

Notes

All non-detected results were reported to method detection limits.

All PAH results in the following samples were reported from dilutions:

Sample	Dilution Factor
SD-100-SS	2.47
SD-98-04	2.47
SD-100-01	2.5
SD-89-04	2.5
SD-99-04	2.5
SD-89-SS	4.95
SD-98-02	4.95
SD-99-02	4.95
SD-100-04	4.97
SD-106-04	4.97
SD-106-SS	4.97
SD-88-04	4.97
SD-99-SS	4.97
SD-100-02	4.98
SD-106-01	5
SD-106-02	5
SD-88-01	5
SD-88-02	5
SD-88-SS	5
SD-89-01	5
SD-89-02	5
SD-96-01	5
SD-96-02	5
SD-96-SS	5
SD-98-01	5
SD-98-SS	5
SD-99-01	5
SD-DUP4-02	5
SD-DUP5-01	5

The PAH surrogate recovery for nitrobenzene-d5 for sample SD-100-04 was greater than the laboratory quality control range. No action was necessary because only one surrogate was outside of the quality control range.

All PCB results in the following samples were reported from dilutions:

Sample	Dilution Factor
SD-100-01	0.49
SD-100-02	0.5
SD-100-04	0.49
SD-100-SS	0.5
SD-106-01	0.5
SD-106-02	0.5
SD-106-04	0.49
SD-106-SS	0.49
SD-88-01	0.5
SD-88-02	0.5
SD-88-04	0.5
SD-88-SS	0.49
SD-89-01	0.49
SD-89-02	0.5
SD-89-04	0.5
SD-89-SS	0.5
SD-96-01	0.49
SD-96-02	0.5
SD-96-04	0.5
SD-96-SS	0.5
SD-98-01	0.5
SD-98-02	0.5
SD-98-04	0.5
SD-98-SS	0.49
SD-99-01	0.49
SD-99-02	0.5
SD-99-04	0.5
SD-99-SS	0.49
SD-DUP4-02	0.5
SD-DUP5-01	0.5

The percent difference between columns exceeded 25% for Aroclor-1260 in sample SD-96-SS. No action was taken because the RPD was less than 25%.

EXECUTIVE SUMMARY

Laboratory Performance Issues: One positive PCB result was qualified due to RPD between columns.

Other Factors Affecting Data Quality: Two samples contained less than 30% solids. Some positive PAH and PCB results were qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the "Region III Modifications to the National Functional Guidelines for Organic Data Review" (09/94). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani
Tetra Tech NUS

Leigh A. Ciofani
Environmental Scientist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	SD-100-01			SD-100-02			SD-100-04			SD-100-SS		
SDG: C0H200635	LAB_ID	C0H200635006			C0H200635007			C0H200635008			C0H200635005		
FRACTION: PAH	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	40.0			47.0			63.0			66.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		4	U		6.8	U		5.1	U		10	J	P
ACENAPHTHYLENE		4.8	U		8.1	U		6	U		50		
ANTHRACENE		4.1	U		6.9	U		5.2	U		47		
BENZO(A)ANTHRACENE		5.2	U		8.8	U		6.6	U		170		
BENZO(A)PYRENE		4.2	U		7	U		5.3	U		160		
BENZO(B)FLUORANTHENE		6.6	U		11	U		8.3	U		300		
BENZO(G,H,I)PERYLENE		4.2	U		7	U		5.2	U		150		
BENZO(K)FLUORANTHENE		8.4	U		14	U		11	U		5.1	U	
CHRYSENE		5	U		8.4	U		6.3	U		160		
DIBENZO(A,H)ANTHRACENE		4.6	U		7.8	U		5.9	U		70		
FLUORANTHENE		24	J	P	7.5	U		5.6	U		250		
FLUORENE		5.5	U		9.3	U		6.9	U		19	J	P
INDENO(1,2,3-CD)PYRENE		4.3	U		7.3	U		5.4	U		140		
NAPHTHALENE		3.6	U		6.1	U		4.5	U		20	J	P
PHENANTHRENE		15	J	P	11	U		8.4	U		97		
PYRENE		17	J	P	7.1	U		5.3	U		210		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-106-01			SD-106-02			SD-106-04			SD-106-SS		
	LAB_ID	C0H200635002			C0H200635003			C0H200635004			C0H200635001		
	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	37.0			35.0			36.0			34.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		8.8	U		9.2	U		9	U		9.5	U	
ACENAPHTHYLENE		10	U		11	U		11	U		17	J	P
ANTHRACENE		8.9	U		9.3	U		9.1	U		29	J	P
BENZO(A)ANTHRACENE		11	U		12	U		12	U		57	J	P
BENZO(A)PYRENE		9.1	U		9.6	U		9.3	U		9.9	U	
BENZO(B)FLUORANTHENE		14	U		15	U		15	U		69	J	P
BENZO(G,H,I)PERYLENE		9.1	U		9.5	U		9.3	U		9.8	U	
BENZO(K)FLUORANTHENE		18	U		19	U		19	U		20	U	
CHRYSENE		11	U		11	U		11	U		52	J	P
DIBENZO(A,H)ANTHRACENE		10	U		11	U		10	U		11	U	
FLUORANTHENE		9.8	U		10	U		10	U		110		
FLUORENE		12	U		13	U		12	U		13	U	
INDENO(1,2,3-CD)PYRENE		9.4	U		9.8	U		9.6	U		230		
NAPHTHALENE		7.9	U		8.2	U		8	U		59	J	P
PHENANTHRENE		15	U		15	U		15	U		110		
PYRENE		9.2	U		9.7	U		9.4	U		90	J	P

PROJ_NO: 02903	NSAMPLE	SD-88-01			SD-88-02			SD-88-04			SD-88-SS		
SDG: C0H200635	LAB_ID	C0H200635019			C0H200635020			C0H200635021			C0H200635018		
FRACTION: PAH	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			36.0			51.0			31.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		76	J	P	210			6.3	U		120		
ACENAPHTHYLENE		220			260			21	J	P	210		
ANTHRACENE		320			670			13	J	P	320		
BENZO(A)ANTHRACENE		760			2200			47	J	P	890		
BENZO(A)PYRENE		880			2100			30	J	P	920		
BENZO(B)FLUORANTHENE		1600			3700			41	J	P	1700		
BENZO(G,H,I)PERYLENE		910			1500			6.5	U		880		
BENZO(K)FLUORANTHENE		22	U		19	U		13	U		22	U	
CHRYSENE		930			2200			37	J	P	1100		
DIBENZO(A,H)ANTHRACENE		370			510			7.3	U		370		
FLUORANTHENE		1600			5100			79			1800		
FLUORENE		100	J	P	260			8.6	U		100	J	P
INDENO(1,2,3-CD)PYRENE		770			1300			150			800		
NAPHTHALENE		180			230			12	J	P	140		
PHENANTHRENE		600			1800			56	J	P	630		
PYRENE		1400			3700			53	J	P	1500		

PROJ_NO: 02903	NSAMPLE	SD-89-01			SD-89-02			SD-89-04			SD-89-SS		
SDG: C0H200635	LAB_ID	C0H200635023			C0H200635025			C0H200635026			C0H200635022		
FRACTION: PAH	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			33.0			48.0			29.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		56	J	P	99	J	P	3.3	U		38	J	PY
ACENAPHTHYLENE		140			240			18	J	P	110	J	PY
ANTHRACENE		200			330			29	J	P	160	J	Y
BENZO(A)ANTHRACENE		480			810			72			390	J	Y
BENZO(A)PYRENE		520			940			60			400	J	Y
BENZO(B)FLUORANTHENE		880			1300			75			760	J	Y
BENZO(G,H,I)PERYLENE		610			910			99			550	J	Y
BENZO(K)FLUORANTHENE		22	U		20	U		49			23	UJ	Y
CHRYSENE		510			930			58			460	J	Y
DIBENZO(A,H)ANTHRACENE		290			250			3.8	U		13	UJ	Y
FLUORANTHENE		850			1800			110			750	J	Y
FLUORENE		59	J	P	130			32	J	P	62	J	PY
INDENO(1,2,3-CD)PYRENE		540			840			100			500	J	Y
NAPHTHALENE		98	J	P	210			23	J	P	95	J	PY
PHENANTHRENE		350			700			84			270	J	Y
PYRENE		830			1500			130			670	J	Y

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-96-01			SD-96-02			SD-96-04			SD-96-SS		
	LAB_ID	C0H200635015			C0H200635016			C0H200635017			C0H200635014		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			36.0			64.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		59	J	P	110			27			38	J	Y
ACENAPHTHYLENE		160			200			29			110	J	Y
ANTHRACENE		210			300			41			170	J	Y
BENZO(A)ANTHRACENE		560			750			81			380	J	Y
BENZO(A)PYRENE		640			740			81			500	J	Y
BENZO(B)FLUORANTHENE		1100			1400			150			1100	J	Y
BENZO(G,H,I)PERYLENE		680			760			81			730	J	Y
BENZO(K)FLUORANTHENE		22	U		19	U		2.1	U		28	UJ	Y
CHRYSENE		610			770			92			530	J	Y
DIBENZO(A,H)ANTHRACENE		300			310			32			15	UJ	Y
FLUORANTHENE		1100			1500			210			870	J	Y
FLUORENE		77	J	P	120			24			63	J	Y
INDENO(1,2,3-CD)PYRENE		620			660			73			660	J	Y
NAPHTHALENE		130			180			35			100	J	Y
PHENANTHRENE		410			660			94			330	J	Y
PYRENE		1100			1400			210			770	J	Y

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-98-01			SD-98-02			SD-98-04			SD-98-SS		
	LAB_ID	C0H200635010			C0H200635011			C0H200635013			C0H200635009		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			35.0			60.0			30.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		62	J	P	63	J	P	43			38	J	P
ACENAPHTHYLENE		150			160			58			100	J	P
ANTHRACENE		240			230			80			170		
BENZO(A)ANTHRACENE		620			560			190			300		
BENZO(A)PYRENE		700			570			170			400		
BENZO(B)FLUORANTHENE		1300			1100			310			820		
BENZO(G,H,I)PERYLENE		750			600			170			530		
BENZO(K)FLUORANTHENE		20	U		19	U		5.5	U		22	U	
CHRYSENE		750			580			190			430		
DIBENZO(A,H)ANTHRACENE		300			230			83			250		
FLUORANTHENE		1200			990			430			660		
FLUORENE		92	J	P	75	J	P	42			60	J	P
INDENO(1,2,3-CD)PYRENE		610			560			160			480		
NAPHTHALENE		160			160			68			92	J	P
PHENANTHRENE		490			440			180			260		
PYRENE		1100			1000			370			690		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-99-01			SD-99-02			SD-99-04			SD-99-SS		
	LAB_ID	C0H200635028			C0H200635029			C0H200635030			C0H200635027		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	41.0			38.0			42.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		7.9	U		8.4	U		3.8	U		8.3	U	
ACENAPHTHYLENE		9.4	U		10	U		4.5	U		9.9	U	
ANTHRACENE		8	U		8.5	U		3.9	U		8.5	U	
BENZO(A)ANTHRACENE		10	U		11	U		5	U		11	U	
BENZO(A)PYRENE		8.2	U		8.7	U		4	U		8.7	U	
BENZO(B)FLUORANTHENE		13	U		14	U		6.2	U		14	U	
BENZO(G,H,I)PERYLENE		8.1	U		8.7	U		3.9	U		8.6	U	
BENZO(K)FLUORANTHENE		17	U		18	U		8	U		18	U	
CHRYSENE		9.7	U		10	U		4.7	U		10	U	
DIBENZO(A,H)ANTHRACENE		9.1	U		9.7	U		4.4	U		9.6	U	
FLUORANTHENE		8.7	U		9.3	U		4.2	J	P	9.3	U	
FLUORENE		11	U		11	U		5.2	U		11	U	
INDENO(1,2,3-CD)PYRENE		8.4	U		9	U		4.1	U		8.9	U	
NAPHTHALENE		7	U		7.5	U		3.4	U		7.5	U	
PHENANTHRENE		13	U		14	U		6.7	J	P	14	U	
PYRENE		8.3	U		8.8	U		4	U		8.8	U	

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-DUP4-02			SD-DUP5-01		
	LAB_ID	C0H200635012			C0H200635024		
	SAMP_DATE	8/19/2010			8/19/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	51.0			32.0		
	DUP_OF	SD-100-02			SD-96-01		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		6.2	U		55	J	P
ACENAPHTHYLENE		7.4	U		130		
ANTHRACENE		6.4	U		210		
BENZO(A)ANTHRACENE		8.1	U		510		
BENZO(A)PYRENE		6.5	U		510		
BENZO(B)FLUORANTHENE		10	U		900		
BENZO(G,H,I)PERYLENE		6.5	U		600		
BENZO(K)FLUORANTHENE		13	U		21	U	
CHRYSENE		7.7	U		500		
DIBENZO(A,H)ANTHRACENE		7.2	U		270		
FLUORANTHENE		7	U		960		
FLUORENE		8.6	U		61	J	P
INDENO(1,2,3-CD)PYRENE		6.7	U		540		
NAPHTHALENE		5.6	U		120		
PHENANTHRENE		10	U		380		
PYRENE		6.6	U		890		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-100-01			SD-100-02			SD-100-04			SD-100-SS		
	LAB_ID	C0H200635006			C0H200635007			C0H200635008			C0H200635005		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	40.0			47.0			63.0			66.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3	U		2.6	U		1.9	U		1.9	U	
AROCLOR-1221		3.9	U		3.4	U		2.5	U		2.4	U	
AROCLOR-1232		3.5	U		3	U		2.2	U		2.2	U	
AROCLOR-1242		3.3	U		2.9	U		2.1	U		2.1	U	
AROCLOR-1248		1.9	U		1.7	U		1.2	U		1.2	U	
AROCLOR-1254		2.9	U		2.5	U		1.8	U		1.8	U	
AROCLOR-1260		2.9	U		2.5	U		1.8	U		99		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-106-01			SD-106-02			SD-106-04			SD-106-SS		
	LAB_ID	C0H200635002			C0H200635003			C0H200635004			C0H200635001		
	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	37.0			35.0			36.0			34.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.4	U		3.5	U		3.4	U		3.6	U	
AROCLOR-1221		4.3	U		4.6	U		4.4	U		4.6	U	
AROCLOR-1232		3.9	U		4.1	U		3.9	U		4.2	U	
AROCLOR-1242		3.7	U		3.9	U		3.7	U		4	U	
AROCLOR-1248		2.2	U		2.3	U		2.2	U		2.3	U	
AROCLOR-1254		3.2	U		3.4	U		3.3	U		3.5	U	
AROCLOR-1260		3.2	U		3.4	U		3.3	U		3.5	U	

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-88-01			SD-88-02			SD-88-04			SD-88-SS		
	LAB_ID	C0H200635019			C0H200635020			C0H200635021			C0H200635018		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			36.0			51.0			31.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		4	U		3.5	U		2.5	U		3.9	U	
AROCLOR-1221		5.1	U		4.5	U		3.1	U		5	U	
AROCLOR-1232		4.6	U		4	U		2.8	U		4.5	U	
AROCLOR-1242		4.4	U		3.8	U		2.7	U		4.3	U	
AROCLOR-1248		2.5	U		2.2	U		1.6	U		2.5	U	
AROCLOR-1254		3.8	U		3.3	U		2.3	U		3.7	U	
AROCLOR-1260		1800			220			2.3	U		6600		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-89-01			SD-89-02			SD-89-04			SD-89-SS		
	LAB_ID	C0H200635023			C0H200635025			C0H200635026			C0H200635022		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			33.0			48.0			29.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		4	U		3.7	U		2.6	U		4.3	UJ	Y
AROCLOR-1221		5.1	U		4.7	U		3.3	U		5.5	UJ	Y
AROCLOR-1232		4.6	U		4.3	U		2.9	U		5	UJ	Y
AROCLOR-1242		4.3	U		4.1	U		2.8	U		4.7	UJ	Y
AROCLOR-1248		2.5	U		2.4	U		1.6	U		2.7	UJ	Y
AROCLOR-1254		3.8	U		3.5	U		2.4	U		4.1	UJ	Y
AROCLOR-1260		1500			1300			15	J	P	1800	J	Y

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-96-01			SD-96-02			SD-96-04			SD-96-SS		
	LAB_ID	C0H200635015			C0H200635016			C0H200635017			C0H200635014		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	31.0			36.0			64.0			24.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.9	U		3.4	U		1.9	U		5.1	UJ	Y
AROCLOR-1221		5	U		4.4	U		2.5	U		6.6	UJ	Y
AROCLOR-1232		4.5	U		3.9	U		2.2	U		5.9	UJ	Y
AROCLOR-1242		4.2	U		3.8	U		2.1	U		5.6	UJ	Y
AROCLOR-1248		2.5	U		2.2	U		1.2	U		3.3	UJ	Y
AROCLOR-1254		3.7	U		3.3	U		1.9	U		4.9	UJ	Y
AROCLOR-1260		1900			770			11	J	P	1800	J	Y

PROJ_NO: 02903 SDG: C0H200635 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-98-01			SD-98-02			SD-98-04			SD-98-SS		
	LAB_ID	C0H200635010			C0H200635011			C0H200635013			C0H200635009		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			35.0			60.0			30.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.7	U		3.5	U		2.1	U		4	U	
AROCLOR-1221		4.7	U		4.5	U		2.6	U		5.2	U	
AROCLOR-1232		4.2	U		4	U		2.4	U		4.7	U	
AROCLOR-1242		4	U		3.8	U		2.3	U		4.4	U	
AROCLOR-1248		2.3	U		2.2	U		1.3	U		2.6	U	
AROCLOR-1254		3.5	U		3.4	U		2	U		3.9	U	
AROCLOR-1260		920			880			27			2700	J	U

PROJ_NO: 02903	NSAMPLE	SD-99-01			SD-99-02			SD-99-04			SD-99-SS		
SDG: C0H200635	LAB_ID	C0H200635028			C0H200635029			C0H200635030			C0H200635027		
FRACTION: PEST/PCB	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	41.0			38.0			42.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3	U		3.3	U		2.9	U		3.2	U	
AROCLOR-1221		3.8	U		4.2	U		3.8	U		4.1	U	
AROCLOR-1232		3.4	U		3.8	U		3.4	U		3.7	U	
AROCLOR-1242		3.3	U		3.6	U		3.2	U		3.5	U	
AROCLOR-1248		1.9	U		2.1	U		1.9	U		2	U	
AROCLOR-1254		2.8	U		3.1	U		2.8	U		3	U	
AROCLOR-1260		2.8	U		3.1	U		2.8	U		14	J	P

PROJ_NO: 02903	NSAMPLE	SD-DUP4-02			SD-DUP5-01		
SDG: C0H200635	LAB_ID	C0H200635012			C0H200635024		
FRACTION: PEST/PCB	SAMP_DATE	8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	51.0			32.0		
	DUP_OF	SD-100-02			SD-96-01		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.4	U		3.8	U	
AROCLOR-1221		3.1	U		4.9	U	
AROCLOR-1232		2.8	U		4.4	U	
AROCLOR-1242		2.6	U		4.2	U	
AROCLOR-1248		1.5	U		2.4	U	
AROCLOR-1254		2.3	U		3.7	U	
AROCLOR-1260		2.3	U		1800		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: SD-100-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-006	**Work Order #...:**	L5X151AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 08:49	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	16:03		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	60	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	42	ug/kg	3.6
Acenaphthylene	ND	42	ug/kg	4.8
Acenaphthene	ND	42	ug/kg	4.0
Fluorene	ND	42	ug/kg	5.5
Phenanthrene	**15 J**	**42**	**ug/kg**	**6.6**
Anthracene	ND	42	ug/kg	4.1
Fluoranthene	**24 J**	**42**	**ug/kg**	**4.5**
Pyrene	**17 J**	**42**	**ug/kg**	**4.2**
Benzo(a)anthracene	ND	42	ug/kg	5.2
Chrysene	ND	42	ug/kg	5.0
Benzo(b)fluoranthene	ND	42	ug/kg	6.6
Benzo(k)fluoranthene	ND	42	ug/kg	8.4
Benzo(a)pyrene	ND	42	ug/kg	4.2
Indeno(1,2,3-cd)pyrene	ND	42	ug/kg	4.3
Dibenzo(a,h)anthracene	ND	42	ug/kg	4.6
Benzo(ghi)perylene	ND	42	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(27 - 110)
Terphenyl-d14	64	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	59	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	71	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-007	**Work Order #...:**	L5X161AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 08:51	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	16:24		
Dilution Factor:	4.98	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	53	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	71	ug/kg	6.1
Acenaphthylene	ND	71	ug/kg	8.1
Acenaphthene	ND	71	ug/kg	6.8
Fluorene	ND	71	ug/kg	9.3
Phenanthrene	ND	71	ug/kg	11
Anthracene	ND	71	ug/kg	6.9
Fluoranthene	ND	71	ug/kg	7.5
Pyrene	ND	71	ug/kg	7.1
Benzo(a)anthracene	ND	71	ug/kg	8.8
Chrysene	ND	71	ug/kg	8.4
Benzo(b)fluoranthene	ND	71	ug/kg	11
Benzo(k)fluoranthene	ND	71	ug/kg	14
Benzo(a)pyrene	ND	71	ug/kg	7.0
Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	7.3
Dibenzo(a,h)anthracene	ND	71	ug/kg	7.8
Benzo(ghi)perylene	ND	71	ug/kg	7.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(27 - 110)
Terphenyl-d14	71	(21 - 130)
2-Fluorobiphenyl	71	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	83	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-008	**Work Order #...:**	L5X171AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 08:53	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	16:44		
Dilution Factor:	4.97	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	37	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	53	ug/kg	4.5
Acenaphthylene	ND	53	ug/kg	6.0
Acenaphthene	ND	53	ug/kg	5.1
Fluorene	ND	53	ug/kg	6.9
Phenanthrene	ND	53	ug/kg	8.4
Anthracene	ND	53	ug/kg	5.2
Fluoranthene	ND	53	ug/kg	5.6
Pyrene	ND	53	ug/kg	5.3
Benzo(a)anthracene	ND	53	ug/kg	6.6
Chrysene	ND	53	ug/kg	6.3
Benzo(b)fluoranthene	ND	53	ug/kg	8.3
Benzo(k)fluoranthene	ND	53	ug/kg	11
Benzo(a)pyrene	ND	53	ug/kg	5.3
Indeno(1,2,3-cd)pyrene	ND	53	ug/kg	5.4
Dibenzo(a,h)anthracene	ND	53	ug/kg	5.9
Benzo(ghi)perylene	ND	53	ug/kg	5.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	113 *	(27 - 110)
Terphenyl-d14	85	(21 - 130)
2-Fluorobiphenyl	89	(28 - 108)
2-Fluorophenol	95	(28 - 107)
Phenol-d5	95	(30 - 112)
2,4,6-Tribromophenol	88	(21 - 116)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-005	**Work Order #...:**	L5X131AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 08:47	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	15:42		
Dilution Factor:	2.47	**Initial Wgt/Vol:**	30.4 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	34	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**20 J**	**25**	**ug/kg**	**2.2**
Acenaphthylene	**50**	**25**	**ug/kg**	**2.9**
Acenaphthene	**10 J**	**25**	**ug/kg**	**2.4**
Fluorene	**19 J**	**25**	**ug/kg**	**3.3**
Phenanthrene	**97**	**25**	**ug/kg**	**4.0**
Anthracene	**47**	**25**	**ug/kg**	**2.5**
Fluoranthene	**250**	**25**	**ug/kg**	**2.7**
Pyrene	**210**	**25**	**ug/kg**	**2.5**
Benzo(a)anthracene	**170**	**25**	**ug/kg**	**3.1**
Chrysene	**160**	**25**	**ug/kg**	**3.0**
Benzo(b)fluoranthene	**300**	**25**	**ug/kg**	**3.9**
Benzo(k)fluoranthene	ND	25	ug/kg	5.1
Benzo(a)pyrene	**160**	**25**	**ug/kg**	**2.5**
Indeno(1,2,3-cd)pyrene	**140**	**25**	**ug/kg**	**2.6**
Dibenzo(a,h)anthracene	**70**	**25**	**ug/kg**	**2.8**
Benzo(ghi)perylene	**150**	**25**	**ug/kg**	**2.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	67	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	72	(28 - 108)
2-Fluorophenol	57	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	86	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-002	**Work Order #...:**	L5X101AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10 16:03	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	13:59		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	63	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	92	ug/kg	7.9
Acenaphthylene	ND	92	ug/kg	10
Acenaphthene	ND	92	ug/kg	8.8
Fluorene	ND	92	ug/kg	12
Phenanthrene	ND	92	ug/kg	15
Anthracene	ND	92	ug/kg	8.9
Fluoranthene	ND	92	ug/kg	9.8
Pyrene	ND	92	ug/kg	9.2
Benzo(a)anthracene	ND	92	ug/kg	11
Chrysene	ND	92	ug/kg	11
Benzo(b)fluoranthene	ND	92	ug/kg	14
Benzo(k)fluoranthene	ND	92	ug/kg	18
Benzo(a)pyrene	ND	92	ug/kg	9.1
Indeno(1,2,3-cd)pyrene	ND	92	ug/kg	9.4
Dibenzo(a,h)anthracene	ND	92	ug/kg	10
Benzo(ghi)perylene	ND	92	ug/kg	9.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	70	(28 - 108)
2-Fluorophenol	74	(28 - 107)
Phenol-d5	71	(30 - 112)
2,4,6-Tribromophenol	72	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-003	**Work Order #...:**	L5X111AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10 16:05	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	15:01		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	65	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	96	ug/kg	8.2
Acenaphthylene	ND	96	ug/kg	11
Acenaphthene	ND	96	ug/kg	9.2
Fluorene	ND	96	ug/kg	13
Phenanthrene	ND	96	ug/kg	15
Anthracene	ND	96	ug/kg	9.3
Fluoranthene	ND	96	ug/kg	10
Pyrene	ND	96	ug/kg	9.7
Benzo(a)anthracene	ND	96	ug/kg	12
Chrysene	ND	96	ug/kg	11
Benzo(b)fluoranthene	ND	96	ug/kg	15
Benzo(k)fluoranthene	ND	96	ug/kg	19
Benzo(a)pyrene	ND	96	ug/kg	9.6
Indeno(1,2,3-cd)pyrene	ND	96	ug/kg	9.8
Dibenzo(a,h)anthracene	ND	96	ug/kg	11
Benzo(ghi)perylene	ND	96	ug/kg	9.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(27 - 110)
Terphenyl-d14	66	(21 - 130)
2-Fluorobiphenyl	70	(28 - 108)
2-Fluorophenol	65	(28 - 107)
Phenol-d5	66	(30 - 112)
2,4,6-Tribromophenol	68	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-004	**Work Order #...:**	L5X121AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10 16:07	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	15:22		
Dilution Factor:	4.97	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	64	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	94	ug/kg	8.0
Acenaphthylene	ND	94	ug/kg	11
Acenaphthene	ND	94	ug/kg	9.0
Fluorene	ND	94	ug/kg	12
Phenanthrene	ND	94	ug/kg	15
Anthracene	ND	94	ug/kg	9.1
Fluoranthene	ND	94	ug/kg	10
Pyrene	ND	94	ug/kg	9.4
Benzo(a)anthracene	ND	94	ug/kg	12
Chrysene	ND	94	ug/kg	11
Benzo(b)fluoranthene	ND	94	ug/kg	15
Benzo(k)fluoranthene	ND	94	ug/kg	19
Benzo(a)pyrene	ND	94	ug/kg	9.3
Indeno(1,2,3-cd)pyrene	ND	94	ug/kg	9.6
Dibenzo(a,h)anthracene	ND	94	ug/kg	10
Benzo(ghi)perylene	ND	94	ug/kg	9.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	70	(30 - 112)
2,4,6-Tribromophenol	58	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-001	**Work Order #...:**	L5X1V1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10 16:01	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	13:38		
Dilution Factor:	4.97	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	66	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**59 J**	**99**	**ug/kg**	**8.5**
Acenaphthylene	**17 J**	**99**	**ug/kg**	**11**
Acenaphthene	ND	99	ug/kg	9.5
Fluorene	ND	99	ug/kg	13
Phenanthrene	**110**	**99**	**ug/kg**	**16**
Anthracene	**29 J**	**99**	**ug/kg**	**9.7**
Fluoranthene	**110**	**99**	**ug/kg**	**11**
Pyrene	**90 J**	**99**	**ug/kg**	**10**
Benzo(a)anthracene	**57 J**	**99**	**ug/kg**	**12**
Chrysene	**52 J**	**99**	**ug/kg**	**12**
Benzo(b)fluoranthene	**69 J**	**99**	**ug/kg**	**16**
Benzo(k)fluoranthene	ND	99	ug/kg	20
Benzo(a)pyrene	ND	99	ug/kg	9.9
Indeno(1,2,3-cd)pyrene	**230**	**99**	**ug/kg**	**10**
Dibenzo(a,h)anthracene	ND	99	ug/kg	11
Benzo(ghi)perylene	ND	99	ug/kg	9.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	82	(27 - 110)
Terphenyl-d14	84	(21 - 130)
2-Fluorobiphenyl	78	(28 - 108)
2-Fluorophenol	74	(28 - 107)
Phenol-d5	82	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-019	**Work Order #...:**	L5X2P1AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 11:31	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	20:31		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	69	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**180**	**110**	**ug/kg**	**9.3**
Acenaphthylene	**220**	**110**	**ug/kg**	**12**
Acenaphthene	**76 J**	**110**	**ug/kg**	**10**
Fluorene	**100 J**	**110**	**ug/kg**	**14**
Phenanthrene	**600**	**110**	**ug/kg**	**17**
Anthracene	**320**	**110**	**ug/kg**	**11**
Fluoranthene	**1600**	**110**	**ug/kg**	**11**
Pyrene	**1400**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**760**	**110**	**ug/kg**	**13**
Chrysene	**930**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**1600**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**880**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**770**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**370**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**910**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	79	(28 - 108)
2-Fluorophenol	78	(28 - 107)
Phenol-d5	79	(30 - 112)
2,4,6-Tribromophenol	77	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-020	**Work Order #...:**	L5X2T1AP	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 11:33	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	20:51		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	64	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**230**	**94**	**ug/kg**	**8.1**
Acenaphthylene	**260**	**94**	**ug/kg**	**11**
Acenaphthene	**210**	**94**	**ug/kg**	**9.0**
Fluorene	**260**	**94**	**ug/kg**	**12**
Phenanthrene	**1800**	**94**	**ug/kg**	**15**
Anthracene	**670**	**94**	**ug/kg**	**9.2**
Fluoranthene	**5100**	**94**	**ug/kg**	**10**
Pyrene	**3700**	**94**	**ug/kg**	**9.5**
Benzo(a)anthracene	**2200**	**94**	**ug/kg**	**12**
Chrysene	**2200**	**94**	**ug/kg**	**11**
Benzo(b)fluoranthene	**3700**	**94**	**ug/kg**	**15**
Benzo(k)fluoranthene	ND	94	ug/kg	19
Benzo(a)pyrene	**2100**	**94**	**ug/kg**	**9.4**
Indeno(1,2,3-cd)pyrene	**1300**	**94**	**ug/kg**	**9.7**
Dibenzo(a,h)anthracene	**510**	**94**	**ug/kg**	**10**
Benzo(ghi)perylene	**1500**	**94**	**ug/kg**	**9.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65	(27 - 110)
Terphenyl-d14	57	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	62	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-021	**Work Order #...:**	L5X2W1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 11:35	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	21:12		
Dilution Factor:	4.97	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	49	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**12 J**	**66**	**ug/kg**	**5.7**
Acenaphthylene	**21 J**	**66**	**ug/kg**	**7.5**
Acenaphthene	ND	66	ug/kg	6.3
Fluorene	ND	66	ug/kg	8.6
Phenanthrene	**56 J**	**66**	**ug/kg**	**10**
Anthracene	**13 J**	**66**	**ug/kg**	**6.4**
Fluoranthene	**79**	**66**	**ug/kg**	**7.0**
Pyrene	**53 J**	**66**	**ug/kg**	**6.6**
Benzo(a)anthracene	**47 J**	**66**	**ug/kg**	**8.2**
Chrysene	**37 J**	**66**	**ug/kg**	**7.8**
Benzo(b)fluoranthene	**41 J**	**66**	**ug/kg**	**10**
Benzo(k)fluoranthene	ND	66	ug/kg	13
Benzo(a)pyrene	**30 J**	**66**	**ug/kg**	**6.6**
Indeno(1,2,3-cd)pyrene	**150**	**66**	**ug/kg**	**6.8**
Dibenzo(a,h)anthracene	ND	66	ug/kg	7.3
Benzo(ghi)perylene	ND	66	ug/kg	6.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	92	(27 - 110)
Terphenyl-d14	61	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	78	(30 - 112)
2,4,6-Tribromophenol	81	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-018	**Work Order #...:**	L5X2M1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 11:29	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	20:10		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	69	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**140**	**110**	**ug/kg**	**9.3**
Acenaphthylene	**210**	**110**	**ug/kg**	**12**
Acenaphthene	**120**	**110**	**ug/kg**	**10**
Fluorene	**100 J**	**110**	**ug/kg**	**14**
Phenanthrene	**630**	**110**	**ug/kg**	**17**
Anthracene	**320**	**110**	**ug/kg**	**11**
Fluoranthene	**1800**	**110**	**ug/kg**	**11**
Pyrene	**1500**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**890**	**110**	**ug/kg**	**13**
Chrysene	**1100**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**1700**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**920**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**800**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**370**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**880**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(27 - 110)
Terphenyl-d14	65	(21 - 130)
2-Fluorobiphenyl	75	(28 - 108)
2-Fluorophenol	61	(28 - 107)
Phenol-d5	75	(30 - 112)
2,4,6-Tribromophenol	75	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-023	**Work Order #...:**	L5X211A2	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 12:27	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	21:54		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	69	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**98 J**	**110**	**ug/kg**	**9.4**
Acenaphthylene	**140**	**110**	**ug/kg**	**12**
Acenaphthene	**56 J**	**110**	**ug/kg**	**10**
Fluorene	**59 J**	**110**	**ug/kg**	**14**
Phenanthrene	**350**	**110**	**ug/kg**	**17**
Anthracene	**200**	**110**	**ug/kg**	**11**
Fluoranthene	**850**	**110**	**ug/kg**	**12**
Pyrene	**830**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**480**	**110**	**ug/kg**	**14**
Chrysene	**510**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**880**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**520**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**540**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**290**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**610**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	54	(27 - 110)
Terphenyl-d14	38	(21 - 130)
2-Fluorobiphenyl	54	(28 - 108)
2-Fluorophenol	52	(28 - 107)
Phenol-d5	57	(30 - 112)
2,4,6-Tribromophenol	48	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-025	**Work Order #...:**	L5X261AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 12:29	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	22:35		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	67	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**210**	**100**	**ug/kg**	**8.6**
Acenaphthylene	**240**	**100**	**ug/kg**	**11**
Acenaphthene	**99 J**	**100**	**ug/kg**	**9.6**
Fluorene	**130**	**100**	**ug/kg**	**13**
Phenanthrene	**700**	**100**	**ug/kg**	**16**
Anthracene	**330**	**100**	**ug/kg**	**9.7**
Fluoranthene	**1800**	**100**	**ug/kg**	**11**
Pyrene	**1500**	**100**	**ug/kg**	**10**
Benzo(a)anthracene	**810**	**100**	**ug/kg**	**12**
Chrysene	**930**	**100**	**ug/kg**	**12**
Benzo(b)fluoranthene	**1300**	**100**	**ug/kg**	**16**
Benzo(k)fluoranthene	ND	100	ug/kg	20
Benzo(a)pyrene	**940**	**100**	**ug/kg**	**10**
Indeno(1,2,3-cd)pyrene	**840**	**100**	**ug/kg**	**10**
Dibenzo(a,h)anthracene	**250**	**100**	**ug/kg**	**11**
Benzo(ghi)perylene	**910**	**100**	**ug/kg**	**9.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	59	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	64	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	70	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-022	**Work Order #...:**	L5X201AV	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 12:25	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	21:33		
Dilution Factor:	4.95	**Initial Wgt/Vol:**	30.3 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	71	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**95 J**	**120**	**ug/kg**	**9.9**
Acenaphthylene	**110 J**	**120**	**ug/kg**	**13**
Acenaphthene	**38 J**	**120**	**ug/kg**	**11**
Fluorene	**62 J**	**120**	**ug/kg**	**15**
Phenanthrene	**270**	**120**	**ug/kg**	**18**
Anthracene	**160**	**120**	**ug/kg**	**11**
Fluoranthene	**750**	**120**	**ug/kg**	**12**
Pyrene	**670**	**120**	**ug/kg**	**12**
Benzo(a)anthracene	**390**	**120**	**ug/kg**	**14**
Chrysene	**460**	**120**	**ug/kg**	**14**
Benzo(b)fluoranthene	**760**	**120**	**ug/kg**	**18**
Benzo(k)fluoranthene	ND	120	ug/kg	23
Benzo(a)pyrene	**400**	**120**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**500**	**120**	**ug/kg**	**12**
Dibenzo(a,h)anthracene	ND	120	ug/kg	13
Benzo(ghi)perylene	**550**	**120**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(27 - 110)
Terphenyl-d14	51	(21 - 130)
2-Fluorobiphenyl	57	(28 - 108)
2-Fluorophenol	57	(28 - 107)
Phenol-d5	58	(30 - 112)
2,4,6-Tribromophenol	62	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-026	**Work Order #...:**	L5X291AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 12:31	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0237044	**Analysis Time..:**	12:32		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	52	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**23 J**	**35**	**ug/kg**	**3.0**
Acenaphthylene	**18 J**	**35**	**ug/kg**	**3.9**
Acenaphthene	ND	35	ug/kg	3.3
Fluorene	**32 J**	**35**	**ug/kg**	**4.5**
Phenanthrene	**84**	**35**	**ug/kg**	**5.5**
Anthracene	**29 J**	**35**	**ug/kg**	**3.4**
Fluoranthene	**110**	**35**	**ug/kg**	**3.7**
Pyrene	**130**	**35**	**ug/kg**	**3.5**
Benzo(a)anthracene	**72**	**35**	**ug/kg**	**4.3**
Chrysene	**58**	**35**	**ug/kg**	**4.1**
Benzo(b)fluoranthene	**75**	**35**	**ug/kg**	**5.4**
Benzo(k)fluoranthene	**49**	**35**	**ug/kg**	**7.0**
Benzo(a)pyrene	**60**	**35**	**ug/kg**	**3.4**
Indeno(1,2,3-cd)pyrene	**100**	**35**	**ug/kg**	**3.5**
Dibenzo(a,h)anthracene	ND	35	ug/kg	3.8
Benzo(ghi)perylene	**99**	**35**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	57	(27 - 110)
Terphenyl-d14	61	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	52	(28 - 107)
Phenol-d5	52	(30 - 112)
2,4,6-Tribromophenol	56	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-015	**Work Order #...:**	L5X2F1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:55	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	19:07		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	69	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**130**	**110**	**ug/kg**	**9.2**
Acenaphthylene	**160**	**110**	**ug/kg**	**12**
Acenaphthene	**59 J**	**110**	**ug/kg**	**10**
Fluorene	**77 J**	**110**	**ug/kg**	**14**
Phenanthrene	**410**	**110**	**ug/kg**	**17**
Anthracene	**210**	**110**	**ug/kg**	**10**
Fluoranthene	**1100**	**110**	**ug/kg**	**11**
Pyrene	**1100**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**560**	**110**	**ug/kg**	**13**
Chrysene	**610**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**1100**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**640**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**620**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**300**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**680**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	58	(21 - 130)
2-Fluorobiphenyl	63	(28 - 108)
2-Fluorophenol	58	(28 - 107)
Phenol-d5	65	(30 - 112)
2,4,6-Tribromophenol	67	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-016	**Work Order #...:**	L5X2H1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:57	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	19:28		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	64	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**180**	**93**	**ug/kg**	**7.9**
Acenaphthylene	**200**	**93**	**ug/kg**	**11**
Acenaphthene	**110**	**93**	**ug/kg**	**8.9**
Fluorene	**120**	**93**	**ug/kg**	**12**
Phenanthrene	**660**	**93**	**ug/kg**	**15**
Anthracene	**300**	**93**	**ug/kg**	**9.0**
Fluoranthene	**1500**	**93**	**ug/kg**	**9.9**
Pyrene	**1400**	**93**	**ug/kg**	**9.3**
Benzo(a)anthracene	**750**	**93**	**ug/kg**	**12**
Chrysene	**770**	**93**	**ug/kg**	**11**
Benzo(b)fluoranthene	**1400**	**93**	**ug/kg**	**14**
Benzo(k)fluoranthene	ND	93	ug/kg	19
Benzo(a)pyrene	**740**	**93**	**ug/kg**	**9.2**
Indeno(1,2,3-cd)pyrene	**660**	**93**	**ug/kg**	**9.5**
Dibenzo(a,h)anthracene	**310**	**93**	**ug/kg**	**10**
Benzo(ghi)perylene	**760**	**93**	**ug/kg**	**9.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	57	(28 - 107)
Phenol-d5	60	(30 - 112)
2,4,6-Tribromophenol	70	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-017	**Work Order #...:**	L5X2J1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:59	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	19:49		
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	36	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**35**	**10**	**ug/kg**	**0.90**
Acenaphthylene	**29**	**10**	**ug/kg**	**1.2**
Acenaphthene	**27**	**10**	**ug/kg**	**1.0**
Fluorene	**24**	**10**	**ug/kg**	**1.4**
Phenanthrene	**94**	**10**	**ug/kg**	**1.7**
Anthracene	**41**	**10**	**ug/kg**	**1.0**
Fluoranthene	**210**	**10**	**ug/kg**	**1.1**
Pyrene	**210**	**10**	**ug/kg**	**1.1**
Benzo(a)anthracene	**81**	**10**	**ug/kg**	**1.3**
Chrysene	**92**	**10**	**ug/kg**	**1.2**
Benzo(b)fluoranthene	**150**	**10**	**ug/kg**	**1.6**
Benzo(k)fluoranthene	ND	10	ug/kg	2.1
Benzo(a)pyrene	**81**	**10**	**ug/kg**	**1.0**
Indeno(1,2,3-cd)pyrene	**73**	**10**	**ug/kg**	**1.1**
Dibenzo(a,h)anthracene	**32**	**10**	**ug/kg**	**1.2**
Benzo(ghi)perylene	**81**	**10**	**ug/kg**	**1.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	65	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	89	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-014	**Work Order #...:**	L5X2E1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:53	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	18:47		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	76	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**100 J**	**140**	**ug/kg**	**12**
Acenaphthylene	**110 J**	**140**	**ug/kg**	**16**
Acenaphthene	**38 J**	**140**	**ug/kg**	**13**
Fluorene	**63 J**	**140**	**ug/kg**	**18**
Phenanthrene	**330**	**140**	**ug/kg**	**22**
Anthracene	**170**	**140**	**ug/kg**	**14**
Fluoranthene	**870**	**140**	**ug/kg**	**15**
Pyrene	**770**	**140**	**ug/kg**	**14**
Benzo(a)anthracene	**380**	**140**	**ug/kg**	**17**
Chrysene	**530**	**140**	**ug/kg**	**16**
Benzo(b)fluoranthene	**1100**	**140**	**ug/kg**	**22**
Benzo(k)fluoranthene	ND	140	ug/kg	28
Benzo(a)pyrene	**500**	**140**	**ug/kg**	**14**
Indeno(1,2,3-cd)pyrene	**660**	**140**	**ug/kg**	**14**
Dibenzo(a,h)anthracene	ND	140	ug/kg	15
Benzo(ghi)perylene	**730**	**140**	**ug/kg**	**14**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	91	(27 - 110)
Terphenyl-d14	76	(21 - 130)
2-Fluorobiphenyl	80	(28 - 108)
2-Fluorophenol	78	(28 - 107)
Phenol-d5	84	(30 - 112)
2,4,6-Tribromophenol	80	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-010	**Work Order #...:**	L5X191AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:05	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	17:25		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	66	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**160**	**99**	**ug/kg**	**8.5**
Acenaphthylene	**150**	**99**	**ug/kg**	**11**
Acenaphthene	**62 J**	**99**	**ug/kg**	**9.5**
Fluorene	**92 J**	**99**	**ug/kg**	**13**
Phenanthrene	**490**	**99**	**ug/kg**	**16**
Anthracene	**240**	**99**	**ug/kg**	**9.6**
Fluoranthene	**1200**	**99**	**ug/kg**	**11**
Pyrene	**1100**	**99**	**ug/kg**	**10**
Benzo(a)anthracene	**620**	**99**	**ug/kg**	**12**
Chrysene	**750**	**99**	**ug/kg**	**12**
Benzo(b)fluoranthene	**1300**	**99**	**ug/kg**	**15**
Benzo(k)fluoranthene	ND	99	ug/kg	20
Benzo(a)pyrene	**700**	**99**	**ug/kg**	**9.9**
Indeno(1,2,3-cd)pyrene	**610**	**99**	**ug/kg**	**10**
Dibenzo(a,h)anthracene	**300**	**99**	**ug/kg**	**11**
Benzo(ghi)perylene	**750**	**99**	**ug/kg**	**9.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	91	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	81	(28 - 108)
2-Fluorophenol	78	(28 - 107)
Phenol-d5	85	(30 - 112)
2,4,6-Tribromophenol	87	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-011	**Work Order #...:**	L5X2A1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:07	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	17:46		
Dilution Factor:	4.95	**Initial Wgt/Vol:**	30.3 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	65	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**160**	**94**	**ug/kg**	**8.0**
Acenaphthylene	**160**	**94**	**ug/kg**	**11**
Acenaphthene	**63 J**	**94**	**ug/kg**	**9.0**
Fluorene	**75 J**	**94**	**ug/kg**	**12**
Phenanthrene	**440**	**94**	**ug/kg**	**15**
Anthracene	**230**	**94**	**ug/kg**	**9.1**
Fluoranthene	**990**	**94**	**ug/kg**	**10**
Pyrene	**1000**	**94**	**ug/kg**	**9.4**
Benzo(a)anthracene	**560**	**94**	**ug/kg**	**12**
Chrysene	**580**	**94**	**ug/kg**	**11**
Benzo(b)fluoranthene	**1100**	**94**	**ug/kg**	**15**
Benzo(k)fluoranthene	ND	94	ug/kg	19
Benzo(a)pyrene	**570**	**94**	**ug/kg**	**9.3**
Indeno(1,2,3-cd)pyrene	**560**	**94**	**ug/kg**	**9.6**
Dibenzo(a,h)anthracene	**230**	**94**	**ug/kg**	**10**
Benzo(ghi)perylene	**600**	**94**	**ug/kg**	**9.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	58	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	72	(28 - 107)
Phenol-d5	72	(30 - 112)
2,4,6-Tribromophenol	70	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-013	**Work Order #...:**	L5X2D1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:09	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	18:27		
Dilution Factor:	2.47	**Initial Wgt/Vol:**	30.4 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	40	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**68**	**27**	**ug/kg**	**2.4**
Acenaphthylene	**58**	**27**	**ug/kg**	**3.1**
Acenaphthene	**43**	**27**	**ug/kg**	**2.6**
Fluorene	**42**	**27**	**ug/kg**	**3.6**
Phenanthrene	**180**	**27**	**ug/kg**	**4.4**
Anthracene	**80**	**27**	**ug/kg**	**2.7**
Fluoranthene	**430**	**27**	**ug/kg**	**2.9**
Pyrene	**370**	**27**	**ug/kg**	**2.8**
Benzo(a)anthracene	**190**	**27**	**ug/kg**	**3.4**
Chrysene	**190**	**27**	**ug/kg**	**3.3**
Benzo(b)fluoranthene	**310**	**27**	**ug/kg**	**4.3**
Benzo(k)fluoranthene	ND	27	ug/kg	5.5
Benzo(a)pyrene	**170**	**27**	**ug/kg**	**2.7**
Indeno(1,2,3-cd)pyrene	**160**	**27**	**ug/kg**	**2.8**
Dibenzo(a,h)anthracene	**83**	**27**	**ug/kg**	**3.0**
Benzo(ghi)perylene	**170**	**27**	**ug/kg**	**2.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(27 - 110)
Terphenyl-d14	77	(21 - 130)
2-Fluorobiphenyl	87	(28 - 108)
2-Fluorophenol	78	(28 - 107)
Phenol-d5	81	(30 - 112)
2,4,6-Tribromophenol	79	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-009	**Work Order #...:**	L5X181AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 10:03	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	17:05		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	70	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**92 J**	**110**	**ug/kg**	**9.6**
Acenaphthylene	**100 J**	**110**	**ug/kg**	**13**
Acenaphthene	**38 J**	**110**	**ug/kg**	**11**
Fluorene	**60 J**	**110**	**ug/kg**	**15**
Phenanthrene	**260**	**110**	**ug/kg**	**18**
Anthracene	**170**	**110**	**ug/kg**	**11**
Fluoranthene	**660**	**110**	**ug/kg**	**12**
Pyrene	**690**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**300**	**110**	**ug/kg**	**14**
Chrysene	**430**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**820**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**400**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**480**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**250**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**530**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	84	(27 - 110)
Terphenyl-d14	68	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	64	(30 - 112)
2,4,6-Tribromophenol	74	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-028	**Work Order #...:**	L5X3D1AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 14:37	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	23:17		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	59	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	82	ug/kg	7.0
Acenaphthylene	ND	82	ug/kg	9.4
Acenaphthene	ND	82	ug/kg	7.9
Fluorene	ND	82	ug/kg	11
Phenanthrene	ND	82	ug/kg	13
Anthracene	ND	82	ug/kg	8.0
Fluoranthene	ND	82	ug/kg	8.7
Pyrene	ND	82	ug/kg	8.3
Benzo(a)anthracene	ND	82	ug/kg	10
Chrysene	ND	82	ug/kg	9.7
Benzo(b)fluoranthene	ND	82	ug/kg	13
Benzo(k)fluoranthene	ND	82	ug/kg	17
Benzo(a)pyrene	ND	82	ug/kg	8.2
Indeno(1,2,3-cd)pyrene	ND	82	ug/kg	8.4
Dibenzo(a,h)anthracene	ND	82	ug/kg	9.1
Benzo(ghi)perylene	ND	82	ug/kg	8.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	57	(21 - 130)
2-Fluorobiphenyl	68	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	70	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-029	**Work Order #...:**	L5X3F1AP	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 14:39	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	23:38		
Dilution Factor:	4.95	**Initial Wgt/Vol:**	30.3 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	62	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	88	ug/kg	7.5
Acenaphthylene	ND	88	ug/kg	10
Acenaphthene	ND	88	ug/kg	8.4
Fluorene	ND	88	ug/kg	11
Phenanthrene	ND	88	ug/kg	14
Anthracene	ND	88	ug/kg	8.5
Fluoranthene	ND	88	ug/kg	9.3
Pyrene	ND	88	ug/kg	8.8
Benzo(a)anthracene	ND	88	ug/kg	11
Chrysene	ND	88	ug/kg	10
Benzo(b)fluoranthene	ND	88	ug/kg	14
Benzo(k)fluoranthene	ND	88	ug/kg	18
Benzo(a)pyrene	ND	88	ug/kg	8.7
Indeno(1,2,3-cd)pyrene	ND	88	ug/kg	9.0
Dibenzo(a,h)anthracene	ND	88	ug/kg	9.7
Benzo(ghi)perylene	ND	88	ug/kg	8.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	62	(21 - 130)
2-Fluorobiphenyl	62	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	60	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-030	**Work Order #...:**	L5X3G1AG	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 14:41	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237044	**Analysis Time..:**	13:42		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	58	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	40	ug/kg	3.4
Acenaphthylene	ND	40	ug/kg	4.5
Acenaphthene	ND	40	ug/kg	3.8
Fluorene	ND	40	ug/kg	5.2
Phenanthrene	**6.7 J**	**40**	**ug/kg**	**6.3**
Anthracene	ND	40	ug/kg	3.9
Fluoranthene	**4.2 J**	**40**	**ug/kg**	**4.2**
Pyrene	ND	40	ug/kg	4.0
Benzo(a)anthracene	ND	40	ug/kg	5.0
Chrysene	ND	40	ug/kg	4.7
Benzo(b)fluoranthene	ND	40	ug/kg	6.2
Benzo(k)fluoranthene	ND	40	ug/kg	8.0
Benzo(a)pyrene	ND	40	ug/kg	4.0
Indeno(1,2,3-cd)pyrene	ND	40	ug/kg	4.1
Dibenzo(a,h)anthracene	ND	40	ug/kg	4.4
Benzo(ghi)perylene	ND	40	ug/kg	3.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(27 - 110)
Terphenyl-d14	80	(21 - 130)
2-Fluorobiphenyl	79	(28 - 108)
2-Fluorophenol	80	(28 - 107)
Phenol-d5	85	(30 - 112)
2,4,6-Tribromophenol	90	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-027	**Work Order #...:**	L5X3A1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 14:35	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	22:56		
Dilution Factor:	4.97	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	62	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	87	ug/kg	7.5
Acenaphthylene	ND	87	ug/kg	9.9
Acenaphthene	ND	87	ug/kg	8.3
Fluorene	ND	87	ug/kg	11
Phenanthrene	ND	87	ug/kg	14
Anthracene	ND	87	ug/kg	8.5
Fluoranthene	ND	87	ug/kg	9.3
Pyrene	ND	87	ug/kg	8.8
Benzo(a)anthracene	ND	87	ug/kg	11
Chrysene	ND	87	ug/kg	10
Benzo(b)fluoranthene	ND	87	ug/kg	14
Benzo(k)fluoranthene	ND	87	ug/kg	18
Benzo(a)pyrene	ND	87	ug/kg	8.7
Indeno(1,2,3-cd)pyrene	ND	87	ug/kg	8.9
Dibenzo(a,h)anthracene	ND	87	ug/kg	9.6
Benzo(ghi)perylene	ND	87	ug/kg	8.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	61	(27 - 110)
Terphenyl-d14	48	(21 - 130)
2-Fluorobiphenyl	57	(28 - 108)
2-Fluorophenol	51	(28 - 107)
Phenol-d5	54	(30 - 112)
2,4,6-Tribromophenol	54	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP4-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-012	**Work Order #...:**	L5X2C1AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 12:00	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237021
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237043	**Analysis Time..:**	18:06		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	49	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	65	ug/kg	5.6
Acenaphthylene	ND	65	ug/kg	7.4
Acenaphthene	ND	65	ug/kg	6.2
Fluorene	ND	65	ug/kg	8.6
Phenanthrene	ND	65	ug/kg	10
Anthracene	ND	65	ug/kg	6.4
Fluoranthene	ND	65	ug/kg	7.0
Pyrene	ND	65	ug/kg	6.6
Benzo(a)anthracene	ND	65	ug/kg	8.1
Chrysene	ND	65	ug/kg	7.7
Benzo(b)fluoranthene	ND	65	ug/kg	10
Benzo(k)fluoranthene	ND	65	ug/kg	13
Benzo(a)pyrene	ND	65	ug/kg	6.5
Indeno(1,2,3-cd)pyrene	ND	65	ug/kg	6.7
Dibenzo(a,h)anthracene	ND	65	ug/kg	7.2
Benzo(ghi)perylene	ND	65	ug/kg	6.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	94	(27 - 110)
Terphenyl-d14	74	(21 - 130)
2-Fluorobiphenyl	89	(28 - 108)
2-Fluorophenol	84	(28 - 107)
Phenol-d5	90	(30 - 112)
2,4,6-Tribromophenol	100	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP5-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-024	**Work Order #...:**	L5X241AC	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 16:15	**Date Received..:**	08/20/10 10:00	**MS Run #.....:**	0237022
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237044	**Analysis Time..:**	22:14		
Dilution Factor:	5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	68	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**120**	**100**	**ug/kg**	**8.9**
Acenaphthylene	**130**	**100**	**ug/kg**	**12**
Acenaphthene	**55 J**	**100**	**ug/kg**	**9.9**
Fluorene	**61 J**	**100**	**ug/kg**	**14**
Phenanthrene	**380**	**100**	**ug/kg**	**16**
Anthracene	**210**	**100**	**ug/kg**	**10**
Fluoranthene	**960**	**100**	**ug/kg**	**11**
Pyrene	**890**	**100**	**ug/kg**	**10**
Benzo(a)anthracene	**510**	**100**	**ug/kg**	**13**
Chrysene	**500**	**100**	**ug/kg**	**12**
Benzo(b)fluoranthene	**900**	**100**	**ug/kg**	**16**
Benzo(k)fluoranthene	ND	100	ug/kg	21
Benzo(a)pyrene	**510**	**100**	**ug/kg**	**10**
Indeno(1,2,3-cd)pyrene	**540**	**100**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**270**	**100**	**ug/kg**	**12**
Benzo(ghi)perylene	**600**	**100**	**ug/kg**	**10**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	59	(27 - 110)
Terphenyl-d14	54	(21 - 130)
2-Fluorobiphenyl	55	(28 - 108)
2-Fluorophenol	53	(28 - 107)
Phenol-d5	58	(30 - 112)
2,4,6-Tribromophenol	68	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-006	**Work Order #...:**	L5X151AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	21:14		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.4 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	60	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	3.0
Aroclor 1221	ND	20	ug/kg	3.9
Aroclor 1232	ND	20	ug/kg	3.5
Aroclor 1242	ND	20	ug/kg	3.3
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.9
Aroclor 1260	ND	20	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 140)
Decachlorobiphenyl	79	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-02

GC Semivolatiles

Lot-Sample #...: C0H200635-007	**Work Order #...:** L5X161AD	**Matrix.....:** SOLID
Date Sampled...: 08/19/10	**Date Received..:** 08/20/10	**MS Run #.....:** 0237023
Prep Date.....: 08/25/10	**Analysis Date..:** 08/31/10	
Prep Batch #...: 0237058	**Analysis Time..:** 21:34	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 53	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	18	ug/kg	2.6
Aroclor 1221	ND	18	ug/kg	3.4
Aroclor 1232	ND	18	ug/kg	3.0
Aroclor 1242	ND	18	ug/kg	2.9
Aroclor 1248	ND	18	ug/kg	1.7
Aroclor 1254	ND	18	ug/kg	2.5
Aroclor 1260	ND	18	ug/kg	2.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-008	**Work Order #...:**	L5X171AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	21:55		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.3 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	37	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	13	ug/kg	1.9
Aroclor 1221	ND	13	ug/kg	2.5
Aroclor 1232	ND	13	ug/kg	2.2
Aroclor 1242	ND	13	ug/kg	2.1
Aroclor 1248	ND	13	ug/kg	1.2
Aroclor 1254	ND	13	ug/kg	1.8
Aroclor 1260	ND	13	ug/kg	1.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 140)
Decachlorobiphenyl	84	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-005	**Work Order #...:**	L5X131AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	20:13		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	34	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	13	ug/kg	1.9
Aroclor 1221	ND	13	ug/kg	2.4
Aroclor 1232	ND	13	ug/kg	2.2
Aroclor 1242	ND	13	ug/kg	2.1
Aroclor 1248	ND	13	ug/kg	1.2
Aroclor 1254	ND	13	ug/kg	1.8
Aroclor 1260	**99**	**13**	**ug/kg**	**1.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 140)
Decachlorobiphenyl	76	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-01

GC Semivolatiles

Lot-Sample #...: C0H200635-002	**Work Order #...:** L5X101AD	**Matrix.....:** SOLID
Date Sampled...: 08/18/10	**Date Received..:** 08/20/10	**MS Run #.....:** 0237023
Prep Date.....: 08/25/10	**Analysis Date..:** 08/31/10	
Prep Batch #...: 0237058	**Analysis Time..:** 19:12	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 63	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.3
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.7
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.2
Aroclor 1260	ND	23	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 140)
Decachlorobiphenyl	82	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-02

GC Semivolatiles

Lot-Sample #...:	C0H200635-003	**Work Order #...:**	L5X111AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	19:32		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	65	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.5
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.1
Aroclor 1242	ND	24	ug/kg	3.9
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	ND	24	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 140)
Decachlorobiphenyl	82	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-004	**Work Order #...:**	L5X121AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	19:52		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	64	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.4
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.7
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.3
Aroclor 1260	ND	23	ug/kg	3.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(35 - 140)
Decachlorobiphenyl	75	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-001	**Work Order #...:**	L5X1V1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/18/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	18:51		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	66	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.6
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.2
Aroclor 1242	ND	24	ug/kg	4.0
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.5
Aroclor 1260	ND	24	ug/kg	3.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	89	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-019	**Work Order #...:**	L5X2P1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	03:00		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	69	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	27	ug/kg	4.0
Aroclor 1221	ND	27	ug/kg	5.1
Aroclor 1232	ND	27	ug/kg	4.6
Aroclor 1242	ND	27	ug/kg	4.4
Aroclor 1248	ND	27	ug/kg	2.5
Aroclor 1254	ND	27	ug/kg	3.8
Aroclor 1260	**1800**	**27**	**ug/kg**	**3.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	90	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

GC Semivolatiles

Lot-Sample #...:	C0H200635-020	**Work Order #...:**	L5X2T1AQ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	03:20		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	64	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.5
Aroclor 1221	ND	23	ug/kg	4.5
Aroclor 1232	ND	23	ug/kg	4.0
Aroclor 1242	ND	23	ug/kg	3.8
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.3
Aroclor 1260	**220**	**23**	**ug/kg**	**3.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	115	(35 - 140)
Decachlorobiphenyl	119	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-021	**Work Order #...:**	L5X2W1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	03:41		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	49	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	16	ug/kg	2.5
Aroclor 1221	ND	16	ug/kg	3.1
Aroclor 1232	ND	16	ug/kg	2.8
Aroclor 1242	ND	16	ug/kg	2.7
Aroclor 1248	ND	16	ug/kg	1.6
Aroclor 1254	ND	16	ug/kg	2.3
Aroclor 1260	ND	16	ug/kg	2.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-018	**Work Order #...:**	L5X2M1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	02:40		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.3 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	69	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.3
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**6600**	**26**	**ug/kg**	**3.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	104	(35 - 140)
Decachlorobiphenyl	105	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-023	**Work Order #...:**	L5X211A3	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	04:21		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	69	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	27	ug/kg	4.0
Aroclor 1221	ND	27	ug/kg	5.1
Aroclor 1232	ND	27	ug/kg	4.6
Aroclor 1242	ND	27	ug/kg	4.3
Aroclor 1248	ND	27	ug/kg	2.5
Aroclor 1254	ND	27	ug/kg	3.8
Aroclor 1260	**1500**	**27**	**ug/kg**	**3.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	82	(35 - 140)
Decachlorobiphenyl	70	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-02

GC Semivolatiles

Lot-Sample #...:	C0H200635-025	**Work Order #...:**	L5X261AE	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	05:02		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	67	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.7
Aroclor 1221	ND	25	ug/kg	4.7
Aroclor 1232	ND	25	ug/kg	4.3
Aroclor 1242	ND	25	ug/kg	4.1
Aroclor 1248	ND	25	ug/kg	2.4
Aroclor 1254	ND	25	ug/kg	3.5
Aroclor 1260	**1300**	**25**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	99	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-026	**Work Order #...:**	L5X291AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	05:23		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	52	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	17	ug/kg	2.6
Aroclor 1221	ND	17	ug/kg	3.3
Aroclor 1232	ND	17	ug/kg	2.9
Aroclor 1242	ND	17	ug/kg	2.8
Aroclor 1248	ND	17	ug/kg	1.6
Aroclor 1254	ND	17	ug/kg	2.4
Aroclor 1260	**15 J**	**17**	**ug/kg**	**2.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	88	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-022	**Work Order #...:**	L5X201AW	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	04:01		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	71	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	29	ug/kg	4.3
Aroclor 1221	ND	29	ug/kg	5.5
Aroclor 1232	ND	29	ug/kg	5.0
Aroclor 1242	ND	29	ug/kg	4.7
Aroclor 1248	ND	29	ug/kg	2.7
Aroclor 1254	ND	29	ug/kg	4.1
Aroclor 1260	**1800**	**29**	**ug/kg**	**4.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-015	**Work Order #...:**	L5X2F1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	00:17		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	69	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.2
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**1900**	**26**	**ug/kg**	**3.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	79	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-02

GC Semivolatiles

Lot-Sample #...:	C0H200635-016	**Work Order #...:**	L5X2H1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	01:59		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	64	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.4
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.8
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.3
Aroclor 1260	**770**	**23**	**ug/kg**	**3.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 140)
Decachlorobiphenyl	88	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-017	**Work Order #...:**	L5X2J1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	10:04		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	36	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	13	ug/kg	1.9
Aroclor 1221	ND	13	ug/kg	2.5
Aroclor 1232	ND	13	ug/kg	2.2
Aroclor 1242	ND	13	ug/kg	2.1
Aroclor 1248	ND	13	ug/kg	1.2
Aroclor 1254	ND	13	ug/kg	1.9
Aroclor 1260	**11 J**	**13**	**ug/kg**	**1.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	103	(35 - 140)
Decachlorobiphenyl	102	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-014	**Work Order #...:**	L5X2E1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237058	**Analysis Time..:**	09:44		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	76	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	35	ug/kg	5.1
Aroclor 1221	ND	35	ug/kg	6.6
Aroclor 1232	ND	35	ug/kg	5.9
Aroclor 1242	ND	35	ug/kg	5.6
Aroclor 1248	ND	35	ug/kg	3.3
Aroclor 1254	ND	35	ug/kg	4.9
Aroclor 1260	**1800**	**35**	**ug/kg**	**4.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 140)
Decachlorobiphenyl	85	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-010	**Work Order #...:**	L5X191AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	22:35		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	66	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.7
Aroclor 1221	ND	25	ug/kg	4.7
Aroclor 1232	ND	25	ug/kg	4.2
Aroclor 1242	ND	25	ug/kg	4.0
Aroclor 1248	ND	25	ug/kg	2.3
Aroclor 1254	ND	25	ug/kg	3.5
Aroclor 1260	**920**	**25**	**ug/kg**	**3.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(35 - 140)
Decachlorobiphenyl	80	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-02

GC Semivolatiles

Lot-Sample #...:	C0H200635-011	**Work Order #...:**	L5X2A1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	22:56		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	65	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.5
Aroclor 1221	ND	24	ug/kg	4.5
Aroclor 1232	ND	24	ug/kg	4.0
Aroclor 1242	ND	24	ug/kg	3.8
Aroclor 1248	ND	24	ug/kg	2.2
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	**880**	**24**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	71	(35 - 140)
Decachlorobiphenyl	65	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-013	**Work Order #...:**	L5X2D1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	23:36		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	40	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.1
Aroclor 1221	ND	14	ug/kg	2.6
Aroclor 1232	ND	14	ug/kg	2.4
Aroclor 1242	ND	14	ug/kg	2.3
Aroclor 1248	ND	14	ug/kg	1.3
Aroclor 1254	ND	14	ug/kg	2.0
Aroclor 1260	**27**	**14**	**ug/kg**	**2.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(35 - 140)
Decachlorobiphenyl	90	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-009	**Work Order #...:**	L5X181AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237023
Prep Date.....:	08/25/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0237058	**Analysis Time..:**	22:15		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	70	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	27	ug/kg	4.0
Aroclor 1221	ND	27	ug/kg	5.2
Aroclor 1232	ND	27	ug/kg	4.7
Aroclor 1242	ND	27	ug/kg	4.4
Aroclor 1248	ND	27	ug/kg	2.6
Aroclor 1254	ND	27	ug/kg	3.9
Aroclor 1260	**2700**	**27**	**ug/kg**	**3.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	90	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-028	**Work Order #...:**	L5X3D1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	06:03		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.3 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	59	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	3.0
Aroclor 1221	ND	20	ug/kg	3.8
Aroclor 1232	ND	20	ug/kg	3.4
Aroclor 1242	ND	20	ug/kg	3.3
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.8
Aroclor 1260	ND	20	ug/kg	2.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(35 - 140)
Decachlorobiphenyl	75	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-02

GC Semivolatiles

Lot-Sample #...: C0H200635-029	**Work Order #...:** L5X3F1AQ	**Matrix.....:** SOLID
Date Sampled...: 08/19/10	**Date Received..:** 08/20/10	**MS Run #.....:** 0237024
Prep Date.....: 08/25/10	**Analysis Date..:** 09/01/10	
Prep Batch #...: 0237062	**Analysis Time..:** 06:24	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 62	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.2
Aroclor 1232	ND	22	ug/kg	3.8
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.1
Aroclor 1260	ND	22	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(35 - 140)
Decachlorobiphenyl	76	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-04

GC Semivolatiles

Lot-Sample #...:	C0H200635-030	Work Order #...:	L5X3G1AH	Matrix.....:	SOLID
Date Sampled...:	08/19/10	Date Received..:	08/20/10	MS Run #.....:	0237024
Prep Date.....:	08/25/10	Analysis Date..:	09/01/10		
Prep Batch #...:	0237062	Analysis Time..:	07:25		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	58	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	20	ug/kg	2.9
Aroclor 1221	ND	20	ug/kg	3.8
Aroclor 1232	ND	20	ug/kg	3.4
Aroclor 1242	ND	20	ug/kg	3.2
Aroclor 1248	ND	20	ug/kg	1.9
Aroclor 1254	ND	20	ug/kg	2.8
Aroclor 1260	ND	20	ug/kg	2.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	87	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-027	**Work Order #...:**	L5X3A1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	05:43		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	62	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	21	ug/kg	3.2
Aroclor 1221	ND	21	ug/kg	4.1
Aroclor 1232	ND	21	ug/kg	3.7
Aroclor 1242	ND	21	ug/kg	3.5
Aroclor 1248	ND	21	ug/kg	2.0
Aroclor 1254	ND	21	ug/kg	3.0
Aroclor 1260	**14 J**	**21**	**ug/kg**	**3.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	87	(35 - 140)
Decachlorobiphenyl	78	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP4-02

GC Semivolatiles

Lot-Sample #...: C0H200635-012	**Work Order #...:** L5X2C1AD	**Matrix.....:** SOLID
Date Sampled...: 08/19/10	**Date Received..:** 08/20/10	**MS Run #.....:** 0237023
Prep Date.....: 08/25/10	**Analysis Date..:** 08/31/10	
Prep Batch #...: 0237058	**Analysis Time..:** 23:16	
Dilution Factor: 0.5	**Initial Wgt/Vol:** 15.1 g	**Final Wgt/Vol..:** 10 mL
% Moisture.....: 49	**Analyst ID.....:** 402360	**Instrument ID..:** S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	16	ug/kg	2.4
Aroclor 1221	ND	16	ug/kg	3.1
Aroclor 1232	ND	16	ug/kg	2.8
Aroclor 1242	ND	16	ug/kg	2.6
Aroclor 1248	ND	16	ug/kg	1.5
Aroclor 1254	ND	16	ug/kg	2.3
Aroclor 1260	ND	16	ug/kg	2.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 140)
Decachlorobiphenyl	75	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP5-01

GC Semivolatiles

Lot-Sample #...:	C0H200635-024	**Work Order #...:**	L5X241AD	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/20/10	**MS Run #.....:**	0237024
Prep Date.....:	08/25/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0237062	**Analysis Time..:**	04:42		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	68	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.8
Aroclor 1221	ND	26	ug/kg	4.9
Aroclor 1232	ND	26	ug/kg	4.4
Aroclor 1242	ND	26	ug/kg	4.2
Aroclor 1248	ND	26	ug/kg	2.4
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**1800**	**26**	**ug/kg**	**3.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	86	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

APPENDIX C

SUPPORT DOCUMENTATION

COH200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TeTra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154238
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 1 of 3
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Appavaje	Lab Contact:	
Project Name and Location (State): MRC Sed. Samp. Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis: PP metals	PAHs	PCBs
SD-106-SS	8/18/10	1601			X		X						X	X	X
SD-106-01	↓	1603			↓		↓						X	X	X
SD-106-02	↓	1605											X	X	X
SD-106-04	8/18/10	1607											X	X	X
SD-100-SS	8/19/10	0847											X	X	X
SD-100-01	↓	0849											X	X	X
SD-100-02		0851											X	X	X
SD-100-04		0853											X	X	X
SD-98-SS		1003											X	X	X
SD-98-01		1005											X	X	X
SD-98-02	↓	1007			↓		↓						X	X	X
SD-DUP-02	8/19/10	1200			X		X						X	X	X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

		Date	Time
1. Relinquished By		8/19/10	1530
2. Relinquished By	Paul Hayward	8/19/10	1620
3. Relinquished By			
1. Received By	Paul Hayward	8/19/10	1530
2. Received By			
3. Received By		8/20/10	1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

C0H200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141296
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 3015283022 3015283000	Lab Number:	Page 2 of 3
City: GERMANTOWN	State: MD	Zip Code:	Site Contact: Tony Aparnavage
Lab Contact:	Project Name and Location (State): MRC SEDIMENT SAMPLING MIDDLE RIVER, MD	Carrier/Waybill Number:	Contract/Purchase Order/Quote No.:

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Pyrethroids	PAH	PCB	TOC	AVS/SEM
SD-98-04	8/19/10	1009			X		X						X	X	X		
SD-96-SS		1053											X	X	X		
SD-96-01		1055											X	X	X		
SD-96-02		1057											X	X	X		
SD-96-04		1059											X	X	X		
SD-88-SS		1129											X	X	X	X	X
SD-88-01		1131											X	X	X	X	X
SD-88-02		1133											X	X	X	X	X
SD-88-04		1135											X	X	X	[redacted]	X
SD-89-SS		1225											X	X	X	X	X
SD-89-01		1227											X	X	X	X	X
SD-DUP5-01	8/19/10	1615			X		X						X	X	X		

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date: 8/19/10	Time: 1530	1. Received By	Date: 8/19/10	Time: 1530
2. Relinquished By	Date: 8/19/10	Time: 1620	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/20/10	Time: 1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

COH200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154237
Address: 20251 Century Blvd suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 · 301-528-3000	Lab Number:	Page 3 of 3
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Appenzage	Lab Contact:	
Project Name and Location (State): MRC Sed. Samp. Middle River MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	TOC	AVS/SEM
SD-89-02	8/19/10	1229			X		X						X	X	X	X	X
SD-89-04		1231											X	X	X		X
SD-99-SS		1435											X	X	X	X	X
SD-99-01		1437											X	X	X	X	X
SD-99-02		1439											X	X	X	X	X
SD-99-04	8/19/10	1441			X		X						X	X	X		X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By	8/19/10	1620	2. Received By		
3. Relinquished By			3. Received By	8/20/10	1033

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

HOLDTIME

SDG C0H200635

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
AVS	UMOLE	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
SEM	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SEM	UMOLE	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/03/2010	13	2	15
HG	MG/KG	SD-106-02	C0H200635003	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-96-01	C0H200635015	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-04	C0H200635026	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-96-02	C0H200635016	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-01	C0H200635002	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-96-04	C0H200635017	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-01	C0H200635010	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-02	C0H200635011	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-04	C0H200635004	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-04	C0H200635008	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-04	C0H200635030	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-01	C0H200635006	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-02	C0H200635007	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-04	C0H200635013	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
M	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-04	C0H200635017	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-01	C0H200635006	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-02	C0H200635007	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-04	C0H200635008	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-106-01	C0H200635002	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-106-02	C0H200635003	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-106-04	C0H200635004	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-98-01	C0H200635010	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-02	C0H200635016	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-04	C0H200635013	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-02	C0H200635011	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/05/2010	13	4	17
M	MG/KG	SD-96-01	C0H200635015	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
TOC	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TOC	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
TOC	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
TOC	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
SIM	UG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-02	C0H200635025	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-01	C0H200635023	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-SS	C0H200635018	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-04	C0H200635021	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-02	C0H200635020	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-SS	C0H200635022	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-88-01	C0H200635019	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-106-SS	C0H200635001	SUR	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-88-04	C0H200635021	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-04	C0H200635017	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-02	C0H200635011	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-02	C0H200635011	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-01	C0H200635010	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-01	C0H200635010	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-SS	C0H200635014	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-04	C0H200635026	SUR	08/19/2010	08/25/2010	08/27/2010	6	2	8
SIM	UG/KG	SD-96-04	C0H200635017	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-04	C0H200635026	NM	08/19/2010	08/25/2010	08/27/2010	6	2	8
SIM	UG/KG	SD-96-02	C0H200635016	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-02	C0H200635016	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-01	C0H200635015	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-01	C0H200635015	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-106-02	C0H200635003	SUR	08/18/2010	08/25/2010	08/26/2010	7	1	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-04	C0H200635013	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-DUP5-01	C0H200635024	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-DUP4-02	C0H200635012	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-SS	C0H200635027	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-04	C0H200635030	SUR	08/19/2010	08/25/2010	08/31/2010	6	6	12
SIM	UG/KG	SD-99-04	C0H200635030	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
SIM	UG/KG	SD-99-02	C0H200635029	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-01	C0H200635028	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-106-04	C0H200635004	SUR	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-98-SS	C0H200635009	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-04	C0H200635008	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	SD-106-04	C0H200635004	NM	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-106-02	C0H200635003	NM	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-106-01	C0H200635002	SUR	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-106-01	C0H200635002	NM	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-100-SS	C0H200635005	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-04	C0H200635008	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	08/25/2010	08/26/2010	7	1	8
SIM	UG/KG	SD-100-02	C0H200635007	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-02	C0H200635007	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-01	C0H200635006	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-01	C0H200635006	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-98-04	C0H200635013	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
PCB	UG/KG	SD-98-01	C0H200635010	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-99-04	C0H200635030	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-98-04	C0H200635013	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-98-02	C0H200635011	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-96-02	C0H200635016	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-96-01	C0H200635015	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-96-04	C0H200635017	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-89-04	C0H200635026	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-100-01	C0H200635006	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-88-04	C0H200635021	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13
PCB	UG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	08/25/2010	08/31/2010	7	6	13
PCB	UG/KG	SD-106-04	C0H200635004	NM	08/18/2010	08/25/2010	08/31/2010	7	6	13
PCB	UG/KG	SD-106-02	C0H200635003	NM	08/18/2010	08/25/2010	08/31/2010	7	6	13
PCB	UG/KG	SD-106-01	C0H200635002	NM	08/18/2010	08/25/2010	08/31/2010	7	6	13
PCB	UG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-100-04	C0H200635008	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-100-02	C0H200635007	NM	08/19/2010	08/25/2010	08/31/2010	6	6	12
PCB	UG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/25/2010	09/01/2010	6	7	13

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H200635

FRACTION	CHEMICAL	SD-96-01	UNITS	SD-DUP5-01	RPD	D
PAH	ACENAPHTHENE	59 J	UG/KG	55 J	7.02	4.00
PAH	ACENAPHTHYLENE	160	UG/KG	130	20.69	30.00
PAH	ANTHRACENE	210	UG/KG	210	0.00	0.00
PAH	BENZO(A)ANTHRACENE	560	UG/KG	510	9.35	50.00
PAH	BENZO(A)PYRENE	640	UG/KG	510	22.61	130.00
PAH	BENZO(B)FLUORANTHENE	1100	UG/KG	900	20.00	200.00
PAH	BENZO(G,H,I)PERYLENE	680	UG/KG	600	12.50	80.00
PAH	CHRYSENE	610	UG/KG	500	19.82	110.00
PAH	DIBENZO(A,H)ANTHRACENE	300	UG/KG	270	10.53	30.00
PAH	FLUORANTHENE	1100	UG/KG	960	13.59	140.00
PAH	FLUORENE	77 J	UG/KG	61 J	23.19	16.00
PAH	INDENO(1,2,3-CD)PYRENE	620	UG/KG	540	13.79	80.00
PAH	NAPHTHALENE	130	UG/KG	120	8.00	10.00
PAH	PHENANTHRENE	410	UG/KG	380	7.59	30.00
PAH	PYRENE	1100	UG/KG	890	21.11	210.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H200635

FRACTION	CHEMICAL	SD-96-01	UNITS	SD-DUP5-01	RPD	D
PEST/PCB	AROCLOR-1260	1900	UG/KG	1800	5.41	100.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Tetra Tech Middle River, MD

Lot #: C0H200635

Mike Martin

Tetra Tech NUS Inc
Foster Plaza VII
661 Anderson Drive
Pittsburgh, PA 15220-2745

TESTAMERICA LABORATORIES, INC.

Veronica Bortot
Project Manager

September 15, 2010

NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
DoD ELAP	ADE-1442	WW HW	X
US Dept of Agriculture	(#P330-10-00139)	Foreign Soil Import Permit	X
Arkansas	(#88-0690)	WW HW	X X
California – NELAC	04224CA	WW HW	X X
Connecticut	(#PH-0688)	WW HW	X X
Florida – NELAC	(#E871008)	WW HW	X X
Illinois – NELAC	(#002319)	WW HW	X X
Kansas – NELAC	(#E-10350)	WW HW	X X
Louisiana – NELAC	(#04041)	WW HW	X X
New Hampshire – NELAC	(#203010)	WW --	X --
New Jersey – NELAC	(PA-005)	WW HW	X X
New York – NELAC	(#11182)	WW HW	X X
North Carolina	(#434)	WW HW	X X
Pennsylvania - NELAC	(#02-00416)	WW HW	X X
South Carolina	(#89014002)	WW HW	X X
Utah – NELAC	(STLP)	WW HW	X X
West Virginia	(#142)	WW HW	X X
Wisconsin	998027800	WW HW	X X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 05/19/10 N:\Reporting\NELAC NARRATIVE Pttsburgh_Updated 051910.doc

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H200635

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 20, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

Several samples were analyzed at a dilution due to matrix interference and/or concentration of compounds detected.

Sample SD-100-01 had nitrobenzene-d5 surrogate recover above the control limit.

PCBs:
There were no problems associated with the analysis.

Metals:
The serial dilution percent difference was outside the control limit for cadmium, and antimony for sample SD-106-SS.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spikes of sample SD-106-SS recovered below the control limit for antimony, arsenic, beryllium, copper, and selenium. The matrix spike duplicate recovered below the control limit for cadmium, chromium, nickel, silver and zinc.

For the matrix spikes of sample SD-106-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H200635

Metals (cont):
For the matrix spikes of sample SD-88-04, arsenic, lead, thallium, and zinc recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

The matrix spikes of sample SD-88-04 recovered below the control limit for antimony, cadmium, copper, nickel and selenium.

General Chemistry:
There were no problems associated with the analysis.

METHODS SUMMARY

C0H200635

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H200635

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5X1V	001	SD-106-SS	08/18/10	16:01
L5X10	002	SD-106-01	08/18/10	16:03
L5X11	003	SD-106-02	08/18/10	16:05
L5X12	004	SD-106-04	08/18/10	16:07
L5X13	005	SD-100-SS	08/19/10	08:47
L5X15	006	SD-100-01	08/19/10	08:49
L5X16	007	SD-100-02	08/19/10	08:51
L5X17	008	SD-100-04	08/19/10	08:53
L5X18	009	SD-98-SS	08/19/10	10:03
L5X19	010	SD-98-01	08/19/10	10:05
L5X2A	011	SD-98-02	08/19/10	10:07
L5X2C	012	SD-DUP4-02	08/19/10	12:00
L5X2D	013	SD-98-04	08/19/10	10:09
L5X2E	014	SD-96-SS	08/19/10	10:53
L5X2F	015	SD-96-01	08/19/10	10:55
L5X2H	016	SD-96-02	08/19/10	10:57
L5X2J	017	SD-96-04	08/19/10	10:59
L5X2M	018	SD-88-SS	08/19/10	11:29
L5X2P	019	SD-88-01	08/19/10	11:31
L5X2T	020	SD-88-02	08/19/10	11:33
L5X2W	021	SD-88-04	08/19/10	11:35
L5X20	022	SD-89-SS	08/19/10	12:25
L5X21	023	SD-89-01	08/19/10	12:27
L5X24	024	SD-DUP5-01	08/19/10	16:15
L5X26	025	SD-89-02	08/19/10	12:29
L5X29	026	SD-89-04	08/19/10	12:31
L5X3A	027	SD-99-SS	08/19/10	14:35
L5X3D	028	SD-99-01	08/19/10	14:37
L5X3F	029	SD-99-02	08/19/10	14:39
L5X3G	030	SD-99-04	08/19/10	14:41

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
DFTPP050	V060410.b/V0604DF1.D	methods	No Manual Integrations	
SSTD0.4	V060410.b/V0604IC1.D	methods	1,4-Dioxane	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	N-Nitrosodimethylamine	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Pyridine	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Benzo(g,h,i)perylene	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Dibenz(a,h)anthracene	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Indeno(1,2,3-cd)pyrene	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Caprolactam	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Benzo(a)pyrene	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Dimethylphthalate	PNF
SSTD0.4	V060410.b/V0604IC1.D	methods	Benzidine	PNF
SSTD0.4	V060410.b/V0604IC1.D	methods	bis(2-ethylhexyl)Phthalate	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Di-n-octylphthalate	PC
SSTD0.4	V060410.b/V0604IC1.D	methods	Benzo(k)fluoranthene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Pyridine	PNF
SSTD2.0	V060410.b/V0604IC2.D	methods	Benzo(g,h,i)perylene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Dibenz(a,h)anthracene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Indeno(1,2,3-cd)pyrene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Caprolactam	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	1-Methylnaphthalene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Benzo(a)pyrene	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	2,3,4,6-Tetrachlorophenol	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Benzidine	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	3,3'-Dichlorobenzidine	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	bis(2-ethylhexyl)Phthalate	PC
SSTD2.0	V060410.b/V0604IC2.D	methods	Di-n-octylphthalate	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	Pyridine	PNF
SSTD4.0	V060410.b/V0604IC3.D	methods	4-Methylphenol	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	Benzo(a)pyrene	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	2-Naphthylamine	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	Anthracene	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	Benzidine	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	3,3'-Dichlorobenzidine	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	bis(2-ethylhexyl)Phthalate	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	Di-n-octylphthalate	PC
SSTD4.0	V060410.b/V0604IC3.D	methods	N-Nitrosopyrrolidine	PNF

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MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
SSTD4.0	V060410.b/V0604IC3.D	methods	1,2,4,5-Tetrachlorobenzene	PNF
SSTD4.0	V060410.b/V0604IC3.D	methods	Indene	PNF
SSTD10	V060410.b/V0604IC4.D	methods	Benzo(g,h,i)perylene	PC
SSTD10	V060410.b/V0604IC4.D	methods	2-Methylphenol	PC
SSTD10	V060410.b/V0604IC4.D	methods	Dibenz(a,h)anthracene	PC
SSTD10	V060410.b/V0604IC4.D	methods	Benzoic Acid	PC
SSTD10	V060410.b/V0604IC4.D	methods	1-Methylnaphthalene	PC
SSTD10	V060410.b/V0604IC4.D	methods	4-Nitrophenol	PC
SSTD10	V060410.b/V0604IC4.D	methods	Benzidine	PC
SSTD20	V060410.b/V0604IC5.D	methods	1,4-Dioxane	PC
SSTD20	V060410.b/V0604IC5.D	methods	Dibenz(a,h)anthracene	PC
SSTD20	V060410.b/V0604IC5.D	methods	Benzoic Acid	PC
SSTD20	V060410.b/V0604IC5.D	methods	Benzo(a)pyrene	PC
SSTD20	V060410.b/V0604IC5.D	methods	2-Naphthylamine	PC
SSTD20	V060410.b/V0604IC5.D	methods	Benzidine	PC
SSTD20	V060410.b/V0604IC5.D	methods	bis(2-ethylhexyl)Phthalate	PC
SSTD40	V060410.b/V0604IC6.D	methods	Pyridine	PC
SSTD40	V060410.b/V0604IC6.D	methods	Hexachloroethane	PC
SSTD40	V060410.b/V0604IC6.D	methods	Benzoic Acid	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Benzidine	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Pyrene	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Butylbenzylphthalate	PNF
SSTD40	V060410.b/V0604IC6.D	methods	3,3'-Dichlorobenzidine	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Benzo(a)Anthracene	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Chrysene	PNF
SSTD40	V060410.b/V0604IC6.D	methods	bis(2-ethylhexyl)Phthalate	PNF
SSTD40	V060410.b/V0604IC6.D	methods	Terphenyl-d14	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Chrysene-d12	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Benzidine	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Pyrene	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Butylbenzylphthalate	PNF
SSTD60	V060410.b/V0604IC7.D	methods	3,3'-Dichlorobenzidine	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Benzo(a)Anthracene	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Chrysene	PNF
SSTD60	V060410.b/V0604IC7.D	methods	bis(2-ethylhexyl)Phthalate	PNF
SSTD60	V060410.b/V0604IC7.D	methods	Terphenyl-d14	PNF

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Sample Name	Data File	Lot No.	Compound	Code
SSTD80	V060410.b/V0604IC8.D	methods	Chrysene-d12	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Benzidine	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Pyrene	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Butylbenzylphthalate	PNF
SSTD80	V060410.b/V0604IC8.D	methods	3,3'-Dichlorobenzidine	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Benzo(a)Anthracene	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Chrysene	PNF
SSTD80	V060410.b/V0604IC8.D	methods	bis(2-ethylhexyl)Phthalate	PNF
SSTD80	V060410.b/V0604IC8.D	methods	Terphenyl-d14	PNF
STDVER20	V060410.b/V0604STV.D	methods	Benzoic Acid	PNF
STDVER20	V060410.b/V0604STV.D	methods	4-Nitrophenol	PNF

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Sample Name	Data File	Lot No.	Compound	Code
L532P1AA	V082610.b/V0826002.D	C0H250000	No Manual Integrations	
L532P1AC	V082610.b/V0826003.D	C0H250000	No Manual Integrations	
L5X1V1AC	V082610.b/V0826004.D	C0H200635	No Manual Integrations	
L5X101AC	V082610.b/V0826005.D	C0H200635	No Manual Integrations	
L5X101AU	V082610.b/V0826006.D	C0H200635	Pyridine	PC
L5X101AU	V082610.b/V0826006.D	C0H200635	Benzoic Acid	PNF
L5X101AV	V082610.b/V0826007.D	C0H200635	Pyridine	PC
L5X101AV	V082610.b/V0826007.D	C0H200635	Benzoic Acid	PNF
L5X111AC	V082610.b/V0826008.D	C0H200635	No Manual Integrations	
L5X121AC	V082610.b/V0826009.D	C0H200635	No Manual Integrations	
L5X131AC	V082610.b/V0826010.D	C0H200635	No Manual Integrations	
L5X151AC	V082610.b/V0826011.D	C0H200635	Terphenyl-d14	PNF
L5X161AC	V082610.b/V0826012.D	C0H200635	No Manual Integrations	
L5X171AC	V082610.b/V0826013.D	C0H200635	No Manual Integrations	
L5X181AC	V082610.b/V0826014.D	C0H200635	No Manual Integrations	
L5X191AC	V082610.b/V0826015.D	C0H200635	Benzo(g,h,i)perylene	PC
L5X2A1AC	V082610.b/V0826016.D	C0H200635	No Manual Integrations	
L5X2C1AC	V082610.b/V0826017.D	C0H200635	No Manual Integrations	
L5X2D1AC	V082610.b/V0826018.D	C0H200635	No Manual Integrations	
L5X2E1AC	V082610.b/V0826019.D	C0H200635	No Manual Integrations	
L5X2F1AC	V082610.b/V0826020.D	C0H200635	No Manual Integrations	
L5X2H1AC	V082610.b/V0826021.D	C0H200635	No Manual Integrations	
L5X2J1AC	V082610.b/V0826022.D	C0H200635	No Manual Integrations	
L5X2M1AD	V082610.b/V0826023.D	C0H200635	No Manual Integrations	
L5X2P1AJ	V082610.b/V0826024.D	C0H200635	No Manual Integrations	
L5X2T1AP	V082610.b/V0826025.D	C0H200635	No Manual Integrations	
L5X2W1AC	V082610.b/V0826026.D	C0H200635	No Manual Integrations	
L5X201AV	V082610.b/V0826027.D	C0H200635	No Manual Integrations	
L5X211A2	V082610.b/V0826028.D	C0H200635	Dibenz(a,h)anthracene	PC
L5X241AC	V082610.b/V0826029.D	C0H200635	No Manual Integrations	
L5X261AD	V082610.b/V0826030.D	C0H200635	No Manual Integrations	
L5X3A1AD	V082610.b/V0826031.D	C0H200635	No Manual Integrations	
L5X3D1AJ	V082610.b/V0826032.D	C0H200635	No Manual Integrations	
L5X3F1AP	V082610.b/V0826033.D	C0H200635	No Manual Integrations	
SSTD4.0	V082610.b/V08260CC.D	methods	Pyridine	PC
SSTD4.0	V082610.b/V08260CC.D	methods	2-Naphthylamine	PC

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MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
DFTPP050	V082610.b/V0826DF1.D	methods	No Manual Integrations	

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Sample Name	Data File	Lot No.	Compound	Code
L532T1AA	V082710.b/V0827001.D	C0H250000	No Manual Integrations	
L532T1AC	V082710.b/V0827002.D	C0H250000	No Manual Integrations	
L5X291AC	V082710.b/V0827003.D	C0H200635	Benzo(g,h,i)perylene	PC
L5X291AC	V082710.b/V0827003.D	C0H200635	Benzo(k)fluoranthene	PC
L5X291A4	V082710.b/V0827004.D	C0H200635	Pyridine	PC
L5X291A5	V082710.b/V0827005.D	C0H200635	Pyridine	PC
SSTD4.0	V082710.b/V08270CC.D	methods	Pyridine	PC
SSTD4.0	V082710.b/V08270CC.D	methods	Benzyl Alcohol	PC
SSTD4.0	V082710.b/V08270CC.D	methods	2,4,5-Trichlorophenol	PC
SSTD4.0	V082710.b/V08270CC.D	methods	2,3,4,6-Tetrachlorophenol	PC
SSTD4.0	V082710.b/V08270CC.D	methods	Pentachlorophenol	PC
SSTD4.0	V082710.b/V08270CC.D	methods	Carbazole	PC
DFTPP050	V082710.b/V0827DF1.D	methods	No Manual Integrations	

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Sample Name	Data File	Lot No.	Compound	Code
DFTPP050	V083010.b/V0830DF1.D	methods	No Manual Integrations	
SSTD0.4	V083010.b/V0830IC1.D	methods	1,4-Dioxane	PNF
SSTD0.4	V083010.b/V0830IC1.D	methods	N-Nitrosodimethylamine	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Pyridine	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Benzo(g,h,i)perylene	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Dibenz(a,h)anthracene	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	2,4-Dimethylphenol	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Indeno(1,2,3-cd)pyrene	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Benzidine	PNF
SSTD0.4	V083010.b/V0830IC1.D	methods	Chrysene	PC
SSTD0.4	V083010.b/V0830IC1.D	methods	Di-n-octylphthalate	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	1,4-Dioxane	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Pyridine	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Benzo(g,h,i)perylene	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Dibenz(a,h)anthracene	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Indeno(1,2,3-cd)pyrene	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	2,4,5-Trichlorophenol	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	N-Nitrosodiphenylamine (1)	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Benzidine	PC
SSTD2.0	V083010.b/V0830IC2.D	methods	Di-n-octylphthalate	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	1,4-Dioxane	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	N-Nitrosodimethylamine	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Pyridine	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Benzo(g,h,i)perylene	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Benzyl Alcohol	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	4-Methylphenol	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Dibenz(a,h)anthracene	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Indeno(1,2,3-cd)pyrene	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	2-Naphthylamine	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Phenanthrene	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	Anthracene	PC
SSTD4.0	V083010.b/V0830IC3.D	methods	N-Nitrosopyrrolidine	PNF
SSTD4.0	V083010.b/V0830IC3.D	methods	1,2,4,5-Tetrachlorobenzene	PNF
SSTD4.0	V083010.b/V0830IC3.D	methods	Indene	PNF
SSTD10	V083010.b/V0830IC4.D	methods	4-Chloroaniline	PC
SSTD20	V083010.b/V0830IC5.D	methods	2,4,5-Trichlorophenol	PC

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SSTD20	V083010.b/V0830IC5.D	methods	2-Naphthylamine	PC
SSTD40	V083010.b/V0830IC6.D	methods	Chrysene-d12	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Benzidine	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Pyrene	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Butylbenzylphthalate	PNF
SSTD40	V083010.b/V0830IC6.D	methods	3,3'-Dichlorobenzidine	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Benzo(a)Anthracene	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Chrysene	PNF
SSTD40	V083010.b/V0830IC6.D	methods	bis(2-ethylhexyl)Phthalate	PNF
SSTD40	V083010.b/V0830IC6.D	methods	Terphenyl-d14	PNF
SSTD60	V083010.b/V0830IC7.D	methods	Benzoic Acid	PC
SSTD60	V083010.b/V0830IC7.D	methods	2,3,4,6-Tetrachlorophenol	PC
SSTD80	V083010.b/V0830IC8.D	methods	Chrysene-d12	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Caprolactam	PC
SSTD80	V083010.b/V0830IC8.D	methods	Benzidine	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Pyrene	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Butylbenzylphthalate	PNF
SSTD80	V083010.b/V0830IC8.D	methods	3,3'-Dichlorobenzidine	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Benzo(a)Anthracene	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Chrysene	PNF
SSTD80	V083010.b/V0830IC8.D	methods	bis(2-ethylhexyl)Phthalate	PNF
SSTD80	V083010.b/V0830IC8.D	methods	Terphenyl-d14	PNF
STDVER20	V083010.b/V0830STV.D	methods	Benzoic Acid	PNF
STDVER20	V083010.b/V0830STV.D	methods	Caprolactam	PNF

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L5X3G1AG	V083110.b/V0831001.D	C0H200635	No Manual Integrations	
SSTD4.0	V083110.b/V08310CC.D	methods	1,4-Dioxane	PC
SSTD4.0	V083110.b/V08310CC.D	methods	Pyridine	PC
SSTD4.0	V083110.b/V08310CC.D	methods	Benzyl Alcohol	PC
SSTD4.0	V083110.b/V08310CC.D	methods	Benzoic Acid	PC
SSTD4.0	V083110.b/V08310CC.D	methods	Benzidine	PC
DFTPP050	V083110.b/V0831DF1.D	methods	No Manual Integrations	

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Sample Name	Data File	Lot No.	Compound	Code
L5X1V1AD	08280.b/Y0801307.D	C0H200635	No Manual Integrations	
L5X101AD	08280.b/Y0801308.D	C0H200635	No Manual Integrations	
L5X111AD	08280.b/Y0801309.D	C0H200635	No Manual Integrations	
L5X121AD	08280.b/Y0801310.D	C0H200635	No Manual Integrations	
L5X131AD	08280.b/Y0801311.D	C0H200635	No Manual Integrations	
L5X131AU	08280.b/Y0801312.D	C0H200635	Aroclor-1260	PC
L5X131AU	08280.b/Y0801312.D	C0H200635	Aroclor-1016	PC
L5X131AV	08280.b/Y0801313.D	C0H200635	Aroclor-1260	PC
L5X131AV	08280.b/Y0801313.D	C0H200635	Aroclor-1016	PC
L5X151AD	08280.b/Y0801314.D	C0H200635	No Manual Integrations	
L5X161AD	08280.b/Y0801315.D	C0H200635	No Manual Integrations	
L5X171AD	08280.b/Y0801316.D	C0H200635	No Manual Integrations	
L5X181AD	08280.b/Y0801317.D	C0H200635	No Manual Integrations	
L5X191AD	08280.b/Y0801318.D	C0H200635	No Manual Integrations	
L5X2A1AD	08280.b/Y0801319.D	C0H200635	No Manual Integrations	
L5X2C1AD	08280.b/Y0801320.D	C0H200635	No Manual Integrations	
L5X2D1AD	08280.b/Y0801321.D	C0H200635	No Manual Integrations	
L5X2F1AD	08280.b/Y0801323.D	C0H200635	No Manual Integrations	
L532V1AA	08280.b/Y0801325.D	C0H200635	No Manual Integrations	
L532V1AC	08280.b/Y0801326.D	C0H200265	Aroclor-1260	PC
L532V1AC	08280.b/Y0801326.D	C0H200265	Aroclor-1016	PC
MH1660	08280.b/Y0801327.D	SDGa05064	Aroclor-1260	PC
MH1660	08280.b/Y0801327.D	SDGa05064	Aroclor-1016	PC
L5X2H1AD	08280.b/Y0801328.D	C0H200635	No Manual Integrations	
L5X2M1AE	08280.b/Y0801330.D	C0H200635	No Manual Integrations	
L5X2P1AK	08280.b/Y0801331.D	C0H200635	No Manual Integrations	
L5X2T1AQ	08280.b/Y0801332.D	C0H200635	Aroclor-1260	PC
L5X2T1AQ	08280.b/Y0801332.D	C0H200635	Tetrachloro-m-xylene	
L5X2W1AD	08280.b/Y0801333.D	C0H200635	No Manual Integrations	
L5X201AW	08280.b/Y0801334.D	C0H200635	No Manual Integrations	
L5X211A3	08280.b/Y0801335.D	C0H200635	No Manual Integrations	
L5X241AD	08280.b/Y0801336.D	C0H200635	No Manual Integrations	
L5X261AE	08280.b/Y0801337.D	C0H200635	No Manual Integrations	
L5X291AD	08280.b/Y0801338.D	C0H200635	No Manual Integrations	
L5X3A1AE	08280.b/Y0801339.D	C0H200635	No Manual Integrations	
L5X3D1AK	08280.b/Y0801340.D	C0H200635	No Manual Integrations	

Legend

BAS - Baseline Event
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PFS - Peak Split
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WFI - Peak Integrated Incorrectly
PFT - Peak Tailing
PFF - Peak Fronting
PAB - Peak Added Back

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
L5X3F1AQ	08280.b/Y0801341.D	C0H200635	No Manual Integrations	
L5X3F1A5	08280.b/Y0801342.D	C0H200635	Aroclor-1260	PC
L5X3F1A5	08280.b/Y0801342.D	C0H200635	Aroclor-1016	PC
L5X3F1A6	08280.b/Y0801343.D	C0H200635	Aroclor-1260	PC
L5X3F1A6	08280.b/Y0801343.D	C0H200635	Aroclor-1016	PC
L5X3G1AH	08280.b/Y0801344.D	C0H200635	No Manual Integrations	
L532W1AA	08280.b/Y0801346.D	C0H250000	No Manual Integrations	
L532W1AC	08280.b/Y0801347.D	C0H200635	Aroclor-1260	PC
L532W1AC	08280.b/Y0801347.D	C0H200635	Aroclor-1016	PC
M1660	08280.b/Y0801348.D	SDGa05064	Aroclor-1260	PC
M1660	08280.b/Y0801348.D	SDGa05064	Aroclor-1016	PC
L5X2E1AD	08280.b/Y0801350.D	C0H200635	No Manual Integrations	
L5X2J1AD	08280.b/Y0801351.D	C0H200635	No Manual Integrations	
MH1660	08280.b/Y0801353.D	SDGa05064	No Manual Integrations	
L5X1V1AD	08280.b/Z0801307.D	C0H200635	No Manual Integrations	
L5X101AD	08280.b/Z0801308.D	C0H200635	No Manual Integrations	
L5X111AD	08280.b/Z0801309.D	C0H200635	No Manual Integrations	
L5X121AD	08280.b/Z0801310.D	C0H200635	No Manual Integrations	
L5X131AD	08280.b/Z0801311.D	C0H200635	No Manual Integrations	
L5X131AU	08280.b/Z0801312.D	C0H200635	No Manual Integrations	
L5X131AV	08280.b/Z0801313.D	C0H200635	No Manual Integrations	
L5X151AD	08280.b/Z0801314.D	C0H200635	No Manual Integrations	
L5X161AD	08280.b/Z0801315.D	C0H200635	No Manual Integrations	
L5X171AD	08280.b/Z0801316.D	C0H200635	No Manual Integrations	
L5X181AD	08280.b/Z0801317.D	C0H200635	No Manual Integrations	
L5X191AD	08280.b/Z0801318.D	C0H200635	No Manual Integrations	
L5X2A1AD	08280.b/Z0801319.D	C0H200635	No Manual Integrations	
L5X2C1AD	08280.b/Z0801320.D	C0H200635	No Manual Integrations	
L5X2D1AD	08280.b/Z0801321.D	C0H200635	No Manual Integrations	
L5X2F1AD	08280.b/Z0801323.D	C0H200635	Tetrachloro-m-xylene	PC
L532V1AA	08280.b/Z0801325.D	C0H200635	No Manual Integrations	
L532V1AC	08280.b/Z0801326.D	C0H200635	No Manual Integrations	
MH1660	08280.b/Z0801327.D	SDGa05064	Aroclor-1016	PC
L5X2H1AD	08280.b/Z0801328.D	C0H200635	No Manual Integrations	
L5X2M1AE	08280.b/Z0801330.D	C0H200635	No Manual Integrations	
L5X2P1AK	08280.b/Z0801331.D	C0H200635	No Manual Integrations	

Legend

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SN - Other See Narrative
PFS - Peak Split
WFP - Peak Identified Incorrectly
WFI - Peak Integrated Incorrectly
PFT - Peak Tailing
PFF - Peak Fronting
PAB - Peak Added Back

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
L5X2T1AQ	08280.b/Z0801332.D	C0H200635	Aroclor-1260	PC
L5X2T1AQ	08280.b/Z0801332.D	C0H200635	Tetrachloro-m-xylene	
L5X2W1AD	08280.b/Z0801333.D	C0H200635	No Manual Integrations	
L5X201AW	08280.b/Z0801334.D	C0H200635	No Manual Integrations	
L5X211A3	08280.b/Z0801335.D	C0H200635	Tetrachloro-m-xylene	PC
L5X241AD	08280.b/Z0801336.D	C0H200635	No Manual Integrations	
L5X261AE	08280.b/Z0801337.D	C0H200635	No Manual Integrations	
L5X291AD	08280.b/Z0801338.D	C0H200635	No Manual Integrations	
L5X3A1AE	08280.b/Z0801339.D	C0H200635	No Manual Integrations	
L5X3D1AK	08280.b/Z0801340.D	C0H200635	No Manual Integrations	
L5X3F1AQ	08280.b/Z0801341.D	C0H200635	No Manual Integrations	
L5X3F1A5	08280.b/Z0801342.D	C0H200635	Aroclor-1016	PC
L5X3F1A6	08280.b/Z0801343.D	C0H200635	No Manual Integrations	
L5X3G1AH	08280.b/Z0801344.D	C0H200635	No Manual Integrations	
L532W1AA	08280.b/Z0801346.D	C0H200635	No Manual Integrations	
L532W1AC	08280.b/Z0801347.D	C0H200635	No Manual Integrations	
M1660	08280.b/Z0801348.D	SDGa05064	No Manual Integrations	
L5X2E1AD	08280.b/Z0801350.D	C0H200635	No Manual Integrations	
L5X2J1AD	08280.b/Z0801351.D	C0H200635	No Manual Integrations	
MH1660	08280.b/Z0801353.D	SDGa05064	No Manual Integrations	

Legend

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PC - Poor Chromatography
WI - Wrong Isomer
SN - Other See Narrative
PFS - Peak Split
WFP - Peak Identified Incorrectly
WFI - Peak Integrated Incorrectly
PFT - Peak Tailing
PFF - Peak Fronting
PAB - Peak Added Back

MANUAL INTEGRATION SUMMARY REPORT

HP6890 GC-14 MR-1

Sample Name	Data File	Lot No.	Compound	Code
M2154	Y0801108.D	SDGa05064	No Manual Integrations	
M1232	Y0801109.D	SDGa05064	No Manual Integrations	
M1242	Y0801110.D	SDGa05064	No Manual Integrations	
M1248	Y0801111.D	SDGa05064	No Manual Integrations	
M1262	Y0801112.D	SDGa05064	No Manual Integrations	
M1268	Y0801113.D	SDGa05064	No Manual Integrations	
XL1660	Y0801114.D	SDGa05064	No Manual Integrations	
L1660	Y0801115.D	SDGa05064	No Manual Integrations	
ML1660	Y0801116.D	SDGa05064	No Manual Integrations	
M1660	Y0801117.D	SDGa05064	No Manual Integrations	
MH1660	Y0801118.D	SDGa05064	No Manual Integrations	
H1660	Y0801119.D	SDGa05064	No Manual Integrations	
XH1660	Y0801120.D	SDGa05064	No Manual Integrations	
2M2154	Y0801121.D	SDGa05064	No Manual Integrations	
2M1232	Y0801122.D	SDGa05064	No Manual Integrations	
2M1242	Y0801123.D	SDGa05064	No Manual Integrations	
2M1248	Y0801124.D	SDGa05064	No Manual Integrations	
2M1262	Y0801125.D	SDGa05064	No Manual Integrations	
2M1268	Y0801126.D	SDGa05064	No Manual Integrations	
2M1660	Y0801127.D	SDGa05064	No Manual Integrations	

Legend

BAS - Baseline Event
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PNF - Peak Not Found
PC - Poor Chromatography
WI - Wrong Isomer
SN - Other See Narrative
PFS - Peak Split
WFP - Peak Identified Incorrectly
WFI - Peak Integrated Incorrectly
PFT - Peak Tailing
PFF - Peak Fronting
PAB - Peak Added Back

MANUAL INTEGRATION SUMMARY REPORT

HP6890 GC-14 MR-2

Sample Name	Data File	Lot No.	Compound	Code
M2154	Z0801108.D	SDGa05064	No Manual Integrations	
M1232	Z0801109.D	SDGa05064	No Manual Integrations	
M1242	Z0801110.D	SDGa05064	No Manual Integrations	
M1248	Z0801111.D	SDGa05064	No Manual Integrations	
M1262	Z0801112.D	SDGa05064	No Manual Integrations	
M1268	Z0801113.D	SDGa05064	No Manual Integrations	
XL1660	Z0801114.D	SDGa05064	No Manual Integrations	
L1660	Z0801115.D	SDGa05064	No Manual Integrations	
ML1660	Z0801116.D	SDGa05064	No Manual Integrations	
M1660	Z0801117.D	SDGa05064	No Manual Integrations	
MH1660	Z0801118.D	SDGa05064	No Manual Integrations	
H1660	Z0801119.D	SDGa05064	No Manual Integrations	
XH1660	Z0801120.D	SDGa05064	No Manual Integrations	
2M2154	Z0801121.D	SDGa05064	No Manual Integrations	
2M1232	Z0801122.D	SDGa05064	No Manual Integrations	
2M1242	Z0801123.D	SDGa05064	No Manual Integrations	
2M1248	Z0801124.D	SDGa05064	No Manual Integrations	
2M1262	Z0801125.D	SDGa05064	No Manual Integrations	
2M1268	Z0801126.D	SDGa05064	No Manual Integrations	
2M1660	Z0801127.D	SDGa05064	No Manual Integrations	

Legend

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TAIL - Peak Tailing or Fronting
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MSID - Analyte Misidentified by the Data System
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PC - Poor Chromatography
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SN - Other See Narrative
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WFP - Peak Identified Incorrectly
WFI - Peak Integrated Incorrectly
PFT - Peak Tailing
PFF - Peak Fronting
PAB - Peak Added Back

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
M2154	08280.b/Y0801300.D	SDGa05064	No Manual Integrations	
M1232	08280.b/Y0801301.D	SDGa05064	No Manual Integrations	
M1242	08280.b/Y0801302.D	SDGa05064	No Manual Integrations	
M1248	08280.b/Y0801303.D	SDGa05064	No Manual Integrations	
M1262	08280.b/Y0801304.D	SDGa05064	No Manual Integrations	
M1268	08280.b/Y0801305.D	SDGa05064	No Manual Integrations	
M1660	08280.b/Y0801306.D	SDGa05064	Aroclor-1260	PC
M1660	08280.b/Y0801306.D	SDGa05064	Aroclor-1016	PC
M2154	08280.b/Z0801300.D	SDGa05064	No Manual Integrations	
M1232	08280.b/Z0801301.D	SDGa05064	No Manual Integrations	
M1242	08280.b/Z0801302.D	SDGa05064	No Manual Integrations	
M1248	08280.b/Z0801303.D	SDGa05064	No Manual Integrations	
M1262	08280.b/Z0801304.D	SDGa05064	No Manual Integrations	
M1268	08280.b/Z0801305.D	SDGa05064	No Manual Integrations	
M1660	08280.b/Z0801306.D	SDGa05064	No Manual Integrations	

Legend

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PAB - Peak Added Back

COH200635

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	Mike Martin		154238
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 3
20251 Century Blvd, Suite 200	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Provenzano		
Project Name and Location (State)	**Carrier/Waybill Number**		
MBC Sed. Samp. Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis: PP metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-106-SS	8/18/10	1601			X		X						X	X	X	
SD-106-01	↓	1603											X	X	X	
SD-106-02	↓	1605											X	X	X	
SD-106-04	8/18/10	1607											X	X	X	
SD-100-SS	8/19/10	0847											X	X	X	
SD-100-01	↓	0849											X	X	X	
SD-100-02		0851											X	X	X	
SD-100-04		0853											X	X	X	
SD-98-SS		1003											X	X	X	
SD-98-01		1005											X	X	X	
SD-98-02	↓	1007			↓		↓						X	X	X	
SD-DUP4-02	8/19/10	1200			X		X						X	X	X	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By	8/19/10	1620	2. Received By		
3. Relinquished By			3. Received By	8/20/10	1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

[redacted]

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141296
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528 3022 301 528 3000	Lab Number:	Page 2 of 3
City: GERMANTOWN State: MD Zip Code:	Site Contact: Tony Apanowage Lab Contact:		
Project Name and Location (State): MRC SEDIMENT SAMPLING MIDDLE RIVER, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals+Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-98-04	8/19/10	1009			X		X						X	X	X			
SD-96-SS	↓	1053			↓		↓						X	X	X			
SD-96-01		1055											X	X	X			
SD-96-02		1057											X	X	X			
SD-96-04		1059											X	X	X			
SD-88-SS		1129											X	X	X	X	X	
SD-88-01		1131											X	X	X	X	X	
SD-88-02		1133											X	X	X	X	X	
SD-88-04		1135											X	X	X	[illegible]	X	
SD-89-SS		1225											X	X	X	X	X	
SD-89-01	↓	1227			↓		↓						X	X	X	X	X	
SD-DUP5-01	8/19/10	1615			X		X						X	X	X			

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/19/10	1530	1. Received By: [signature]	8/19/10	1530
2. Relinquished By: [signature]	8/19/10	1620	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/20/10	10:00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

[redacted]

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

COH200635

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike Martin		154237
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 3 of 3
20251 Century Blvd suite 200	301-528-3022 · 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Apanewicz		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Samp. Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-89-02	8/19/10	1229			X		X						X	X	X	X	X	
SD-89-04		1231											X	X	X	[redacted]	X	
SD-99-SS		1435											X	X	X	X	X	
SD-99-01		1437											X	X	X	X	X	
SD-99-02		1439											X	X	X	X	X	
SD-99-04	8/19/10	1441			X		X						X	X	X		X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By	8/19/10	1620	2. Received By		
3. Relinquished By			3. Received By	8/20/10	1033

Comments

DISTRIBUTION: *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

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(1-389)

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/20/10

Coolers Opened and Unpacked on: 8/20/10 By: RLF (Signature)

TestAmerica Pittsburgh Lot Number: COH200635

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?			✓
9.	Were all bottles sealed in separate plastic bags?		✓	
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?		✓	
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: FEDEX UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

TestAmerica Pittsburgh

Cooler Receipt Form

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUTI(1) PH<2	CN PH≥12	OG TPHC PH<2	PHEN PH<2	SULF PH≥12	TOC PH<2	TOX PH<2	VOA P/UP	hardness PH<2	Residual CL	

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	1.9°	3
2	3.6°	5

Sample	Lot Number**

*Acceptable Temperature Range: < 0-6 °C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

X:\Forms\Cooler Receipt Form_updated 102010.DOC
Rev. 1. 01/20/2010

From: Origin ID: MTNA (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

FedEx Express

Ship Date: 19AUG10
ActWgt: 37.0 LB
CAD: 1030460/NET3060

Delivery Address Bar Code

SHIP TO: (412) 963-7058 BILL RECIPIENT
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

Ref # Tetra Tech Sediments
Invoice #
PO #
Dept #

1 of 2

TRK# 0201 7938 3946 3677

FRI - 20 AUG A2
STANDARD OVERNIGHT

MASTER

15238
PA-US
PIT

NA AGCA

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: Origin ID: MTNA (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

Ship Date: 19AUG10
ActWgt: 60.0 LB
CAD: 1030460/INET3060

Delivery Address Bar Code

SHIP TO: (412) 963-7058 **BILL RECIPIENT**
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

Ref # Tetra Tech Sediments
Invoice #
PO #
Dept #

2 of 2
MPS# 0263 7938 3946 3758
Mstr# 7938 3946 3677 0201

FRI - 20 AUG A2
STANDARD OVERNIGHT

15238
PA-US
PIT

NA AGCA

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

DATA SUMMARY PACKAGE

GC/MS SEMIVOLATILE SUMMARY

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200635

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-106-SS	82	84	78	74	82	76	00
02	SD-106-01	85	69	70	74	71	72	00
03	SD-106-02	78	66	70	65	66	68	00
04	SD-106-04	80	63	69	72	70	58	00
05	SD-100-SS	67	73	72	57	69	86	00
06	SD-100-01	68	64	66	59	68	71	00
07	SD-100-02	69	71	71	66	73	83	00
08	SD-100-04	113*	85	89	95	95	88	01
09	SD-98-SS	84	68	68	66	64	74	00
10	SD-98-01	91	73	81	78	85	87	00
11	SD-98-02	77	58	66	72	72	70	00
12	SD-DUP4-02	94	74	89	84	90	100	00
13	SD-98-04	83	77	87	78	81	79	00
14	SD-96-SS	91	76	80	78	84	80	00
15	SD-96-01	73	58	63	58	65	67	00
16	SD-96-02	70	63	69	57	60	70	00
17	SD-96-04	73	80	74	65	73	89	00
18	SD-88-SS	80	65	75	61	75	75	00
19	SD-88-01	85	63	79	78	79	77	00
20	SD-88-02	65	57	65	62	62	64	00
21	SD-88-04	92	61	74	75	78	81	00
22	SD-89-SS	68	51	57	57	58	62	00
23	SD-89-01	54	38	54	52	57	48	00
24	SD-DUP5-01	59	54	55	53	58	68	00
25	SD-89-02	77	59	66	64	69	70	00
26	SD-89-04	57	61	66	52	52	56	00
27	SD-99-SS	61	48	57	51	54	54	00

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200635

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-99-01	77	57	68	66	68	70	00
02	SD-99-02	70	62	62	66	60	64	00
03	SD-99-04	76	80	79	80	85	90	00
04	METHOD BLK. L532P1AA	83	92	77	75	80	74	00
05	METHOD BLK. L532T1AA	78	91	73	68	73	70	00
06	LCS L532P1AC	90	93	86	81	86	92	00
07	LCS L532T1AC	78	80	73	67	72	80	00
08	SD-106-01 D	84	66	75	83	82	69	00
09	SD-89-04 D	69	59	68	60	63	67	00
10	SD-106-01 S	81	66	67	70	71	64	00
11	SD-89-04 S	71	70	67	64	60	68	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-110)
SRG02	= Terphenyl-d14	(21-130)
SRG03	= 2-Fluorobiphenyl	(28-108)
SRG04	= 2-Fluorophenol	(28-107)
SRG05	= Phenol-d5	(30-112)
SRG06	= 2,4,6-Tribromophenol	(21-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L532P1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: V0826002.

Lot Number: C0H200635

Date Analyzed: 08/26/10

Time Analyzed: 12:36

Matrix: SOLID

Date Extracted:08/25/10

GC Column: DB5 ID: .25

Extraction Method:

Instrument ID: 731

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-106-SS	L5X1V1AC	V0826004.	08/26/10	13:38
02	SD-106-01	L5X101AC	V0826005.	08/26/10	13:59
03	SD-106-01	L5X101AU S	V0826006.	08/26/10	14:20
04	SD-106-01	L5X101AV D	V0826007.	08/26/10	14:40
05	SD-106-02	L5X111AC	V0826008.	08/26/10	15:01
06	SD-106-04	L5X121AC	V0826009.	08/26/10	15:22
07	SD-100-SS	L5X131AC	V0826010.	08/26/10	15:42
08	SD-100-01	L5X151AC	V0826011.	08/26/10	16:03
09	SD-100-02	L5X161AC	V0826012.	08/26/10	16:24
10	SD-100-04	L5X171AC	V0826013.	08/26/10	16:44
11	SD-98-SS	L5X181AC	V0826014.	08/26/10	17:05
12	SD-98-01	L5X191AC	V0826015.	08/26/10	17:25
13	SD-98-02	L5X2A1AC	V0826016.	08/26/10	17:46
14	SD-DUP4-02	L5X2C1AC	V0826017.	08/26/10	18:06
15	SD-98-04	L5X2D1AC	V0826018.	08/26/10	18:27
16	SD-96-SS	L5X2E1AC	V0826019.	08/26/10	18:47
17	SD-96-01	L5X2F1AC	V0826020.	08/26/10	19:07
18	SD-96-02	L5X2H1AC	V0826021.	08/26/10	19:28
19	SD-96-04	L5X2J1AC	V0826022.	08/26/10	19:49
20	SD-88-SS	L5X2M1AD	V0826023.	08/26/10	20:10
21	SD-88-01	L5X2P1AJ	V0826024.	08/26/10	20:31
22	SD-88-02	L5X2T1AP	V0826025.	08/26/10	20:51
23	CHECK SAMPLE	L532P1AC C	V0826003.	08/26/10	12:56
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H200635 **Work Order #...:** L532P1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H250000-043

Prep Date.....: 08/25/10 **Analysis Time..:** 12:36
Analysis Date..: 08/26/10 **Prep Batch #...:** 0237043 **Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5 **Initial Wgt/Vol:** 30 g **Instrument ID..:** 731
Analyst ID.....: 003200

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(27 - 110)
Terphenyl-d14	92	(21 - 130)
2-Fluorobiphenyl	77	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	80	(30 - 112)
2,4,6-Tribromophenol	74	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L532P1AC
BATCH: 0237043

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	251	75	39- 105	
2-Chlorophenol	333	230	69	40- 105	
1,4-Dichlorobenzene	333	220	66	41- 101	
N-Nitrosodi-n-propylamine	333	263	79	42- 108	
1,2,4-Trichlorobenzene	333	228	68	41- 105	
4-Chloro-3-methylphenol	333	264	79	43- 110	
Acenaphthene	333	274	82	42- 104	
4-Nitrophenol	333	314	94	27- 131	
2,4-Dinitrotoluene	333	301	90	48- 118	
Pentachlorophenol	333	221	66	18- 125	
Pyrene	333	264	79	39- 113	
4-Methylphenol	667	475	71	43- 107	
Hexachloroethane	333	230	69	40- 102	
Naphthalene	333	240	72	42- 104	
4-Bromophenyl phenyl ethe	333	246	74	43- 111	
Butyl benzyl phthalate	333	313	94	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-106-01 Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X101AU
BATCH: 0237043

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	MS CONCENT. (ug/kg)	MS % REC	LIMITS REC	QUAL
Phenol	911	140	706	62	39 - 105	
2-Chlorophenol	911	ND	588	64	40 - 105	
1,4-Dichlorobenzene	911	ND	497	55	41 - 101	
N-Nitrosodi-n-propylamine	911	ND	631	69	42 - 108	
1,2,4-Trichlorobenzene	911	ND	591	65	41 - 105	
4-Chloro-3-methylphenol	911	ND	676	74	43 - 110	
Acenaphthene	911	ND	643	71	42 - 104	
4-Nitrophenol	911	ND	664	73	27 - 131	
2,4-Dinitrotoluene	911	ND	666	73	48 - 118	
Pentachlorophenol	911	ND	574	63	18 - 125	
Pyrene	911	ND	579	64	39 - 113	
4-Methylphenol	1820	ND	1100	60	43 - 107	
Hexachloroethane	911	ND	503	55	40 - 102	
Naphthalene	911	ND	568	62	42 - 104	
4-Bromophenyl phenyl ethe	911	ND	586	64	43 - 111	
Butyl benzyl phthalate	911	ND	738	81	40 - 117	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-106-01 Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X101AV
BATCH: 0237043

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENT. (ug/kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Phenol	911	889	82	23	40	39- 105	
2-Chlorophenol	911	738	81	23	37	40- 105	
1,4-Dichlorobenzene	911	586	64	16	32	41- 101	
N-Nitrosodi-n-propylamine	911	812	89	25	32	42- 108	
1,2,4-Trichlorobenzene	911	637	70	7.6	36	41- 105	
4-Chloro-3-methylphenol	911	702	77	3.7	31	43- 110	
Acenaphthene	911	697	76	8.0	34	42- 104	
4-Nitrophenol	911	765	84	14	33	27- 131	
2,4-Dinitrotoluene	911	784	86	16	33	48- 118	
Pentachlorophenol	911	617	68	7.3	34	18- 125	
Pyrene	911	615	67	6.0	28	39- 113	
4-Methylphenol	1820	1270	70	14	36	43- 107	
Hexachloroethane	911	573	63	13	34	40- 102	
Naphthalene	911	609	67	7.0	25	42- 104	
4-Bromophenyl phenyl ethe	911	574	63	2.0	20	43- 111	
Butyl benzyl phthalate	911	750	82	1.6	34	40- 117	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 16 outside limits
Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L532T1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: V0827001.

Lot Number: C0H200635

Date Analyzed: 08/27/10

Time Analyzed: 10:42

Matrix: SOLID

Date Extracted:08/25/10

GC Column: DB5 ID: .25

Extraction Method:

Instrument ID: 731

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-88-04	L5X2W1AC	V0826026.	08/26/10	21:12
02	SD-89-SS	L5X201AV	V0826027.	08/26/10	21:33
03	SD-89-01	L5X211A2	V0826028.	08/26/10	21:54
04	SD-DUP5-01	L5X241AC	V0826029.	08/26/10	22:14
05	SD-89-02	L5X261AD	V0826030.	08/26/10	22:35
06	SD-89-04	L5X291AC	V0827003.	08/27/10	12:32
07	SD-89-04	L5X291A4 S	V0827004.	08/27/10	12:54
08	SD-89-04	L5X291A5 D	V0827005.	08/27/10	13:16
09	SD-99-SS	L5X3A1AD	V0826031.	08/26/10	22:56
10	SD-99-01	L5X3D1AJ	V0826032.	08/26/10	23:17
11	SD-99-02	L5X3F1AP	V0826033.	08/26/10	23:38
12	SD-99-04	L5X3G1AG	V0831001.	08/31/10	13:42
13	CHECK SAMPLE	L532T1AC C	V0827002.	08/27/10	11:26
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30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H200635 **Work Order #...:** L532T1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H250000-044

Prep Date.....: 08/25/10 **Analysis Time..:** 10:42
Analysis Date..: 08/27/10 **Prep Batch #...:** 0237044 **Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5 **Initial Wgt/Vol:** 30 g **Instrument ID..:** 731
Analyst ID.....: 003200

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(27 - 110)
Terphenyl-d14	91	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	70	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L532T1AC
BATCH: 0237044

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	195	58	39- 105	
2-Chlorophenol	333	193	58	40- 105	
1,4-Dichlorobenzene	333	186	56	41- 101	
N-Nitrosodi-n-propylamine	333	202	61	42- 108	
1,2,4-Trichlorobenzene	333	191	57	41- 105	
4-Chloro-3-methylphenol	333	217	65	43- 110	
Acenaphthene	333	221	66	42- 104	
4-Nitrophenol	333	249	75	27- 131	
2,4-Dinitrotoluene	333	225	68	48- 118	
Pentachlorophenol	333	169	51	18- 125	
Pyrene	333	224	67	39- 113	
4-Methylphenol	667	367	55	43- 107	
Hexachloroethane	333	191	57	40- 102	
Naphthalene	333	199	60	42- 104	
4-Bromophenyl phenyl ethe	333	211	63	43- 111	
Butyl benzyl phthalate	333	259	78	40- 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-89-04 Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X291A4
BATCH: 0237044

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	MS CONCENT. (ug/kg)	MS % REC	LIMITS REC	QUAL
Phenol	688	ND	433	63	39- 105	
2-Chlorophenol	688	ND	393	57	40- 105	
1,4-Dichlorobenzene	688	ND	344	50	41- 101	
N-Nitrosodi-n-propylamine	688	ND	433	63	42- 108	
1,2,4-Trichlorobenzene	688	ND	381	55	41- 105	
4-Chloro-3-methylphenol	688	ND	472	69	43- 110	
Acenaphthene	688	ND	522	76	42- 104	
4-Nitrophenol	688	ND	538	78	27- 131	
2,4-Dinitrotoluene	688	ND	566	82	48- 118	
Pentachlorophenol	688	ND	412	60	18- 125	
Pyrene	688	130	640	74	39- 113	
4-Methylphenol	1380	ND	748	54	43- 107	
Hexachloroethane	688	ND	313	45	40- 102	
Naphthalene	688	23	432	59	42- 104	
4-Bromophenyl phenyl ethe	688	ND	502	73	43- 111	
Butyl benzyl phthalate	688	ND	608	88	40- 117	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-89-04 Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X291A5
BATCH: 0237044

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENT. (ug/kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Phenol	688	455	66	5.1	40	39- 105	
2-Chlorophenol	688	396	58	0.79	37	40- 105	
1,4-Dichlorobenzene	688	324	47	6.0	32	41- 101	
N-Nitrosodi-n-propylamine	688	455	66	5.0	32	42- 108	
1,2,4-Trichlorobenzene	688	360	52	5.6	36	41- 105	
4-Chloro-3-methylphenol	688	452	66	4.4	31	43- 110	
Acenaphthene	688	476	69	9.3	34	42- 104	
4-Nitrophenol	688	529	77	1.6	33	27- 131	
2,4-Dinitrotoluene	688	516	75	9.2	33	48- 118	
Pentachlorophenol	688	333	48	21	34	18- 125	
Pyrene	688	573	65	11	28	39- 113	
4-Methylphenol	1380	768	56	2.6	36	43- 107	
Hexachloroethane	688	309	45	1.2	34	40- 102	
Naphthalene	688	389	53	10	25	42- 104	
4-Bromophenyl phenyl ethe	688	477	69	5.1	20	43- 111	
Butyl benzyl phthalate	688	578	84	5.1	34	40- 117	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 16 outside limits
Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0604DF1 DFTPP Injection Date: 06/04/10

Instrument ID: 731 DFTPP Injection Time: 0711

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.5
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Mass 69 relative abundance	42.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	40.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	24.3
365	Greater than 1.0% of mass 198	2.64
441	Present, but less than mass 443	7.9
442	40.0 - 99.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	9.8 (18.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0.4	SSTD0.4	V0604IC1	06/04/10	0727
02	SSTD2.0	SSTD2.0	V0604IC2	06/04/10	0747
03	SSTD4.0	SSTD4.0	V0604IC3	06/04/10	0808
04	SSTD10	SSTD10	V0604IC4	06/04/10	0829
05	SSTD20	SSTD20	V0604IC5	06/04/10	0850
06	SSTD40	SSTD40	V0604IC6	06/04/10	0911
07	SSTD60	SSTD60	V0604IC7	06/04/10	0932
08	SSTD80	SSTD80	V0604IC8	06/04/10	0953
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 07-Jun-2010 09:07

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Calibration File Names:
Level 1: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC1.D
Level 2: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC2.D
Level 3: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC3.D
Level 4: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC4.D
Level 5: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC5.D
Level 6: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC6.D
Level 7: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC7.D
Level 8: \\PITSVR06\D\chem\731.i\V060410.b\V0604IC8.D

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
198 1,4-Dioxane	3336	19297	36378	70187	135609	222998						
	348104	470498					QUAD	-0.07909	2.24177	0.05001	0.99571	
226 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
227 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

TestAmerica Pittsburgh

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
7 N-Nitrosomorpholine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
8 Ethyl methanesulfonate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
9 Pyridine	+++++	1.22673	1.24131	1.22721	1.20763	1.18372						
	1.23844	1.13757					AVRG		1.20894		3.07633	
199 Thionazin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
200 Sulfotepp	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
10 N-Nitrosodimethylamine	0.64211	0.60387	0.59631	0.63376	0.61308	0.61425						
	0.64090	0.57939					AVRG		0.61546		3.63410	
11 Ethyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
12 3-Chloropropionitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
13 Malononitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
14 2-Picoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
15 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
16 Methyl methanesulfonate	0.70455	0.82859	0.77850	0.79323	0.78168	0.73961						
	0.75041	0.69965					AVRG		0.75953		5.85476	
18 1,3-Dichloro-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
19 N-Nitrosodiethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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C0H200635

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
21 Aniline	1.74621	1.66939	1.59976	1.74741	1.78512	1.81961						
	2.00580	1.88575					AVRG		1.78238		7.05370	
206 Benzaldehyde	+++++	12575	25018	101046	255447	387897						
	501906	+++++					QUAD	0.28624	0.80421	0.14414	0.99784	
22 Phenol	1.78465	1.75395	1.73644	1.74068	1.75007	1.78598						
	1.93623	1.83131					AVRG		1.78991		3.73763	
23 bis(2-Chloroethyl)ether	1.26693	1.16677	1.10047	1.05620	1.10246	1.06616						
	1.12655	1.07355					AVRG		1.11989		6.18974	
24 2-Chlorophenol	1.39435	1.38656	1.28407	1.33976	1.32236	1.35961						
	1.46293	1.37856					AVRG		1.36602		3.92526	
25 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
26 1,3-Dichlorobenzene	1.87682	1.60931	1.70729	1.58594	1.61092	1.65716						
	1.81603	1.73398					AVRG		1.69968		6.15819	

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
27 1,4-Dichlorobenzene	1.74940	1.59239	1.63753	1.62660	1.66734	1.67862					
	1.82470	1.76607					AVRG		1.69283		4.70134
28 1,2-Dichlorobenzene	1.71666	1.52401	1.57720	1.51704	1.59534	1.59132					
	1.71968	1.64822					AVRG		1.61118		4.83802
29 Benzyl Alcohol	+++++	0.82993	0.75330	0.74859	0.84718	0.83625					
	0.92287	0.87732					AVRG		0.83078		7.56556
30 2-Methylphenol	1.33123	1.09182	1.19809	1.22251	1.23746	1.22846					
	1.33644	1.27304					AVRG		1.23988		6.31201
31 2,2'-oxybis(1-Chloropropane)	1.54594	1.39577	1.33330	1.32057	1.33876	1.31549					
	1.39132	1.33073					AVRG		1.37148		5.60295
32 N-Nitroso-di-n-propylamine	0.97870	0.96917	0.92363	0.93256	0.93138	0.94140					
	1.02139	0.95682					AVRG		0.95688		3.39216
M 195 Cresols, total	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000 <-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
192 4-Methylphenol	1.38126	1.27420	1.32531	1.24057	1.27445	1.30322						
	1.46758	1.41124					AVRG		1.33473		5.86613	
203 3&4-Methylphenol total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
193 3-Methylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
34 Hexachloroethane	0.80528	0.70542	0.67874	0.68779	0.70994	0.72001						
	0.76037	0.71624					AVRG		0.72297		5.70308	
35 Nitrobenzene	0.39734	0.43022	0.44529	0.45364	0.46028	0.45310						
	0.44313	0.47614					AVRG		0.44489		5.26245	
36 N-Nitrosopyrrolidine	0.44520	0.48798	0.46572	0.48772	0.49286	0.50009						
	0.52474	0.49801					AVRG		0.48779		4.86862	
37 Acetophenone	1.85197	1.67920	1.80104	1.70188	1.78617	1.75164						
	1.92992	1.82258					AVRG		1.79055		4.53369	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
39 o-Toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
40 N-Nitrosopiperidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
41 Isophorone	0.67666	0.65687	0.68312	0.68591	0.71537	0.72254						
	0.72136	0.73092					AVRG		0.69909		3.83781	
42 2-Nitrophenol	0.19803	0.17142	0.19206	0.19278	0.20071	0.20863						
	0.21325	0.22261					AVRG		0.19994		7.78917	
43 2,4-Dimethylphenol	0.36540	0.38403	0.40843	0.40393	0.41626	0.42531						
	0.42821	0.43446					AVRG		0.40825		5.76809	
44 bis(2-Chloroethoxy)methane	0.40427	0.40058	0.40197	0.38543	0.41026	0.40321						
	0.41686	0.42526					AVRG		0.40598		2.92381	
45 O,O,O-Triethyl phosphorothioa	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

TestAmerica Pittsburgh

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.29155	0.32808	0.32889	0.35242	0.36130	0.37216						
	0.36701	0.38264					AVRG		0.34801		8.61425	
49 Benzoic Acid	+++++	0.13397	0.15895	0.17115	0.19333	0.19483						
	0.19593	0.18882					AVRG		0.17671		13.25932	
50 1,2,4-Trichlorobenzene	0.44560	0.41197	0.40508	0.42154	0.44804	0.44900						
	0.44791	0.46892					AVRG		0.43726		5.01173	
51 Naphthalene	1.11327	1.03834	1.04638	1.06512	1.11311	1.15604						
	1.17490	1.25449					AVRG		1.12020		6.54192	
52 4-Chloroaniline	0.35163	0.40134	0.40585	0.41230	0.43819	0.45092						
	0.45102	0.47796					AVRG		0.42365		9.26491	

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TestAmerica Pittsburgh

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
53 a,a-Dimethyl-phenethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
54 2,6-Dichlorophenol	0.31928	0.34441	0.32545	0.34987	0.36180	0.36577						
	0.36742	0.38432					AVRG		0.35229		6.26031	
55 Hexachloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
56 Hexachlorobutadiene	0.33940	0.30308	0.32302	0.32900	0.32862	0.34306						
	0.33991	0.34620					AVRG		0.33154		4.23080	
208 Caprolactam	+++++	0.07392	0.07110	0.07651	0.08644	0.08817						
	0.08746	0.08297					AVRG		0.08094		8.66148	
57 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
58 N-Nitrosodi-n-butylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

C0H200635

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Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
59 4-Chloro-3-Methylphenol	0.30085	0.28790	0.32530	0.31344	0.34200	0.33975						
	0.33910	0.34740					AVRG		0.32447		6.68981	
60 p-Phenylene diamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
61 Safrole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
62 2-Methylnaphthalene	0.65987	0.70775	0.67174	0.71813	0.73548	0.77187						
	0.77493	0.83066					AVRG		0.73380		7.77178	
63 1-Methylnaphthalene	0.65531	0.64127	0.66656	0.66946	0.70925	0.74232						
	0.73543	0.79562					AVRG		0.70190		7.56629	
64 Hexachlorocyclopentadiene	+++++	24171	47903	140586	307034	578980						
	892422	1282765					QUAD	0.12884	2.01602	-0.02173	0.99977	
65 1,2,4,5-Tetrachlorobenzene	0.60856	0.74627	0.69042	0.74566	0.74387	0.79189						
	0.77210	0.79573					AVRG		0.73681		8.36156	

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
66 2,4,6-Trichlorophenol	0.33351	0.38151	0.40809	0.42069	0.44231	0.48838						
	0.45940	0.48710					AVRG		0.42762		12.45857	
67 2,4,5-Trichlorophenol	0.39559	0.45635	0.47436	0.46657	0.48518	0.48394						
	0.49992	0.47707					AVRG		0.46737		6.79903	
209 1,1'-Biphenyl	1.46974	1.41976	1.40517	1.43534	1.41254	1.55141						
	1.57578	1.63018					AVRG		1.48749		5.80852	
68 1,2,3,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
69 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
70 2-Chloronaphthalene	1.13893	1.15869	1.14742	1.19094	1.19107	1.26977						
	1.28844	1.29147					AVRG		1.20959		5.29202	
71 Isosafrole 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
M 188 Isosafrole, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
72 Isosafrole 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
73 2-Nitroaniline	0.22991	0.30854	0.32476	0.33813	0.34648	0.36971						
	0.35178	0.35033					AVRG		0.32746		13.28964	
74 1,2,3,4-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
75 1,4-Naphthoquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
76 Dimethylphthalate	1.22331	1.25077	1.22494	1.24112	1.22873	1.31816						
	1.28609	1.30765					AVRG		1.26010		3.04827	
77 m-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
78 2,6-Dinitrotoluene	0.21453	0.23308	0.22598	0.26203	0.26612	0.28241						
	0.27868	0.27821					AVRG		0.25513		10.45890	
79 Acenaphthylene	1.57946	1.56872	1.58694	1.56688	1.59435	1.71821						
	1.73038	1.78358					AVRG		1.64106		5.34636	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	+++++	0.24526	0.23923	0.26426	0.27325	0.27948						
	0.27230	0.27145					AVRG		0.26361		5.82301	
82 Acenaphthene	1.02067	1.01984	1.01431	1.05707	1.06299	1.12184						
	1.12807	1.17606					AVRG		1.07511		5.59922	
83 2,4-Dinitrophenol	5945	15425	53358	106075	175947	220429						
	351373	485102					QUAD	0.24015	5.15773	-0.11946	0.99885	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
85 4-Nitrophenol	0.19633	0.22856	0.24557	0.25767	0.26230	0.27137						
	0.26943	0.26281					AVRG		0.24926		10.24428	
86 Dibenzofuran	1.67793	1.62505	1.59319	1.65724	1.66640	1.76808						
	1.77037	1.83504					AVRG		1.69916		4.88804	
87 2,4-Dinitrotoluene	0.26031	0.37183	0.35273	0.36973	0.36661	0.38599						
	0.37887	0.38543					AVRG		0.35894		11.50521	
88 2,3,4,6-Tetrachlorophenol	0.40720	0.41892	0.44890	0.44378	0.44616	0.47098						
	0.46490	0.46612					AVRG		0.44587		5.11318	
89 1-Naphthylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
90 Zinophos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
91 2,3,5,6-Tetrachlorophenol	0.33621	0.39662	0.42786	0.41806	0.43115	0.46912						
	0.47062	0.49266					AVRG		0.43029		11.50819	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
92 2-Naphthylamine	0.44999	0.49344	0.50208	0.50685	0.48561	0.48147						
	0.44492	0.43667					AVRG		0.47513		5.75941	
93 Diethylphthalate	1.15510	1.29536	1.19958	1.23522	1.26497	1.29925						
	1.32167	1.32939					AVRG		1.26257		4.88697	
94 Fluorene	1.39925	1.22455	1.29664	1.33785	1.34802	1.47652						
	1.53382	1.62228					AVRG		1.40487		9.35905	
95 4-Chlorophenyl-phenylether	0.80999	0.74364	0.74028	0.74888	0.78822	0.82237						
	0.82969	0.85167					AVRG		0.79184		5.46587	
96 4-Nitroaniline	0.19189	0.26562	0.26484	0.25590	0.27417	0.30776						
	0.29501	0.31139					AVRG		0.27082		14.04167	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	0.09881	0.12599	0.14045	0.14020	0.14982						
	0.15224	0.15345					AVRG		0.13728		14.16430	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
99 N-Nitrosodiphenylamine (1)	0.52660	0.51092	0.51409	0.52467	0.52775	0.53159						
	0.55985	0.52894					AVRG		0.52805		2.79541	
100 1,2-Diphenylhydrazine	0.74891	0.82668	0.80882	0.83939	0.85159	0.82194						
	0.82018	0.79698					AVRG		0.81431		3.84789	
101 Diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
202 N-Nitroso&Diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
102 Tetraethyl dithiopyrophosphat	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
103 Diallate 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 189 Diallate, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
104 Phorate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
105 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
106 4-Bromophenyl-phenylether	0.28334	0.25310	0.26730	0.28150	0.28210	0.28437						
	0.28870	0.28019					AVRG		0.27757		4.19786	
107 Hexachlorobenzene	0.27550	0.27660	0.26625	0.26610	0.26953	0.27694						
	0.29085	0.28064					AVRG		0.27530		2.99104	
210 Atrazine	0.10638	0.11353	0.11351	0.12254	0.13191	0.12222						
	0.12700	0.11968					AVRG		0.11960		6.85561	
108 Phenacetin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
109 Diallate 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1 / 50.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	15003	35612	97319	192411	316223	398001						
	625719	896311					QUAD	0.16356	5.17930	-0.11509	0.99935	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.00480	1.14264	1.11199	1.17572	1.18241	1.18138						
	1.23415	1.23307					AVRG		1.15827		6.42043	
116 Anthracene	1.05201	1.18076	1.12841	1.21882	1.19107	1.22734						
	1.26697	1.25934					AVRG		1.19059		6.01283	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.86998	0.96974	0.96784	0.96341	0.97641	0.97372	1.02994	0.99454	AVRG		0.96820		4.66430	
120 Di-n-Butylphthalate	0.86186	1.02009	1.10413	1.14220	1.20161	1.21043	1.26296	1.23445	AVRG		1.12972		11.82767	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.26157	1.29249	1.32966	1.32856	1.37788	1.39686	1.46781	1.42899	AVRG		1.36048		5.13879	

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	60.0000 Level 7	80.0000 Level 8										
124 Benzidine	+++++	+++++	40351	143236	357935	788305						
	1280605	1775699					QUAD	0.37300	3.14176	-0.06554	0.99922	
125 Pyrene	1.02574	1.09780	1.12184	1.16541	1.17507	1.14596						
	1.18337	1.21808					AVRG		1.14166		5.23791	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
130 Famphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.27631	0.38682	0.39782	0.43034	0.43034	0.42612						
	0.44859	0.45286					AVRG		0.40615		14.06845	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	+++++	0.31480	0.37288	0.39483	0.42824	0.45493						
	0.47542	0.47486					AVRG		0.41657		14.27206	
136 Benzo(a)Anthracene	1.07822	1.17092	1.15159	1.18757	1.13322	1.17048						
	1.20643	1.23036					AVRG		1.16610		4.00554	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
137 Chrysene	0.98456	1.12098	1.14919	1.12181	1.14506	1.12478						
	1.22015	1.23644					AVRG		1.13787		6.71645	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.44441	0.52446	0.55231	0.59289	0.62301	0.61572						
	0.63678	0.64600					AVRG		0.57945		11.86850	
140 Di-n-octylphthalate	+++++	0.75255	0.81084	0.93467	1.02772	1.02719						
	1.00144	1.05257					AVRG		0.94385		12.49767	
141 Benzo(b)fluoranthene	1.24225	1.06996	1.14476	1.30795	1.35668	1.28608						
	1.29812	1.47684					AVRG		1.27283		9.81242	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	1.03562	1.37461	1.39261	1.40862	1.43393	1.50040						
	1.39934	1.33943					AVRG		1.36057		10.24515	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
143 7,12-dimethylbenz[a]anthracen	0.48215	0.58640	0.59226	0.62697	0.64700	0.64250						
	0.62276	0.64033					AVRG		0.60505		9.01275	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	1.06881	1.09239	1.06286	1.08262	1.19586	1.17504						
	1.15486	1.18017					AVRG		1.12658		4.89857	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	27999	163296	330803	877322	1954853	3970013						
	6550756	8427755					QUAD	0.09448	0.68724	0.00200	0.99955	
150 Dibenz(a,h)anthracene	17199	132744	264678	719700	1590355	3196126						
	5211060	6784124					QUAD	0.08443	0.85944	0.00292	0.99982	

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TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	22098	150385	299801	793288	1705188	3458604						
	5604086	7281551					QUAD	0.07437	0.79454	0.00312	0.99981	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

(1-389)

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C0H200635

(1-389)

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
217 Indene	2.20299	2.31522	2.20333	2.22556	2.31093	2.37790						
	2.56833	2.51427					AVRG		2.33982		5.95602	
218 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
219 1,4-Dithiane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
220 1,4-Oxathiane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
221 Benzothiazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
222 Dimethyl Disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
223 p-Chlorophenylmethylsulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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C0H200635

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
224 p-Chlorophenylmethylsulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
225 p-Chlorophenylmethylsulfoxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
$ 154 Nitrobenzene-d5	0.35455	0.43059	0.45576	0.42886	0.46185	0.46834						
	0.46288	0.47081					AVRG		0.44170		8.76559	
$ 155 2-Fluorobiphenyl	1.27721	1.35822	1.28180	1.35570	1.35884	1.44745						
	1.45398	1.51142					AVRG		1.38058		6.06115	
$ 156 Terphenyl-d14	0.74200	0.81244	0.81181	0.79463	0.82981	0.83447						
	0.85351	0.88690					AVRG		0.82070		5.20083	
$ 157 Phenol-d5	1.55467	1.54335	1.61245	1.58489	1.61677	1.61862						
	1.76384	1.66361					AVRG		1.61977		4.30512	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	60.0000 Level 7	80.0000 Level 8									
$ 158 2-Fluorophenol	1.22077	1.20585	1.16961	1.24126	1.27071	1.25422					
	1.37135	1.26209					AVRG		1.24948		4.75030
$ 159 2,4,6-Tribromophenol	0.09620	0.10874	0.09823	0.11139	0.11562	0.12475					
	0.13102	0.12799					AVRG		0.11424		11.47482
$ 186 2-Chlorophenol-d4	1.46469	1.25822	1.36230	1.32890	1.35426	1.34164					
	1.43980	1.38139					AVRG		1.36640		4.72345
$ 187 1,2-Dichlorobenzene-d4	1.19609	0.99962	0.96207	1.01166	1.03496	1.02765					
	1.13294	1.08672					AVRG		1.05646		7.30577

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0826DF1 DFTPP Injection Date: 08/26/10

Instrument ID: 731 DFTPP Injection Time: 1157

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.7
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	46.8
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.0% of mass 198	3.71
441	Present, but less than mass 443	7.7
442	40.0 - 99.0% of mass 198	52.8
443	17.0 - 23.0% of mass 442	11.1 (21.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08260CC	08/26/10	1215
02	INTRA-LAB BL	L532P1AA	V0826002	08/26/10	1236
03	INTRA-LAB CH	L532P1AC	V0826003	08/26/10	1256
04	SD-106-SS	L5X1V1AC	V0826004	08/26/10	1338
05	SD-106-01	L5X101AC	V0826005	08/26/10	1359
06	SD-106-01 MS	L5X101AU	V0826006	08/26/10	1420
07	SD-106-01 MS	L5X101AV	V0826007	08/26/10	1440
08	SD-106-02	L5X111AC	V0826008	08/26/10	1501
09	SD-106-04	L5X121AC	V0826009	08/26/10	1522
10	SD-100-SS	L5X131AC	V0826010	08/26/10	1542
11	SD-100-01	L5X151AC	V0826011	08/26/10	1603
12	SD-100-02	L5X161AC	V0826012	08/26/10	1624
13	SD-100-04	L5X171AC	V0826013	08/26/10	1644
14	SD-98-SS	L5X181AC	V0826014	08/26/10	1705
15	SD-98-01	L5X191AC	V0826015	08/26/10	1725
16	SD-98-02	L5X2A1AC	V0826016	08/26/10	1746
17	SD-DUP4-02	L5X2C1AC	V0826017	08/26/10	1806
18	SD-98-04	L5X2D1AC	V0826018	08/26/10	1827
19	SD-96-SS	L5X2E1AC	V0826019	08/26/10	1847
20	SD-96-01	L5X2F1AC	V0826020	08/26/10	1907
21	SD-96-02	L5X2H1AC	V0826021	08/26/10	1928
22	SD-96-04	L5X2J1AC	V0826022	08/26/10	1949

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0826DF1 DFTPP Injection Date: 08/26/10

Instrument ID: 731 DFTPP Injection Time: 1157

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.7
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	46.8
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.0% of mass 198	3.71
441	Present, but less than mass 443	7.7
442	40.0 - 99.0% of mass 198	52.8
443	17.0 - 23.0% of mass 442	11.1 (21.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-88-SS	L5X2M1AD	V0826023	08/26/10	2010
02	SD-88-01	L5X2P1AJ	V0826024	08/26/10	2031
03	SD-88-02	L5X2T1AP	V0826025	08/26/10	2051
04	SD-88-04	L5X2W1AC	V0826026	08/26/10	2112
05	SD-89-SS	L5X201AV	V0826027	08/26/10	2133
06	SD-89-01	L5X211A2	V0826028	08/26/10	2154
07	SD-DUP5-01	L5X241AC	V0826029	08/26/10	2214
08	SD-89-02	L5X261AD	V0826030	08/26/10	2235
09	SD-99-SS	L5X3A1AD	V0826031	08/26/10	2256
10	SD-99-01	L5X3D1AJ	V0826032	08/26/10	2317
11	SD-99-02	L5X3F1AP	V0826033	08/26/10	2338
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08260CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082610.b\827011.m

Injection Date: 26-AUG-2010 12:15
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	4.02582	0.51654	0.010	-0.64554	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.69883	0.69883	0.010	-13.54681	25.00000	Averaged	
9 Pyridine	1.20894	1.30842	1.30842	0.010	-8.22835	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.87376	0.87376	0.010	-15.03893	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.06064	0.80347	0.010	-26.51598	25.00000	Quadratic	<-
21 Aniline	1.78238	1.79336	1.79336	0.010	-0.61615	25.00000	Averaged	
22 Phenol	1.78991	1.71815	1.71815	0.010	4.00941	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.16182	1.16182	0.010	-3.74425	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.29817	1.29817	0.010	4.96721	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.57259	1.57259	0.010	7.47731	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.57395	1.57395	0.010	7.02290	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.46655	1.46655	0.010	8.97666	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.70904	0.70904	0.010	14.65341	25.00000	Averaged	
30 2-Methylphenol	1.23988	1.14637	1.14637	0.010	7.54195	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.50496	1.50496	0.010	-9.73194	25.00000	Averaged	
37 Acetophenone	1.79055	1.85735	1.85735	0.010	-3.73047	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.01423	1.01423	0.050	-5.99374	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.22160	1.22160	0.010	8.47579	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.70023	0.70023	0.010	3.14531	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.49115	0.49115	0.010	-10.39725	25.00000	Averaged	
41 Isophorone	0.69909	0.72907	0.72907	0.010	-4.28820	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.18907	0.18907	0.010	5.43691	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.41195	0.41195	0.010	-0.90660	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.41735	0.41735	0.010	-2.80050	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.32341	0.32341	0.010	7.06705	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.14559	0.14559	0.010	17.61206	25.00000	Averaged	
50 1,2,4-Trichlorobenzene	0.43726	0.41482	0.41482	0.010	5.13097	25.00000	Averaged	
51 Naphthalene	1.12020	1.02705	1.02705	0.010	8.31545	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.37409	0.37409	0.010	11.69727	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.30919	0.30919	0.010	12.23488	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.31326	0.31326	0.010	5.51222	20.00000	Averaged	
208 Caprolactam	0.08094	0.07745	0.07745	0.010	4.30988	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.33470	0.33470	0.010	-3.15392	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.68002	0.68002	0.010	7.32883	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.65400	0.65400	0.010	6.82476	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.98967	0.36766	0.050	0.25813	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.42920	0.42920	0.010	-0.36842	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.42845	0.42845	0.010	8.32834	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.38010	1.38010	0.010	7.21940	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.18799	1.18799	0.010	1.78599	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.43570	0.43570	0.010	-33.05769	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.31811	1.31811	0.010	-4.60410	25.00000	Averaged	

NA
NA

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08260CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082610.b\827011.m

Injection Date: 26-AUG-2010 12:15
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.28472	0.28472	0.010	-11.59794	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.58985	1.58985	0.010	3.12088	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.27722	0.27722	0.010	-5.16333	25.00000	Averaged	
82 Acenaphthene	1.07511	1.10060	1.10060	0.010	-2.37138	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	10.09002	0.15911	0.050	-0.90022	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.29974	0.29974	0.050	-20.25436	25.00000	Averaged	
86 Dibenzofuran	1.69916	1.67281	1.67281	0.010	1.55085	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.41376	0.41376	0.010	-15.27292	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.38542	0.38542	0.010	10.42834	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.38138	0.38138	0.010	14.46432	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.41639	0.41639	0.010	12.36323	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.44615	1.44615	0.010	-14.54008	25.00000	Averaged	
94 Fluorene	1.40487	1.26648	1.26648	0.010	9.85035	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.75328	0.75328	0.010	4.86981	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.30216	0.30216	0.010	-11.57086	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.13162	0.13162	0.010	4.12326	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.47819	0.47819	0.010	9.44184	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	0.94227	0.94227	0.010	-15.71350	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.27757	0.23943	0.23943	0.010	13.74057	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.23963	0.23963	0.010	12.95871	25.00000	Averaged	
210 Atrazine	0.11960	0.10158	0.10158	0.010	15.06709	25.00000	Averaged	
111 Pentachlorophenol	10.00000	9.24768	0.15395	0.010	7.52319	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.09219	1.09219	0.010	5.70486	25.00000	Averaged	
116 Anthracene	1.19059	1.13534	1.13534	0.010	4.64088	25.00000	Averaged	
119 Carbazole	0.96820	0.93672	0.93672	0.010	3.25126	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.17864	1.17864	0.010	-4.33024	25.00000	Averaged	
123 Fluoranthene	1.36048	1.22355	1.22355	0.010	10.06469	20.00000	Averaged	
124 Benzidine	4.00000	5.26976	0.18223	0.010	-31.74403	25.00000	Quadratic	<-
125 Pyrene	1.14166	1.08327	1.08327	0.010	5.11463	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.48477	0.48477	0.010	-19.35645	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.38290	0.38290	0.010	8.08159	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.09864	1.09864	0.010	5.78481	25.00000	Averaged	
137 Chrysene	1.13787	1.01205	1.01205	0.010	11.05741	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.69171	0.69171	0.010	-19.37472	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.05059	1.05059	0.010	-11.30838	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.30021	1.30021	0.010	-2.15086	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.11462	1.11462	0.010	18.07655	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.52705	0.52705	0.010	12.89087	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	0.98456	0.98456	0.010	12.60577	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	3.80141	1.10611	0.010	4.96482	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	3.87808	0.93015	0.010	3.04788	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.73966	0.98755	0.010	6.50842	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 26-AUG-2010 12:15
Lab File ID: V08260CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082610.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.49126	0.49126	0.010	-11.21936	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.29244	1.29244	0.010	6.38439	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.75463	0.75463	0.010	8.05040	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.61846	1.61846	0.010	0.08133	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.23023	1.23023	0.010	1.54109	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.08971	0.08971	0.010	21.47309 NA	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.29062	1.29062	0.010	5.54605	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	0.99481	0.99481	0.010	5.83612	25.00000	Averaged

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0827DF1 DFTPP Injection Date: 08/27/10

Instrument ID: 731 DFTPP Injection Time: 0917

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.5
68	Less than 2.0% of mass 69	0.5 (0.8)1
69	Mass 69 relative abundance	66.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	24.6
365	Greater than 1.0% of mass 198	4.26
441	Present, but less than mass 443	7.5
442	40.0 - 99.0% of mass 198	56.5
443	17.0 - 23.0% of mass 442	11.8 (20.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08270CC	08/27/10	1020
02	INTRA-LAB BL	L532T1AA	V0827001	08/27/10	1042
03	INTRA-LAB CH	L532T1AC	V0827002	08/27/10	1126
04	SD-89-04	L5X291AC	V0827003	08/27/10	1232
05	SD-89-04 MS	L5X291A4	V0827004	08/27/10	1254
06	SD-89-04 MSD	L5X291A5	V0827005	08/27/10	1316
07					
08					
09					
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11					
12					
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14					
15					
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19					
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22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08270CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082710.b\827011.m

Injection Date: 27-AUG-2010 10:20
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	3.76209	0.48745	0.010	5.94784	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.69503	0.69503	0.010	-12.92919	25.00000	Averaged	
9 Pyridine	1.20894	1.44816	1.44816	0.010	-19.78724	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.87988	0.87988	0.010	-15.84538	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.10016	0.81420	0.010	-27.50389	25.00000	Quadratic	<-
21 Aniline	1.78238	1.75640	1.75640	0.010	1.45780	25.00000	Averaged	
22 Phenol	1.78991	1.76930	1.76930	0.010	1.15152	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.14634	1.14634	0.010	-2.36202	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.33986	1.33986	0.010	1.91568	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.66881	1.66881	0.010	1.81638	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.68210	1.68210	0.010	0.63404	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.58214	1.58214	0.010	1.80270	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.42897	0.42897	0.010	48.36481	25.00000	Averaged	<-
30 2-Methylphenol	1.23988	1.25513	1.25513	0.010	-1.22982	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.55827	1.55827	0.010	-13.61936	25.00000	Averaged	
37 Acetophenone	1.79055	1.79174	1.79174	0.010	-0.06620	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.02601	1.02601	0.050	-7.22485	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.23804	1.23804	0.010	7.24408	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.75460	0.75460	0.010	-4.37407	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.50633	0.50633	0.010	-13.80976	25.00000	Averaged	
41 Isophorone	0.69909	0.74017	0.74017	0.010	-5.87586	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.18783	0.18783	0.010	6.05241	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.40788	0.40788	0.010	0.09021	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.38836	0.38836	0.010	4.33992	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.31396	0.31396	0.010	9.78235	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.12351	0.12351	0.010	-30.10737	25.00000	Averaged	<-
50 1,2,4-Trichlorobenzene	0.43726	0.37568	0.37568	0.010	14.08321	25.00000	Averaged	
51 Naphthalene	1.12020	1.01989	1.01989	0.010	8.95474	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.38550	0.38550	0.010	9.00580	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.29648	0.29648	0.010	15.84321	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.30987	0.30987	0.010	6.53615	20.00000	Averaged	
208 Caprolactam	0.08094	0.07475	0.07475	0.010	7.64473	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.30298	0.30298	0.010	6.62131	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.63414	0.63414	0.010	13.58190	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.61402	0.61402	0.010	12.51984	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.96101	0.36409	0.050	0.97475	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.40955	0.40955	0.010	4.22533	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.42780	0.42780	0.010	8.46717	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.39243	1.39243	0.010	6.39046	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.18756	1.18756	0.010	1.82143	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.44977	0.44977	0.010	-37.35243	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.24345	1.24345	0.010	1.32127	25.00000	Averaged	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08270CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082710.b\8270ll.m

Injection Date: 27-AUG-2010 10:20
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.25698	0.25698	0.010	-0.72360	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.52179	1.52179	0.010	7.26831	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.22252	0.22252	0.010	15.58472	25.00000	Averaged	
82 Acenaphthene	1.07511	1.05857	1.05857	0.010	1.53823	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	8.54894	0.12898	0.050	14.51058	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.26187	0.26187	0.050	-5.06233	25.00000	Averaged	
86 Dibenzofuran	1.69916	1.53444	1.53444	0.010	9.69398	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.34116	0.34116	0.010	4.95241	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.33376	0.33376	0.010	22.43405	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.37198	0.37198	0.010	16.57223	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.35882	0.35882	0.010	24.47996	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.24797	1.24797	0.010	1.15585	25.00000	Averaged	
94 Fluorene	1.40487	1.21174	1.21174	0.010	13.74720	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.68655	0.68655	0.010	13.29711	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.23644	0.23644	0.010	12.69500	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.13073	0.13073	0.010	4.77072	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.51805	0.51805	0.010	1.89347	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	1.06017	1.06017	0.010	-30.19249	NA 25.00000	Averaged	<-
106 4-Bromophenyl-phenylether	0.27757	0.25493	0.25493	0.010	8.15658	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.25526	0.25526	0.010	7.27912	25.00000	Averaged	
210 Atrazine	0.11960	0.10795	0.10795	0.010	9.73472	25.00000	Averaged	
111 Pentachlorophenol	10.00000	8.94184	0.14799	0.010	10.58163	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.08874	1.08874	0.010	6.00303	25.00000	Averaged	
116 Anthracene	1.19059	1.12093	1.12093	0.010	5.85108	25.00000	Averaged	
119 Carbazole	0.96820	0.89450	0.89450	0.010	7.61205	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.13615	1.13615	0.010	-0.56921	25.00000	Averaged	
123 Fluoranthene	1.36048	1.16851	1.16851	0.010	14.10994	20.00000	Averaged	
124 Benzidine	4.00000	4.91711	0.15407	0.010	-22.92765	25.00000	Quadratic	
125 Pyrene	1.14166	1.16414	1.16414	0.010	-1.96938	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.46960	0.46960	0.010	-15.62280	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.39380	0.39380	0.010	5.46584	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.08784	1.08784	0.010	6.71127	25.00000	Averaged	
137 Chrysene	1.13787	0.95965	0.95965	0.010	15.66284	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.67034	0.67034	0.010	-15.68535	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.09705	1.09705	0.010	-16.23093	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.29334	1.29334	0.010	-1.61115	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.12977	1.12977	0.010	16.96366	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.49184	0.49184	0.010	18.71078	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	0.95247	0.95247	0.010	15.45455	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	3.95737	1.16266	0.010	1.06563	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	3.99710	0.96466	0.010	0.07257	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.68146	0.96930	0.010	7.96361	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08270CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V082710.b\827011.m

Injection Date: 27-AUG-2010 10:20
Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Init. Cal. Times: 07:27 09:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.49227	0.49227	0.010	-11.44817	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.32053	1.32053	0.010	4.34909	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.79295	0.79295	0.010	3.38031	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.67812	1.67812	0.010	-3.60231	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.33619	1.33619	0.010	-6.93986	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.11724	0.11724	0.010	-2.62063	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.32942	1.32942	0.010	2.70652	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	0.98117	0.98117	0.010	7.12681	25.00000	Averaged

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0830DF1 DFTPP Injection Date: 08/30/10

Instrument ID: 731 DFTPP Injection Time: 1003

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.8
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	45.9
70	Less than 2.0% of mass 69	0.5 (1.0)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	23.9
365	Greater than 1.0% of mass 198	2.43
441	Present, but less than mass 443	7.0
442	40.0 - 99.0% of mass 198	47.8
443	17.0 - 23.0% of mass 442	9.2 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0.4	SSTD0.4	V0830IC1	08/30/10	1020
02	SSTD2.0	SSTD2.0	V0830IC2	08/30/10	1042
03	SSTD4.0	SSTD4.0	V0830IC3	08/30/10	1103
04	SSTD10	SSTD10	V0830IC4	08/30/10	1125
05	SSTD20	SSTD20	V0830IC5	08/30/10	1146
06	SSTD40	SSTD40	V0830IC6	08/30/10	1208
07	SSTD60	SSTD60	V0830IC7	08/30/10	1230
08	SSTD80	SSTD80	V0830IC8	08/30/10	1251
09					
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19					
20					
21					
22					

Report Date : 30-Aug-2010 13:19

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
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Calibration File Names:
Level 1: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC1.D
Level 2: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC2.D
Level 3: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC3.D
Level 4: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC4.D
Level 5: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC5.D
Level 6: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC6.D
Level 7: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC7.D
Level 8: \\PITSVR06\D\chem\731.i\V083010.b\V0830IC8.D

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
198 1,4-Dioxane	+++++	0.46610	0.41000	0.41694	0.37695	0.35590						
	0.37219	0.37385					AVRG		0.39599		9.54782	
226 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
227 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
7 N-Nitrosomorpholine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
8 Ethyl methanesulfonate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
9 Pyridine	0.99000	1.13284	1.11724	1.15092	1.15679	1.04957						
	1.14501	1.10437					AVRG		1.10584		5.25153	
199 Thionazin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
200 Sulfotepp	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
10 N-Nitrosodimethylamine	0.51609	0.51980	0.50491	0.57047	0.58272	0.51803						
	0.57785	0.55291					AVRG		0.54285		5.81769	
11 Ethyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
12 3-Chloropropionitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
13 Malononitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
14 2-Picoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
15 N-Nitrosomethylethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
16 Methyl methanesulfonate	0.78645	0.79030	0.77191	0.78991	0.78294	0.71257						
	0.76109	0.71596					AVRG		0.76389		4.21288	
18 1,3-Dichloro-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
19 N-Nitrosodiethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
21 Aniline	1.98469	1.92159	1.98725	2.01797	2.09254	1.92763						
	2.11863	2.04950					AVRG		2.01248		3.56084	
206 Benzaldehyde	1.12038	1.08283	1.00899	1.05536	1.04354	0.72293						
	+++++	+++++					AVRG		1.00567		14.26949	
22 Phenol	1.64440	1.77115	1.64510	1.74440	1.76044	1.64632						
	1.79154	1.76029					AVRG		1.72046		3.69847	
23 bis(2-Chloroethyl)ether	1.03759	1.13251	1.09612	1.13092	1.10304	1.01394						
	1.10064	1.07133					AVRG		1.08576		3.89825	
24 2-Chlorophenol	1.08169	1.33577	1.33817	1.36522	1.37437	1.29590						
	1.40508	1.36031					AVRG		1.31956		7.67597	
25 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
26 1,3-Dichlorobenzene	1.52940	1.50138	1.56258	1.64480	1.62164	1.53975						
	1.67801	1.63326					AVRG		1.58885		4.00991	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
27 1,4-Dichlorobenzene	1.56641	1.64832	1.62032	1.64384	1.62809	1.57144						
	1.70655	1.65859					AVRG		1.63044		2.81757	
28 1,2-Dichlorobenzene	1.50345	1.53249	1.49122	1.55496	1.59288	1.47551						
	1.60180	1.58123					AVRG		1.54169		3.14429	
29 Benzyl Alcohol	0.64586	0.75604	0.81163	0.81228	0.87803	0.83232						
	0.88446	0.86798					AVRG		0.81108		9.76210	
30 2-Methylphenol	1.10067	1.18658	1.23113	1.20223	1.30374	1.19293						
	1.25678	1.20443					AVRG		1.20981		4.87075	
31 2,2'-oxybis(1-Chloropropane)	1.14080	1.29298	1.24303	1.26995	1.26405	1.17966						
	1.27756	1.28604					AVRG		1.24426		4.41847	
32 N-Nitroso-di-n-propylamine	0.94314	0.90732	0.97169	0.94715	1.00549	0.91249						
	0.98770	0.93340					AVRG		0.95105		3.66863	
M 195 Cresols, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
192 4-Methylphenol	1.25183	1.20258	1.20702	1.20469	1.26735	1.14662						
	1.25651	1.20667					AVRG		1.21791		3.22832	
203 3&4-Methylphenol total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
193 3-Methylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
34 Hexachloroethane	0.74079	0.71811	0.70529	0.75797	0.76030	0.69926						
	0.75113	0.71165					AVRG		0.73056		3.39040	
35 Nitrobenzene	0.39111	0.42548	0.40942	0.41031	0.40528	0.40294						
	0.40876	0.40937					AVRG		0.40783		2.33274	
36 N-Nitrosopyrrolidine	0.42621	0.48372	0.50875	0.50065	0.55485	0.50884						
	0.54562	0.52398					AVRG		0.50658		7.89058	
37 Acetophenone	2.02615	1.75583	1.92643	1.90094	1.92356	1.78586						
	1.89910	1.84463					AVRG		1.88281		4.56370	

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
39 o-Toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
40 N-Nitrosopiperidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
41 Isophorone	0.60489	0.64665	0.62484	0.63551	0.63461	0.66074						
	0.64719	0.65851					AVRG		0.63912		2.88170	
42 2-Nitrophenol	+++++	0.17196	0.16919	0.18407	0.18756	0.19666						
	0.19699	0.20233					AVRG		0.18697		6.83614	
43 2,4-Dimethylphenol	0.39392	0.40908	0.38740	0.38646	0.38149	0.39379						
	0.38709	0.38987					AVRG		0.39114		2.12482	
44 bis(2-Chloroethoxy)methane	0.36237	0.38669	0.37615	0.37984	0.37071	0.38470						
	0.37711	0.38447					AVRG		0.37775		2.16171	
45 O,O,O-Triethyl phosphorothioa	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.29385	0.31695	0.30448	0.32811	0.30969	0.32011						
	0.32648	0.33864					AVRG		0.31729		4.51502	
49 Benzoic Acid	0.12825	0.14265	0.16824	0.17287	0.18386	0.19500						
	0.19362	0.18838					AVRG		0.17161		14.26381	
50 1,2,4-Trichlorobenzene	0.38873	0.38870	0.38886	0.38607	0.37679	0.38520						
	0.39608	0.40167					AVRG		0.38901		1.90117	
51 Naphthalene	1.00725	1.02275	1.02260	1.03190	1.05622	1.08736						
	1.14026	1.09785					AVRG		1.05827		4.37012	
52 4-Chloroaniline	0.41801	0.43006	0.42683	0.42547	0.44105	0.44951						
	0.45490	0.46071					AVRG		0.43832		3.54155	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
53 a,a-Dimethyl-phenethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
54 2,6-Dichlorophenol	0.30166	0.30284	0.31508	0.31898	0.31466	0.32156						
	0.32971	0.33193					AVRG		0.31705		3.48360	
55 Hexachloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
56 Hexachlorobutadiene	0.27177	0.28685	0.27428	0.28008	0.27380	0.28138						
	0.28345	0.28521					AVRG		0.27960		2.03020	
208 Caprolactam	0.06620	0.07894	0.08139	0.08554	0.08618	0.08693						
	0.07604	0.08632					AVRG		0.08094		8.84809	
57 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
58 N-Nitrosodi-n-butylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
59 4-Chloro-3-Methylphenol	0.28845	0.31544	0.34281	0.31772	0.31857	0.33467						
	0.32444	0.32809					AVRG		0.32127		5.03439	
60 p-Phenylene diamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
61 Safrole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
62 2-Methylnaphthalene	0.74010	0.72843	0.71687	0.72103	0.72712	0.73683						
	0.77476	0.78908					AVRG		0.74178		3.52886	
63 1-Methylnaphthalene	0.66284	0.73411	0.70711	0.70551	0.70780	0.72592						
	0.73543	0.76409					AVRG		0.71785		4.13616	
64 Hexachlorocyclopentadiene	0.41341	0.40073	0.45586	0.47365	0.48648	0.50398						
	0.51926	0.53581					AVRG		0.47365		10.18512	
65 1,2,4,5-Tetrachlorobenzene	0.69308	0.62676	0.61675	0.61145	0.60019	0.61825						
	0.62245	0.62757					AVRG		0.62706		4.48226	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
66 2,4,6-Trichlorophenol	0.32983	0.37548	0.40925	0.37458	0.39954	0.40367						
	0.44547	0.46506					AVRG		0.40036		10.58459	
67 2,4,5-Trichlorophenol	0.38038	0.42622	0.42236	0.43461	0.41732	0.42844						
	0.41166	0.40091					AVRG		0.41524		4.22864	
209 1,1'-Biphenyl	1.29059	1.34346	1.36135	1.30981	1.36071	1.39796						
	1.46560	1.49571					AVRG		1.37815		5.20254	
68 1,2,3,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
69 1,4-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
70 2-Chloronaphthalene	1.16024	1.08193	1.13656	1.08095	1.10658	1.11605						
	1.16107	1.18953					AVRG		1.12911		3.49815	
71 Isosafrole 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
M 188 Isosafrole, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
72 Isosafrole 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
73 2-Nitroaniline	0.28819	0.31864	0.34062	0.32932	0.32015	0.33553						
	0.32395	0.32947					AVRG		0.32323		4.94463	
74 1,2,3,4-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
75 1,4-Naphthoquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
76 Dimethylphthalate	1.26683	1.32604	1.30162	1.22791	1.22388	1.28489						
	1.25312	1.28767					AVRG		1.27150		2.79656	
77 m-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	0.17629	0.25194	0.26070	0.26123	0.26028	0.27795						
	0.26835	0.27990					AVRG		0.25458		12.96626	
79 Acenaphthylene	1.58590	1.64577	1.73304	1.69537	1.69340	1.76699						
	1.81577	1.80313					AVRG		1.71742		4.57491	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	0.20207	0.25690	0.27711	0.27221	0.25718	0.27107						
	0.26161	0.27114					AVRG		0.25866		9.29953	
82 Acenaphthene	1.09841	1.05547	1.11365	1.04496	1.06187	1.09180						
	1.09300	1.11760					AVRG		1.08459		2.50871	
83 2,4-Dinitrophenol	11138	23156	77460	137812	275155	320338						
	563036	747955					QUAD	0.15244	6.40992	-0.53007	0.99935	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
85 4-Nitrophenol	0.20716	0.24198	0.24679	0.24352	0.23163	0.23946						
	0.23719	0.24731					AVRG		0.23688		5.51599	
86 Dibenzofuran	1.68165	1.72753	1.74024	1.61808	1.65853	1.70676						
	1.72169	1.75686					AVRG		1.70142		2.70965	
87 2,4-Dinitrotoluene	0.35460	0.36623	0.39201	0.38316	0.37619	0.38205						
	0.37578	0.38314					AVRG		0.37664		3.08517	
88 2,3,4,6-Tetrachlorophenol	0.33308	0.39768	0.43262	0.41193	0.40939	0.39843						
	0.40091	0.38868					AVRG		0.39659		7.26865	
89 1-Naphthylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
90 Zinophos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
91 2,3,5,6-Tetrachlorophenol	0.34696	0.39023	0.41138	0.39076	0.39679	0.42619						
	0.43200	0.44865					AVRG		0.40537		7.79010	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
92 2-Naphthylamine	1.06564	1.10094	1.11607	0.99852	0.95205	0.90728						
	0.81797	0.81781					AVRG		0.97204		12.23065	
93 Diethylphthalate	1.29068	1.33464	1.35232	1.32358	1.28194	1.31463						
	1.31190	1.32245					AVRG		1.31652		1.71848	
94 Fluorene	1.37483	1.44744	1.43257	1.33797	1.32135	1.35318						
	1.36009	1.40972					AVRG		1.37965		3.30369	
95 4-Chlorophenyl-phenylether	0.78531	0.77707	0.77011	0.73071	0.72129	0.72235						
	0.72333	0.72774					AVRG		0.74474		3.70514	
96 4-Nitroaniline	0.23448	0.28610	0.28687	0.28371	0.27427	0.28737						
	0.27606	0.28104					AVRG		0.27624		6.35994	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	0.09675	0.11233	0.12703	0.13147	0.13069						
	0.13881	0.13735					AVRG		0.12493		12.14125	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
99 N-Nitrosodiphenylamine (1)	0.48230	0.46751	0.46983	0.46484	0.46426	0.47466						
	0.48082	0.49601					AVRG		0.47503		2.29241	
100 1,2-Diphenylhydrazine	0.74346	0.78357	0.81729	0.82357	0.82716	0.80080						
	0.82159	0.81016					AVRG		0.80345		3.49946	
101 Diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
202 N-Nitroso&Diphenylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
102 Tetraethyl dithiopyrophosphat	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
103 Diallate 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 189 Diallate, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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	60.0000 Level 7	80.0000 Level 8										
104 Phorate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
105 1,3,5-Trinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
106 4-Bromophenyl-phenylether	0.20647	0.21591	0.23100	0.22922	0.23488	0.23237						
	0.23503	0.23308					AVRG		0.22724		4.57681	
107 Hexachlorobenzene	0.23920	0.22643	0.23912	0.23555	0.24470	0.24174						
	0.24809	0.23836					AVRG		0.23915		2.70414	
210 Atrazine	0.21630	0.21169	0.21692	0.21787	0.21373	0.21362						
	0.21828	0.21326					AVRG		0.21521		1.13188	
108 Phenacetin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
109 Diallate 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	0.10770	0.13657	0.15071	0.15449	0.15937	0.16379						
	0.17122	0.16976					AVRG		0.15170		13.84056	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.13443	1.13380	1.07960	1.11361	1.11779	1.13774						
	1.16165	1.15887					AVRG		1.12969		2.33888	
116 Anthracene	1.10098	1.14154	1.13591	1.14297	1.12385	1.13280						
	1.15656	1.06687					AVRG		1.12519		2.54248	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	1.02425	0.99031	0.97505	1.00601	0.94834	0.96679						
	0.99280	0.98937					AVRG		0.98662		2.37502	
120 Di-n-Butylphthalate	1.06700	1.20459	1.17559	1.25955	1.21962	1.24089						
	1.25853	1.14144					AVRG		1.19590		5.53121	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.31847	1.40696	1.33307	1.43590	1.32478	1.34908						
	1.34847	1.21552					AVRG		1.34153		4.88433	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
124 Benzidine	+++++	0.29312	0.30336	0.31426	0.32761	0.36124						
	0.36231	0.37479					AVRG		0.33382		9.66653	
125 Pyrene	1.08656	1.12899	1.14506	1.15895	1.20806	1.18391						
	1.15518	1.15022					AVRG		1.15212		3.12668	
126 Aramite I	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
130 Pamphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.36593	0.39914	0.41314	0.44586	0.44732	0.44640						
	0.46252	0.47957					AVRG		0.43248		8.57457	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	0.27096	0.30426	0.32728	0.34384	0.37202	0.38677						
	0.37897	0.38169					AVRG		0.34572		12.18714	
136 Benzo(a)Anthracene	1.08642	1.10645	1.07595	1.07173	1.14218	1.13240						
	1.22273	1.18791					AVRG		1.12822		4.83762	

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	60.0000 Level 7	80.0000 Level 8										
137 Chrysene	1.12671	1.07808	1.10686	1.11115	1.07610	1.10505						
	1.09057	1.03607					AVRG		1.09132		2.57683	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.54537	0.55769	0.57037	0.62251	0.62331	0.64210						
	0.66342	0.69439					AVRG		0.61490		8.61235	
140 Di-n-octylphthalate	0.95846	0.94790	0.88506	1.00357	1.11567	1.15122						
	1.23610	1.19959					AVRG		1.06220		12.25142	
141 Benzo(b)fluoranthene	1.19120	1.24857	1.14934	1.20928	1.34360	1.36458						
	1.26289	1.29205					AVRG		1.25769		5.90454	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	1.27031	1.33622	1.48213	1.47792	1.36538	1.33018						
	1.41348	1.43554					AVRG		1.38890		5.45858	

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	60.0000 Level 7	80.0000 Level 8										
143 7,12-dimethylbenz[a]anthracen	0.55710	0.57850	0.58884	0.60416	0.61650	0.59804						
	0.59004	0.59685					AVRG		0.59126		3.01037	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	0.83468	0.88879	0.87930	0.93239	1.01765	1.04511						
	1.03364	1.05386					AVRG		0.96068		9.04452	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	0.82090	0.87677	0.91534	1.01941	1.03661	1.11543						
	1.11886	1.17259					AVRG		1.00949		12.56721	
150 Dibenz(a,h)anthracene	0.73387	0.72477	0.74032	0.81832	0.84969	0.93076						
	0.94395	0.98941					AVRG		0.84139		12.41579	

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	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	0.75262	0.75973	0.79640	0.85205	0.90224	0.96934						
	0.96635	1.02801					AVRG		0.87834		11.88454	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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	60.0000 Level 7	80.0000 Level 8										
217 Indene	2.19822	2.17897	2.22134	2.33460	2.39984	2.26737						
	2.50330	2.45298					AVRG		2.31958		5.28239	
218 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
219 1,4-Dithiane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
220 1,4-Oxathiane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
221 Benzothiazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
222 Dimethyl Disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
223 p-Chlorophenylmethylsulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
224 p-Chlorophenylmethylsulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
225 p-Chlorophenylmethylsulfoxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
$ 154 Nitrobenzene-d5	0.33797	0.39260	0.41366	0.40291	0.40435	0.41741						
	0.41105	0.41178					AVRG		0.39896		6.47555	
$ 155 2-Fluorobiphenyl	1.29784	1.24502	1.27839	1.23734	1.24918	1.29565						
	1.34073	1.36193					AVRG		1.28826		3.52240	
$ 156 Terphenyl-d14	0.70881	0.75658	0.80757	0.80584	0.82632	0.80728						
	0.82477	0.86239					AVRG		0.79994		5.89079	
$ 157 Phenol-d5	1.36334	1.51687	1.47136	1.52077	1.55433	1.44397						
	1.56038	1.50905					AVRG		1.49251		4.35551	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	60.0000 Level 7	80.0000 Level 8									
$ 158 2-Fluorophenol	1.04023	1.14444	1.13545	1.15184	1.16681	1.07046					
	1.19521	1.14984					AVRG		1.13179		4.51690
$ 159 2,4,6-Tribromophenol	0.09690	0.07316	0.09022	0.09028	0.10133	0.10304					
	0.10735	0.10602					AVRG		0.09604		11.77685
$ 186 2-Chlorophenol-d4	1.21987	1.34675	1.29243	1.37835	1.37061	1.28297					
	1.38314	1.36575					AVRG		1.32998		4.41368
$ 187 1,2-Dichlorobenzene-d4	1.04696	1.04598	0.96040	1.02692	1.00888	0.96128					
	1.02828	1.01966					AVRG		1.01230		3.37420

(1-389)

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C0H200635

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0831DF1 DFTPP Injection Date: 08/31/10

Instrument ID: 731 DFTPP Injection Time: 1055

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	45.3
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	40.0 - 60.0% of mass 198	42.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 1.0% of mass 198	2.50
441	Present, but less than mass 443	6.6
442	40.0 - 99.0% of mass 198	44.7
443	17.0 - 23.0% of mass 442	8.9 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08310CC	08/31/10	1111
02	SD-99-04	L5X3G1AG	V0831001	08/31/10	1342
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08310CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V083110.b\827011.m

Injection Date: 31-AUG-2010 11:11
Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Init. Cal. Times: 10:20 12:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.39599	0.39685	0.39685	0.010	-0.21597	25.00000	Averaged
10 N-Nitrosodimethylamine	0.54285	0.55832	0.55832	0.010	-2.85040	25.00000	Averaged
9 Pyridine	1.10584	1.12115	1.12115	0.010	-1.38384	25.00000	Averaged
16 Methyl methanesulfonate	0.76389	0.75960	0.75960	0.010	0.56189	25.00000	Averaged
206 Benzaldehyde	1.00567	0.96279	0.96279	0.010	4.26397	25.00000	Averaged
21 Aniline	2.01248	1.98831	1.98831	0.010	1.20061	25.00000	Averaged
22 Phenol	1.72046	1.71698	1.71698	0.010	0.20216	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.08576	1.16604	1.16604	0.010	-7.39372	25.00000	Averaged
24 2-Chlorophenol	1.31956	1.33648	1.33648	0.010	-1.28234	25.00000	Averaged
26 1,3-Dichlorobenzene	1.58885	1.59859	1.59859	0.010	-0.61269	25.00000	Averaged
27 1,4-Dichlorobenzene	1.63044	1.63019	1.63019	0.010	0.01577	20.00000	Averaged
28 1,2-Dichlorobenzene	1.54169	1.48899	1.48899	0.010	3.41864	25.00000	Averaged
29 Benzyl Alcohol	0.81108	0.73265	0.73265	0.010	9.66967	25.00000	Averaged
30 2-Methylphenol	1.20981	1.20291	1.20291	0.010	0.57073	25.00000	Averaged
31 2,2'-oxybis(1-Chloropropane	1.24426	1.21524	1.21524	0.010	2.33245	25.00000	Averaged
37 Acetophenone	1.88281	1.81363	1.81363	0.010	3.67467	25.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.95105	0.89905	0.89905	0.050	5.46761	25.00000	Averaged
192 4-Methylphenol	1.21791	1.10463	1.10463	0.010	9.30085	25.00000	Averaged
34 Hexachloroethane	0.73056	0.73816	0.73816	0.010	-1.03951	25.00000	Averaged
35 Nitrobenzene	0.40783	0.41793	0.41793	0.010	-2.47471	25.00000	Averaged
41 Isophorone	0.63912	0.62015	0.62015	0.010	2.96772	25.00000	Averaged
42 2-Nitrophenol	0.18697	0.18151	0.18151	0.010	2.92034	20.00000	Averaged
43 2,4-Dimethylphenol	0.39114	0.36825	0.36825	0.010	5.85066	25.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.37775	0.37061	0.37061	0.010	1.89140	25.00000	Averaged
48 2,4-Dichlorophenol	0.31729	0.31716	0.31716	0.010	0.04047	20.00000	Averaged
49 Benzoic Acid	0.17161	0.16490	0.16490	0.010	3.90697	25.00000	Averaged
50 1,2,4-Trichlorobenzene	0.38901	0.35661	0.35661	0.010	8.32992	25.00000	Averaged
51 Naphthalene	1.05827	0.99219	0.99219	0.010	6.24451	25.00000	Averaged
52 4-Chloroaniline	0.43832	0.41757	0.41757	0.010	4.73280	25.00000	Averaged
54 2,6-Dichlorophenol	0.31705	0.31648	0.31648	0.010	0.18182	25.00000	Averaged
56 Hexachlorobutadiene	0.27960	0.28151	0.28151	0.010	-0.68385	20.00000	Averaged
208 Caprolactam	0.08094	0.07437	0.07437	0.010	8.12382	25.00000	Averaged
59 4-Chloro-3-Methylphenol	0.32127	0.29984	0.29984	0.010	6.67275	20.00000	Averaged
62 2-Methylnaphthalene	0.74178	0.71341	0.71341	0.010	3.82445	25.00000	Averaged
63 1-Methylnaphthalene	0.71785	0.69013	0.69013	0.010	3.86189	25.00000	Averaged
64 Hexachlorocyclopentadiene	0.47365	0.45121	0.45121	0.050	4.73720	25.00000	Averaged
66 2,4,6-Trichlorophenol	0.40036	0.40213	0.40213	0.010	-0.44108	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.41524	0.41063	0.41063	0.010	1.11069	25.00000	Averaged
209 1,1'-Biphenyl	1.37815	1.35975	1.35975	0.010	1.33515	25.00000	Averaged
70 2-Chloronaphthalene	1.12911	1.14544	1.14544	0.010	-1.44599	25.00000	Averaged
73 2-Nitroaniline	0.32323	0.33058	0.33058	0.010	-2.27347	25.00000	Averaged
76 Dimethylphthalate	1.27150	1.28238	1.28238	0.010	-0.85570	25.00000	Averaged

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08310CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V083110.b\827011.m

Injection Date: 31-AUG-2010 11:11
Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Init. Cal. Times: 10:20 12:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
78 2,6-Dinitrotoluene	0.25458	0.23082	0.23082	0.010	9.33481	25.00000	Averaged
79 Acenaphthylene	1.71742	1.67932	1.67932	0.010	2.21874	25.00000	Averaged
81 3-Nitroaniline	0.25866	0.28372	0.28372	0.010	-9.68675	25.00000	Averaged
82 Acenaphthene	1.08459	1.06871	1.06871	0.010	1.46426	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	9.52715	0.13139	0.050	4.72850	25.00000	Quadratic
85 4-Nitrophenol	0.23688	0.25071	0.25071	0.050	-5.83828	25.00000	Averaged
86 Dibenzofuran	1.70142	1.70227	1.70227	0.010	-0.04991	25.00000	Averaged
87 2,4-Dinitrotoluene	0.37664	0.35980	0.35980	0.010	4.47254	25.00000	Averaged
91 2,3,5,6-Tetrachlorophenol	0.40537	0.38971	0.38971	0.010	3.86299	25.00000	Averaged
88 2,3,4,6-Tetrachlorophenol	0.39659	0.40860	0.40860	0.010	-3.02811	25.00000	Averaged
92 2-Naphthylamine	0.97204	1.04270	1.04270	0.010	-7.26968	25.00000	Averaged
93 Diethylphthalate	1.31652	1.36094	1.36094	0.010	-3.37420	25.00000	Averaged
94 Fluorene	1.37965	1.38756	1.38756	0.010	-0.57334	25.00000	Averaged
95 4-Chlorophenyl-phenylether	0.74474	0.76117	0.76117	0.010	-2.20603	25.00000	Averaged
96 4-Nitroaniline	0.27624	0.28620	0.28620	0.010	-3.60513	25.00000	Averaged
98 4,6-Dinitro-2-methylphenol	0.12492	0.12041	0.12041	0.010	3.61225	25.00000	Averaged
99 N-Nitrosodiphenylamine (1)	0.47503	0.44173	0.44173	0.010	7.00963	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.80345	0.85268	0.85268	0.010	-6.12709	25.00000	Averaged
106 4-Bromophenyl-phenylether	0.22724	0.23300	0.23300	0.010	-2.53456	25.00000	Averaged
107 Hexachlorobenzene	0.23915	0.22840	0.22840	0.010	4.49593	25.00000	Averaged
210 Atrazine	0.21521	0.21553	0.21553	0.010	-0.15079	25.00000	Averaged
111 Pentachlorophenol	0.15170	0.15687	0.15687	0.010	-3.40669	20.00000	Averaged
115 Phenanthrene	1.12969	1.13442	1.13442	0.010	-0.41905	25.00000	Averaged
116 Anthracene	1.12519	1.11787	1.11787	0.010	0.65023	25.00000	Averaged
119 Carbazole	0.98662	1.02706	1.02706	0.010	-4.09886	25.00000	Averaged
120 Di-n-Butylphthalate	1.19590	1.20693	1.20693	0.010	-0.92179	25.00000	Averaged
123 Fluoranthene	1.34153	1.45810	1.45810	0.010	-8.68949	20.00000	Averaged
124 Benzidine	0.33382	0.30127	0.30127	0.010	9.75035	25.00000	Averaged
125 Pyrene	1.15212	1.06534	1.06534	0.010	7.53163	25.00000	Averaged
131 Butylbenzylphthalate	0.43248	0.41817	0.41817	0.010	3.30857	25.00000	Averaged
135 3,3'-Dichlorobenzidine	0.34572	0.32904	0.32904	0.010	4.82617	25.00000	Averaged
136 Benzo(a)Anthracene	1.12822	1.10692	1.10692	0.010	1.88785	25.00000	Averaged
137 Chrysene	1.09132	1.10633	1.10633	0.010	-1.37470	25.00000	Averaged
139 bis(2-ethylhexyl)Phthalate	0.61490	0.56319	0.56319	0.010	8.40909	25.00000	Averaged
140 Di-n-octylphthalate	1.06220	0.86269	0.86269	0.010	18.78224	20.00000	Averaged
141 Benzo(b)fluoranthene	1.25769	1.05758	1.05758	0.010	15.91111	25.00000	Averaged
142 Benzo(k)fluoranthene	1.38890	1.43461	1.43461	0.010	-3.29148	25.00000	Averaged
143 7,12-dimethylbenz[a]anthrac	0.59126	0.55346	0.55346	0.010	6.39287	25.00000	Averaged
146 Benzo(a)pyrene	0.96068	0.93721	0.93721	0.010	2.44313	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.00949	0.95262	0.95262	0.010	5.63353	25.00000	Averaged
150 Dibenz(a,h)anthracene	0.84139	0.76315	0.76315	0.010	9.29814	25.00000	Averaged
151 Benzo(g,h,i)perylene	0.87834	0.83030	0.83030	0.010	5.47015	25.00000	Averaged

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08310CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V083110.b\827011.m

Injection Date: 31-AUG-2010 11:11
Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Init. Cal. Times: 10:20 12:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.39896	0.40978	0.40978	0.010	-2.71000	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.28826	1.30574	1.30574	0.010	-1.35710	25.00000	Averaged
$ 156 Terphenyl-d14	0.79994	0.74607	0.74607	0.010	6.73512	25.00000	Averaged
$ 157 Phenol-d5	1.49251	1.46228	1.46228	0.010	2.02557	25.00000	Averaged
$ 158 2-Fluorophenol	1.13179	1.15110	1.15110	0.010	-1.70617	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.09604	0.09329	0.09329	0.010	2.86025	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.32998	1.32570	1.32570	0.010	0.32177	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.01230	1.05254	1.05254	0.010	-3.97516	25.00000	Averaged

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

Instrument ID: 731 Time Analyzed: 1215

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	134255		4.50		449273		5.49		272942		6.84	
	UPPER LIMIT	268510		5.00		898546		5.99		545884		7.34	
	LOWER LIMIT	67128		4.00		224637		4.99		136471		6.34	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	118844		4.51		395358		5.49		223425		6.84	
02	INTRA-LAB CH	113056		4.51		367105		5.49		219503		6.85	
03	SD-106-SS	92627		4.51		317320		5.49		188065		6.85	
04	SD-106-01	93755		4.51		304560		5.49		185372		6.84	
05	SD-106-01 MS	93782		4.51		293918		5.49		185722		6.84	
06	SD-106-01 MS	87123		4.50		308166		5.49		187968		6.84	
07	SD-106-02	89869		4.50		300795		5.49		186964		6.84	
08	SD-106-04	91896		4.51		301785		5.49		190774		6.85	
09	SD-100-SS	85848		4.51		284823		5.49		175184		6.84	
10	SD-100-01	93715		4.51		312723		5.49		183229		6.84	
11	SD-100-02	90647		4.51		297671		5.49		188843		6.84	
12	SD-100-04	84986		4.50		284831		5.49		178392		6.84	
13	SD-98-SS	87545		4.50		285049		5.49		177679		6.84	
14	SD-98-01	83841		4.50		280789		5.49		167157		6.84	
15	SD-98-02	85764		4.51		284607		5.49		170074		6.84	
16	SD-DUP4-02	81086		4.51		273366		5.49		164369		6.85	
17	SD-98-04	87371		4.50		291115		5.49		164893		6.84	
18	SD-96-SS	83663		4.51		286076		5.49		175580		6.84	
19	SD-96-01	82555		4.51		273857		5.49		174173		6.84	
20	SD-96-02	92834		4.51		281077		5.49		170894		6.85	
21	SD-96-04	90076		4.51		286346		5.49		175129		6.84	
22	SD-88-SS	86848		4.51		272102		5.49		164737		6.84	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Instrument ID: 731 Time Analyzed: 1215

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	509719	7.99	580411	10.04	536096	11.41
	UPPER LIMIT	1019438	8.49	1160822	10.54	1072192	11.91
	LOWER LIMIT	254860	7.49	290206	9.54	268048	10.91
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	398882	7.99	424473	10.04	385845	11.42
02	INTRA-LAB CH	402770	7.99	479714	10.05	428664	11.43
03	SD-106-SS	317287	7.99	359816	10.05	352110	11.43
04	SD-106-01	330045	7.99	365434	10.06	364564	11.44
05	SD-106-01 MS	319306	7.99	383289	10.08	379329	11.47
06	SD-106-01 MS	342490	7.99	421500	10.07	432177	11.46
07	SD-106-02	328008	7.99	401708	10.07	414373	11.46
08	SD-106-04	337741	7.99	414221	10.07	419031	11.46
09	SD-100-SS	311203	7.99	395414	10.08	428691	11.47
10	SD-100-01	315729	7.99	406620	10.08	426724	11.48
11	SD-100-02	311368	7.99	411771	10.08	427461	11.47
12	SD-100-04	303597	7.99	375277	10.06	405337	11.45
13	SD-98-SS	303451	7.99	392177	10.06	433727	11.44
14	SD-98-01	298093	7.99	410856	10.04	457043	11.42
15	SD-98-02	300740	7.99	413816	10.05	467347	11.42
16	SD-DUP4-02	286720	7.99	391763	10.04	433681	11.42
17	SD-98-04	298774	7.99	411204	10.03	472629	11.41
18	SD-96-SS	309532	7.99	408990	10.04	461552	11.41
19	SD-96-01	290260	7.99	403270	10.03	459496	11.40
20	SD-96-02	299728	7.99	417644	10.04	484829	11.42
21	SD-96-04	313277	7.99	449654	10.04	537888	11.42
22	SD-88-SS	285661	7.99	428866	10.04	517115	11.41

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

Instrument ID: 731 Time Analyzed: 1215

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	134255	4.50	449273	5.49	272942	6.84
	UPPER LIMIT	268510	5.00	898546	5.99	545884	7.34
	LOWER LIMIT	67128	4.00	224637	4.99	136471	6.34
	CLIENT SAMPLE NO.						
01	SD-88-01	82865	4.51	272711	5.49	165060	6.84
02	SD-88-02	78515	4.51	267788	5.48	162476	6.84
03	SD-88-04	79323	4.51	273064	5.49	156765	6.84
04	SD-89-SS	84801	4.51	267146	5.49	163331	6.84
05	SD-89-01	82055	4.51	276755	5.48	166821	6.84
06	SD-DUP5-01	77327	4.51	272394	5.49	169384	6.84
07	SD-89-02	73802	4.51	253390	5.49	154953	6.85
08	SD-99-SS	80652	4.51	280512	5.49	170820	6.84
09	SD-99-01	78940	4.51	257353	5.49	155943	6.85
10	SD-99-02	80643	4.51	265229	5.49	163638	6.85
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08260CC Date Analyzed: 08/26/10

Instrument ID: 731 Time Analyzed: 1215

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	509719		7.99		580411		10.04		536096		11.41	
	UPPER LIMIT	1019438		8.49		1160822		10.54		1072192		11.91	
	LOWER LIMIT	254860		7.49		290206		9.54		268048		10.91	
	CLIENT SAMPLE NO.												
01	SD-88-01	293352		7.99		441745		10.03		528729		11.41	
02	SD-88-02	283925		7.99		452638		10.03		523743		11.41	
03	SD-88-04	272256		7.99		391757		10.03		462034		11.41	
04	SD-89-SS	282349		7.99		379790		10.03		461769		11.41	
05	SD-89-01	286331		7.98		408846		10.03		499466		11.40	
06	SD-DUP5-01	259423		7.99		386060		10.03		476473		11.41	
07	SD-89-02	265035		7.99		410897		10.04		482987		11.41	
08	SD-99-SS	287492		7.99		410566		10.03		491658		11.41	
09	SD-99-01	277551		7.99		378799		10.03		452398		11.40	
10	SD-99-02	285577		7.99		371345		10.04		427596		11.41	
11													
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08270CC Date Analyzed: 08/27/10

Instrument ID: 731 Time Analyzed: 1020

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	160565		4.47		546512		5.44		311383		6.79	
	UPPER LIMIT	321130		4.97		1093024		5.94		622766		7.29	
	LOWER LIMIT	80283		3.97		273256		4.94		155692		6.29	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	146239		4.47		478722		5.44		284325		6.78	
02	INTRA-LAB CH	129221		4.47		395290		5.44		219821		6.78	
03	SD-89-04	115216		4.47		356394		5.44		183404		6.78	
04	SD-89-04 MS	108941		4.47		324742		5.44		170364		6.78	
05	SD-89-04 MSD	134285		4.47		425531		5.44		213613		6.78	
06													
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08270CC Date Analyzed: 08/27/10

Instrument ID: 731 Time Analyzed: 1020

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	480886		7.93		481735		9.97		435798		11.30	
	UPPER LIMIT	961772		8.43		963470		10.47		871596		11.80	
	LOWER LIMIT	240443		7.43		240868		9.47		217899		10.80	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	479279		7.92		431779		9.97		375493		11.30	
02	INTRA-LAB CH	361582		7.93		389486		9.96		349488		11.29	
03	SD-89-04	298949		7.92		355321		9.96		350967		11.29	
04	SD-89-04 MS	279394		7.93		343122		9.97		361925		11.30	
05	SD-89-04 MSD	331438		7.92		383079		9.96		399617		11.29	
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08310CC Date Analyzed: 08/31/10

Instrument ID: 731 Time Analyzed: 1111

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	99434	4.50	380407	5.48	248718	6.82
	UPPER LIMIT	198868	5.00	760814	5.98	497436	7.32
	LOWER LIMIT	49717	4.00	190204	4.98	124359	6.32
	CLIENT SAMPLE NO.						
01	SD-99-04	85869	4.50	328130	5.47	233503	6.82
02							
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H200635

Lab File ID (Standard): V08310CC Date Analyzed: 08/31/10

Instrument ID: 731 Time Analyzed: 1111

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	490986		7.96		698834		10.03		812597		11.40	
	UPPER LIMIT	981972		8.46		1397668		10.53		1625194		11.90	
	LOWER LIMIT	245493		7.46		349417		9.53		406299		10.90	
	CLIENT SAMPLE NO.												
01	SD-99-04	465638		7.96		677101		10.07		836396		11.46	
02													
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Sample Quantitation

Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H200635-020	Work Order #...:	L5X2T1AP	Matrix.....:	SOLID
Date Sampled...:	08/19/10 11:33	Date Received..:	08/20/10 10:00	MS Run #.....:	0237021
Prep Date.....:	08/25/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0237043	Analysis Time..:	20:51		
Dilution Factor:	5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	64	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	230	94	ug/kg	8.1
Acenaphthylene	260	94	ug/kg	11
Acenaphthene	210	94	ug/kg	9.0
Fluorene	260	94	ug/kg	12
Phenanthrene	1800	94	ug/kg	15
Anthracene	670	94	ug/kg	9.2
Fluoranthene	5100	94	ug/kg	10
Pyrene	3700	94	ug/kg	9.5
Benzo(a)anthracene	2200	94	ug/kg	12
Chrysene	2200	94	ug/kg	11
Benzo(b)fluoranthene	3700	94	ug/kg	15
Benzo(k)fluoranthene	ND	94	ug/kg	19
Benzo(a)pyrene	2100	94	ug/kg	9.4
Indeno(1,2,3-cd)pyrene	1300	94	ug/kg	9.7
Dibenzo(a,h)anthracene	510	94	ug/kg	10
Benzo(ghi)perylene	1500	94	ug/kg	9.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65	(27 - 110)
Terphenyl-d14	57	(21 - 130)
2-Fluorobiphenyl	65	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	62	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

TestAmerica Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\D\chem\731.i\V082610.b\V0826025.D
Lab Smp Id: L5X2T1AP Client Smp ID: SD-88-02
Inj Date : 26-AUG-2010 20:51
Operator : 003200 Inst ID: 731.i
Smp Info : C0H200635-020 X10 8/25/10 soil(0237043)8270c
Misc Info : L5X2T1AP,V082610.b,8270ll.m,pah.sub
Comment :
Method : \\PITSVR06\D\chem\731.i\V082610.b\8270ll.m
Meth Date : 27-Aug-2010 04:58 piccolinov Quant Type: ISTD
Cal Date : 04-JUN-2010 08:08 Cal File: V0604IC3.D
Als bottle: 27
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: pah.sub
Target Version: 4.14
Processing Host: PITPC-502

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * gpc * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
gpc	1.000	gpc correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/kg)
* 1 1,4-Dichlorobenzene-d4	152	4.506	4.503	(1.000)	78515	8.00000	
* 2 Naphthalene-d8	136	5.483	5.486	(1.000)	267788	8.00000	
* 3 Acenaphthene-d10	164	6.840	6.843	(1.000)	162476	8.00000	
* 4 Phenanthrene-d10	188	7.989	7.986	(1.000)	283925	8.00000	
* 5 Chrysene-d12	240	10.030	10.037	(1.000)	452638	8.00000	
* 6 Perylene-d12	264	11.408	11.410	(1.000)	Ais 523743	8.00000 IS	
51 Naphthalene	128	5.500	5.502	(1.003)	37106	0.98957	82.464
62 2-Methylnaphthalene	142	6.034	6.036	(1.100)	19994	0.81399	67.832
63 1-Methylnaphthalene	142	6.114	6.111	(1.115)	7924	0.33726	28.105
79 Acenaphthylene	152	6.734	6.730	(0.984)	36605	1.09829	91.524
82 Acenaphthene	153	6.862	6.864	(1.003)	19988	0.91542	76.285
94 Fluorene	166	7.262	7.265	(1.062)	31613	1.10798	92.332
115 Phenanthrene	178	8.005	8.007	(1.002)	308738	7.51045	625.87
116 Anthracene	178	8.042	8.045	(1.007)	119919	2.83800	236.50
123 Fluoranthene	202	8.934	8.921	(1.118)	1039867	21.5364	1794.7
125 Pyrene	202	9.105	9.097	(0.908)	1019065	15.7763	1314.7
136 Benzo(a)Anthracene	228	10.024	10.027	(0.999)	625084	9.47419	789.52
137 Chrysene	228	10.051	10.059	(1.002)	609070	9.46048	788.37
141 Benzo(b)fluoranthene	252	10.991	10.994	(0.963)	1305000	15.6607	1305.0
142 Benzo(k)fluoranthene	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/kg)
146 Benzo(a)pyrene	252	11.344	11.346	(0.994)	Ax 644727	8.74152 ✓	728.46 ✓
149 Indeno(1,2,3-cd)pyrene	276	12.808	12.799	(1.123)	473559	5.74003	478.34
150 Dibenz(a,h)anthracene	278	12.813	12.810	(1.123)	112452	2.15270	179.39
151 Benzo(g,h,i)perylene	276	13.224	13.216	(1.159)	486766	6.52411	543.68
$ 154 Nitrobenzene-d5	82	4.928	4.930	(0.899)	38602	2.61082	217.57
$ 155 2-Fluorobiphenyl	172	6.317	6.319	(0.923)	72465	2.58445	215.37
$ 156 Terphenyl-d14	244	9.207	9.204	(0.918)	105866	2.27988	189.99
$ 157 Phenol-d5	99	4.244	4.236	(0.942)	58694	3.69213	307.68
$ 158 2-Fluorophenol	112	3.480	3.466	(0.772)	45352	3.69831	308.19
$ 159 2,4,6-Tribromophenol	330	7.449	7.452	(0.932)	15451	3.81075	317.56
$ 186 2-Chlorophenol-d4	132	4.330	4.327	(0.961)	49116	3.66254	305.21
$ 187 1,2-Dichlorobenzene-d4	152	4.623	4.620	(1.026)	19635	1.89371	157.81

$$\text{Concentration} = \frac{Ax}{Ai} \times \frac{Is}{RRF} = \frac{644727}{523743} \times \frac{8.0\,ng}{1.12658} = 8.74149\,ng \checkmark$$

Ax = Response of Analyte
Ai = Int. Std. response
Is = Int. Std. Conc.
RRF = Relative resp. factor from Initial cal. 06/04/10 = 1.12658

$$8.74149\,ng \times \frac{10 \times 500\,uL}{2\,uL \times 30\,g} \times \frac{1}{0.36} = 2023\,ug/kg$$

PCB SUMMARY

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200635

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-106-SS	101	89	00
02	SD-106-01	95	82	00
03	SD-106-02	97	82	00
04	SD-106-04	85	75	00
05	SD-100-SS	91	76	00
06	SD-100-01	92	79	00
07	SD-100-02	95	83	00
08	SD-100-04	95	84	00
09	SD-98-SS	99	90	00
10	SD-98-01	78	80	00
11	SD-98-02	71	65	00
12	SD-DUP4-02	91	75	00
13	SD-98-04	88	90	00
14	SD-96-SS	98	85	00
15	SD-96-01	99	79	00
16	SD-96-02	92	88	00
17	SD-96-04	103	102	00
18	SD-88-SS	104	105	00
19	SD-88-01	101	90	00
20	SD-88-02	115	119	00
21	SD-88-04	92	97	00
22	SD-89-SS	102	92	00
23	SD-89-01	82	70	00
24	SD-DUP5-01	99	86	00
25	SD-89-02	101	99	00
26	SD-89-04	101	88	00
27	SD-99-SS	87	78	00

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H200635

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-99-01	88	75	00
02	SD-99-02	84	76	00
03	SD-99-04	99	87	00
04	METHOD BLK. L532V1AA	78	69	00
05	METHOD BLK. L532W1AA	92	79	00
06	LCS L532V1AC	99	86	00
07	LCS L532W1AC	91	82	00
08	SD-100-SS D	103	84	00
09	SD-99-02 D	94	80	00
10	SD-100-SS S	99	80	00
11	SD-99-02 S	98	82	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L532V1AC
BATCH: 0237058

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	544	82	55- 130	
Aroclor 1260	667	560	84	54- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-100-SS Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X131AU
BATCH: 0237058

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	MS CONCENT. (ug/kg)	MS % REC	LIMITS REC	QUAL
Aroclor 1016	1020	ND	877	86	55 - 130	
Aroclor 1260	1020	99	967	86	54 - 130	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-100-SS Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X131AV
BATCH: 0237058

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENT. (ug/kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Aroclor 1016	1020	937	92	6.6	35	55 - 130	
Aroclor 1260	1020	1040	93	7.6	29	54 - 130	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L532V1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0801325.

Lot Number: C0H200635

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/25/10

Date Analyzed(1): 09/01/10

Date Analyzed(2): N/A

Time Analyzed(1): 00:58

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-106-SS	L5X1V1AD	08/31/10	N/A
02	SD-106-01	L5X101AD	08/31/10	N/A
03	SD-106-02	L5X111AD	08/31/10	N/A
04	SD-106-04	L5X121AD	08/31/10	N/A
05	SD-100-SS	L5X131AD	08/31/10	N/A
06	SD-100-SS	L5X131AU S	08/31/10	N/A
07	SD-100-SS	L5X131AV D	08/31/10	N/A
08	SD-100-01	L5X151AD	08/31/10	N/A
09	SD-100-02	L5X161AD	08/31/10	N/A
10	SD-100-04	L5X171AD	08/31/10	N/A
11	SD-98-SS	L5X181AD	08/31/10	N/A
12	SD-98-01	L5X191AD	08/31/10	N/A
13	SD-98-02	L5X2A1AD	08/31/10	N/A
14	SD-DUP4-02	L5X2C1AD	08/31/10	N/A
15	SD-98-04	L5X2D1AD	08/31/10	N/A
16	SD-96-SS	L5X2E1AD	09/01/10	N/A
17	SD-96-01	L5X2F1AD	09/01/10	N/A
18	SD-96-02	L5X2H1AD	09/01/10	N/A
19	SD-96-04	L5X2J1AD	09/01/10	N/A
20	SD-88-SS	L5X2M1AE	09/01/10	N/A
21	SD-88-01	L5X2P1AK	09/01/10	N/A
22	SD-88-02	L5X2T1AQ	09/01/10	N/A
23	CHECK SAMPLE	L532V1AC C	09/01/10	N/A

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H200635	**Work Order #...:** L532V1AA	**Matrix.....:** SOLID
MB Lot-Sample #: C0H250000-058		
	Prep Date.....: 08/25/10	**Analysis Time..:** 00:58
Analysis Date..: 09/01/10	**Prep Batch #...:** 0237058	**Final Wgt/Vol..:** 10 mL
Dilution Factor: 1	**Initial Wgt/Vol:** 15 g	**Instrument ID..:** S/T
	Analyst ID.....: 402360	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(35 - 140)
Decachlorobiphenyl	69	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L532W1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0801346.

Lot Number: C0H200635

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/25/10

Date Analyzed(1): 09/01/10

Date Analyzed(2): N/A

Time Analyzed(1): 08:05

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-88-04	L5X2W1AD	09/01/10	N/A
02	SD-89-SS	L5X201AW	09/01/10	N/A
03	SD-89-01	L5X211A3	09/01/10	N/A
04	SD-DUP5-01	L5X241AD	09/01/10	N/A
05	SD-89-02	L5X261AE	09/01/10	N/A
06	SD-89-04	L5X291AD	09/01/10	N/A
07	SD-99-SS	L5X3A1AE	09/01/10	N/A
08	SD-99-01	L5X3D1AK	09/01/10	N/A
09	SD-99-02	L5X3F1AQ	09/01/10	N/A
10	SD-99-02	L5X3F1A5 S	09/01/10	N/A
11	SD-99-02	L5X3F1A6 D	09/01/10	N/A
12	SD-99-04	L5X3G1AH	09/01/10	N/A
13	CHECK SAMPLE	L532W1AC C	09/01/10	N/A
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H200635 **Work Order #...:** L532W1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H250000-062

Prep Date.....: 08/25/10 **Analysis Time..:** 08:05
Analysis Date..: 09/01/10 **Prep Batch #...:** 0237062 **Final Wgt/Vol..:** 10 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 15 g **Instrument ID..:** S/T
Analyst ID.....: 402360

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 140)
Decachlorobiphenyl	79	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L532W1AC
BATCH: 0237062

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	521	78	55- 130	
Aroclor 1260	667	545	82	54- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-99-02 Level:(low/med) LOW

Lot #: C0H200635 WO #: L5X3F1A5
BATCH: 0237062

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	MS CONCENT. (ug/kg)	MS % REC	LIMITS REC	QUAL
Aroclor 1016	1760	ND	1390	79	55- 130	
Aroclor 1260	1760	ND	1430	81	54- 130	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: SD-99-02 Level: (low/med) LOW

Lot #: C0H200635 WO #: L5X3F1A6
BATCH: 0237062

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENT. (ug/kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Aroclor 1016	1760	1380	78	1.0	35	55 - 130	
Aroclor 1260	1760	1420	80	0.72	29	54 - 130	

NOTES(S):

Results and reporting limits have been adjusted for dry weight.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

6E
HP6890 GC-14
MR-1

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801115.D
Level 2: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801116.D
Level 3: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801117.D
Level 4: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801118.D
Level 5: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801119.D
Level 6: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801120.D
Level 7: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801114.D

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
1 Aroclor-1221(1)	+++++	+++++	181940	+++++	+++++	+++++	+++++	181940	0.000	
(2)	+++++	+++++	127978	+++++	+++++	+++++	+++++	127978	0.000	
(3)	+++++	+++++	422586	+++++	+++++	+++++	+++++	422586	0.000	<-
3 Aroclor-1232(1)	+++++	+++++	147694	+++++	+++++	+++++	+++++	147694	0.000	
(2)	+++++	+++++	238040	+++++	+++++	+++++	+++++	238040	0.000	<-
(3)	+++++	+++++	266080	+++++	+++++	+++++	+++++	266080	0.000	<-
(4)	+++++	+++++	162674	+++++	+++++	+++++	+++++	162674	0.000	<-
(5)	+++++	+++++	213488	+++++	+++++	+++++	+++++	213488	0.000	<-

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
4 Aroclor-1016(1)	530420	547975	519314	532401	550869	581165		
	608900						553006	5.726
(2)	622860	695215	657490	692776	743482	796938		
	712500						703037	8.049
(3)	307760	397650	361430	403685	459024	492677		
	410400						404661	14.979
(4)	498680	560690	534964	528519	580863	590929		
	450100						534963	9.177
(5)	555880	618905	596034	586640	658213	682590		
	627700						617995	6.994
5 Aroclor-1242(1)	+++++	+++++	315832	+++++	+++++	+++++		
	+++++						315832	0.000
(2)	+++++	+++++	522574	+++++	+++++	+++++		
	+++++						522574	0.000
(3)	+++++	+++++	308592	+++++	+++++	+++++		
	+++++						308592	0.000
(4)	+++++	+++++	323460	+++++	+++++	+++++		
	+++++						323460	0.000
(5)	+++++	+++++	401898	+++++	+++++	+++++		
	+++++						401898	0.000
6 Aroclor-1248(1)	+++++	+++++	792704	+++++	+++++	+++++		
	+++++						792704	0.000

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	849506	+++++	+++++	+++++	849506	0.000	<-
(3)	+++++ / +++++	+++++	811398	+++++	+++++	+++++	811398	0.000	<-
(4)	+++++ / +++++	+++++	406108	+++++	+++++	+++++	406108	0.000	<-
(5)	+++++ / +++++	+++++	238946	+++++	+++++	+++++	238946	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	352844	+++++	+++++	+++++	352844	0.000	
(2)	+++++ / +++++	+++++	794038	+++++	+++++	+++++	794038	0.000	<-
(3)	+++++ / +++++	+++++	1290330	+++++	+++++	+++++	1290330	0.000	<-
(4)	+++++ / +++++	+++++	733294	+++++	+++++	+++++	733294	0.000	<-
(5)	+++++ / +++++	+++++	603718	+++++	+++++	+++++	603718	0.000	<-
8 Aroclor-1260(1)	1730000 / 1799200	1701960	1628712	1619963	1814625	1957934	1750342	6.766	
(2)	1363140 / 1400200	1375980	1246842	1402126	1492612	1639418	1417188	8.605	

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(3)	1114140	1105435	1021762	1096716	1152195	1247188			
	1112200						1121377	6.059	
(4)	1031520	1048335	918810	1034101	1117308	1177713			
	1020700						1049784	7.730	
(5)	2400480	2479365	2503420	2494463	2722693	2930665			
	2324300						2550769	8.134	
9 Aroclor-1262(1)	+++++	+++++	1105984	+++++	+++++	+++++			
	+++++						1105984	0.000	
(2)	+++++	+++++	527214	+++++	+++++	+++++			
	+++++						527214	0.000	<-
(3)	+++++	+++++	483030	+++++	+++++	+++++			
	+++++						483030	0.000	<-
(4)	+++++	+++++	2811500	+++++	+++++	+++++			
	+++++						2811500	0.000	<-
(5)	+++++	+++++	1424556	+++++	+++++	+++++			
	+++++						1424556	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	3321026	+++++	+++++	+++++			
	+++++						3321026	0.000	<-
(2)	+++++	+++++	2515862	+++++	+++++	+++++			
	+++++						2515862	0.000	<-
(3)	+++++	+++++	2300614	+++++	+++++	+++++			
	+++++						2300614	0.000	<-

Report Date : 30-Aug-2010 08:20

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:23
End Cal Date : 28-AUG-2010 11:27
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m
Last Edit : 30-Aug-2010 07:45 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(4)	+++++	+++++	4922440	+++++	+++++	+++++	+++++	4922440	0.000	<-
$ 2 Tetrachloro-m-xylene	19230800	19693800	22503120	21781660	23106360	23689315	21526000	21647294	7.711	
$ 11 Decachlorobiphenyl	10397600	9612100	10792120	10409920	11231540	11804480	12300000	10935394	8.383	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Y0801127.D
Report Date: 30-Aug-2010 07:45

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801127.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\PCBA.m

Injection Date: 28-AUG-2010 13:50
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	553006	491914	400.000	11.04729	15.00000	Averaged	
(2)	703037	658766	400.000	6.29713	15.00000	Averaged	
(3)	404661	368260	400.000	8.99541	15.00000	Averaged	
(4)	534963	531290	400.000	0.68667	15.00000	Averaged	
(5)	617995	608956	400.000	1.46257	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	21647294	1011960	400.000	95.32524	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	10935394	230720	400.000	97.89015	15.00000	Averaged	<- NA
8 Aroclor-1260(1)	1750342	1843006	400.000	-5.29406	15.00000	Averaged	
(2)	1417188	1535502	400.000	-8.34848	15.00000	Averaged	
(3)	1121377	957196	400.000	14.64098	15.00000	Averaged	
(4)	1049784	1032914	400.000	1.60698	15.00000	Averaged	
(5)	2550769	2301956	400.000	9.75444	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801306.D
Report Date: 01-Sep-2010 11:09

7E
HP6890 Gc-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801306.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 31-AUG-2010 18:31
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	553006	542570	400.000	1.88718	15.00000	Averaged	
(2)	703037	710348	400.000	-1.03989	15.00000	Averaged	
(3)	404661	403066	400.000	0.39413	15.00000	Averaged	
(4)	534963	620680	400.000	-16.02288	15.00000	Averaged	<-
(5)	617995	670886	400.000	-8.55855	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	21647294	23160960	400.000	-6.99240	15.00000	Averaged	
$ 11 Decachlorobiphenyl	10707960	11440120	400.000	-6.83753	15.00000	Averaged	
8 Aroclor-1260 (1)	1750342	1834858	400.000	-4.82855	15.00000	Averaged	
(2)	1417188	1466856	400.000	-3.50467	15.00000	Averaged	
(3)	1121377	1256152	400.000	-12.01876	15.00000	Averaged	
(4)	1049784	1240238	400.000	-18.14223	15.00000	Averaged	<-
(5)	2550769	2692806	400.000	-5.56838	15.00000	Averaged	

Avg < 15 (-5)

Avg. < 15 (-7)

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801327.D
Report Date: 01-Sep-2010 11:02

TE
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801327.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 01-SEP-2010 01:39
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	553006	531711	400.000	3.85081	15.00000	Averaged
(2)	703037	697596	400.000	0.77395	15.00000	Averaged
(3)	404661	409352	400.000	-1.15927	15.00000	Averaged
(4)	534963	581545	400.000	-8.70743	15.00000	Averaged
(5)	617995	632578	400.000	-2.35979	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	22187980	400.000	-2.49771	15.00000	Averaged
$ 11 Decachlorobiphenyl	10707960	10803520	400.000	-0.89242	15.00000	Averaged
8 Aroclor-1260(1)	1750342	1793246	400.000	-2.45118	15.00000	Averaged
(2)	1417188	1413927	400.000	0.23012	15.00000	Averaged
(3)	1121377	1197828	400.000	-6.81765	15.00000	Averaged
(4)	1049784	1173243	400.000	-11.76044	15.00000	Averaged
(5)	2550769	2479451	400.000	2.79596	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801348.D
Report Date: 01-Sep-2010 11:02

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801348.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 01-SEP-2010 09:03
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	553006	567740	400.000	-2.66431	15.00000	Averaged	
(2)	703037	733284	400.000	-4.30231	15.00000	Averaged	
(3)	404661	420638	400.000	-3.94827	15.00000	Averaged	
(4)	534963	623020	400.000	-16.46030	15.00000	Averaged	<-
(5)	617995	713478	400.000	-15.45052	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	21647294	24796880	400.000	-14.54956	15.00000	Averaged	
$ 11 Decachlorobiphenyl	10707960	11298040	400.000	-5.51067	15.00000	Averaged	
8 Aroclor-1260 (1)	1750342	1887672	400.000	-7.84590	15.00000	Averaged	
(2)	1417188	1521316	400.000	-7.34749	15.00000	Averaged	
(3)	1121377	1238772	400.000	-10.46887	15.00000	Averaged	
(4)	1049784	1214650	400.000	-15.70477	15.00000	Averaged	<-
(5)	2550769	2717494	400.000	-6.53625	15.00000	Averaged	

Avg = -8.5 OK

Avg = -9.6 OK

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Y0801353.D
Report Date: 01-Sep-2010 11:03

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0801353.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\PCBA.m

Injection Date: 01-SEP-2010 10:45
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:23 11:27
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	553006	526771	400.000	4.74411	15.00000	Averaged
(2)	703037	693428	400.000	1.36681	15.00000	Averaged
(3)	404661	405520	400.000	-0.21230	15.00000	Averaged
(4)	534963	592493	400.000	-10.75393	15.00000	Averaged
(5)	617995	658556	400.000	-6.56339	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21647294	22617680	400.000	-4.48271	15.00000	Averaged
$ 11 Decachlorobiphenyl	10707960	10419600	400.000	2.69295	15.00000	Averaged
8 Aroclor-1260 (1)	1750342	1726047	400.000	1.38801	15.00000	Averaged
(2)	1417188	1396636	400.000	1.45022	15.00000	Averaged
(3)	1121377	1157978	400.000	-3.26398	15.00000	Averaged
(4)	1049784	1158295	400.000	-10.33653	15.00000	Averaged
(5)	2550769	2466064	400.000	3.32078	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	08/28/10	0723		
02		M1232	08/28/10	0744		
03		M1242	08/28/10	0804		
04		M1248	08/28/10	0824		
05		M1262	08/28/10	0845		
06		M1268	08/28/10	0905		
07		XL1660	08/28/10	0925		
08		L1660	08/28/10	0946		
09		ML1660	08/28/10	1006		
10		M1660	08/28/10	1026		
11		MH1660	08/28/10	1047		
12		H1660	08/28/10	1107		
13		XH1660	08/28/10	1127		
14		2M2154	08/28/10	1148		
15		2M1232	08/28/10	1208		
16		2M1242	08/28/10	1229		
17		2M1248	08/28/10	1249		
18		2M1262	08/28/10	1309		
19		2M1268	08/28/10	1330		
20		2M1660	08/28/10	1350		
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QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	08/31/10	1628		
02		M1232	08/31/10	1649		
03		M1242	08/31/10	1709		
04		M1248	08/31/10	1729		
05		M1262	08/31/10	1750		
06		M1268	08/31/10	1810		
07		M1660	08/31/10	1831		
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QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.02 DCB: 13.04

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-106-SS	L5X1V1AD	08/31/10	1851	6.02	13.04
02	SD-106-01	L5X101AD	08/31/10	1912	6.02	13.04
03	SD-106-02	L5X111AD	08/31/10	1932	6.02	13.04
04	SD-106-04	L5X121AD	08/31/10	1952	6.02	13.03
05	SD-100-SS	L5X131AD	08/31/10	2013	6.02	13.04
06	SD-100-SS MS	L5X131AU	08/31/10	2033	6.02	13.04
07	SD-100-SS MS	L5X131AV	08/31/10	2053	6.02	13.04
08	SD-100-01	L5X151AD	08/31/10	2114	6.02	13.03
09	SD-100-02	L5X161AD	08/31/10	2134	6.02	13.03
10	SD-100-04	L5X171AD	08/31/10	2155	6.02	13.04
11	SD-98-SS	L5X181AD	08/31/10	2215	6.02	13.03
12	SD-98-01	L5X191AD	08/31/10	2235	6.02	13.03
13	SD-98-02	L5X2A1AD	08/31/10	2256	6.02	13.03
14	SD-DUP4-02	L5X2C1AD	08/31/10	2316	6.02	13.03
15	SD-98-04	L5X2D1AD	08/31/10	2336	6.02	13.03
16	SD-96-01	L5X2F1AD	09/01/10	0017	6.02	13.03
17	PBLK7058	L532V1AA	09/01/10	0058	6.02	13.03
18	LCS7058	L532V1AC	09/01/10	0118	6.02	13.03
19		MH1660	09/01/10	0139	6.02	13.04
20	SD-96-02	L5X2H1AD	09/01/10	0159	6.02	13.03
21	SD-88-SS	L5X2M1AE	09/01/10	0240	6.02	13.03
22	SD-88-01	L5X2P1AK	09/01/10	0300	6.02	13.03
23	SD-88-02	L5X2T1AQ	09/01/10	0320	6.02	13.03
24	SD-88-04	L5X2W1AD	09/01/10	0341	6.02	13.03
25	SD-89-SS	L5X201AW	09/01/10	0401	6.02	13.03
26	SD-89-01	L5X211A3	09/01/10	0421	6.02	13.03
27	SD-DUP5-01	L5X241AD	09/01/10	0442	6.02	13.03
28	SD-89-02	L5X261AE	09/01/10	0502	6.02	13.03
29	SD-89-04	L5X291AD	09/01/10	0523	6.02	13.03
30	SD-99-SS	L5X3A1AE	09/01/10	0543	6.02	13.03
31	SD-99-01	L5X3D1AK	09/01/10	0603	6.02	13.03
32	SD-99-02	L5X3F1AQ	09/01/10	0624	6.02	13.03

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.02 DCB: 13.04

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-99-02 MS	L5X3F1A5	09/01/10	0644	6.02	13.03
02	SD-99-02 MSD	L5X3F1A6	09/01/10	0704	6.02	13.03
03	SD-99-04	L5X3G1AH	09/01/10	0725	6.02	13.03
04	PBLK7062	L532W1AA	09/01/10	0805	6.02	13.03
05	LCS7062	L532W1AC	09/01/10	0826	6.02	13.03
06		M1660	09/01/10	0903	6.02	13.04
07	SD-96-SS	L5X2E1AD	09/01/10	0944	6.01	13.03
08	SD-96-04	L5X2J1AD	09/01/10	1004	6.02	13.03
09		MH1660	09/01/10	1045	6.02	13.03
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QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 30-Aug-2010 09:53

6E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801115.D
Level 2: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801116.D
Level 3: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801117.D
Level 4: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801118.D
Level 5: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801119.D
Level 6: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801120.D
Level 7: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801114.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	326144	+++++	+++++	+++++	326144	0.000	
(2)	+++++ / +++++	+++++	218828	+++++	+++++	+++++	218828	0.000	<-
(3)	+++++ / +++++	+++++	756818	+++++	+++++	+++++	756818	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	352070	+++++	+++++	+++++	352070	0.000	<-
(2)	+++++ / +++++	+++++	332418	+++++	+++++	+++++	332418	0.000	<-
(3)	+++++ / +++++	+++++	262228	+++++	+++++	+++++	262228	0.000	<-
(4)	+++++ / +++++	+++++	358466	+++++	+++++	+++++	358466	0.000	<-
(5)	+++++ / +++++	+++++	217810	+++++	+++++	+++++	217810	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
4 Aroclor-1016(1)	955340	920630	846730	1132647	817982	824718		
	1177000						953578	15.405
(2)	1026720	994255	923908	1325964	912401	932243		
	1449800						1080756	20.050 <-
(3)	877600	931950	861736	1298761	885597	922049		
	984000						965956	15.774 <-
(4)	991740	969640	881988	1299352	881184	889723		
	1381900						1042218	20.133 <-
(5)	676960	689275	636640	962518	643196	681991		
	987300						753983	20.206 <-
5 Aroclor-1242(1)	+++++	+++++	434154	+++++	+++++	+++++		
	+++++						434154	0.000
(2)	+++++	+++++	697586	+++++	+++++	+++++		
	+++++						697586	0.000
(3)	+++++	+++++	734798	+++++	+++++	+++++		
	+++++						734798	0.000
(4)	+++++	+++++	453118	+++++	+++++	+++++		
	+++++						453118	0.000
(5)	+++++	+++++	345952	+++++	+++++	+++++		
	+++++						345952	0.000
6 Aroclor-1248(1)	+++++	+++++	1080376	+++++	+++++	+++++		
	+++++						1080376	0.000

18.3
AA 8/30/10

Aug 2
18.3 ✓
per 10/5/10

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	***** / *****	*****	409094	*****	*****	*****	409094	0.000	<-
(3)	***** / *****	*****	489530	*****	*****	*****	489530	0.000	<-
(4)	***** / *****	*****	445960	*****	*****	*****	445960	0.000	<-
(5)	***** / *****	*****	621586	*****	*****	*****	621586	0.000	<-
7 Aroclor-1254(1)	***** / *****	*****	1151304	*****	*****	*****	1151304	0.000	
(2)	***** / *****	*****	1920192	*****	*****	*****	1920192	0.000	
(3)	***** / *****	*****	1102060	*****	*****	*****	1102060	0.000	
(4)	***** / *****	*****	1469122	*****	*****	*****	1469122	0.000	
(5)	***** / *****	*****	980884	*****	*****	*****	980884	0.000	
8 Aroclor-1260(1)	2035180 / 2411500	1907575	1778584	2389297	1749153	1717677	1998424	14.764	
(2)	2635400 / 2813800	2479830	2306268	3240700	2186068	2281147	2563316	14.438	

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(3)	2259420 / 2513200	2152565	1990964	2728213	1966505	1882163	2213290	14.058	
(4)	2305820 / 2631800	2185915	2003860	2691922	1810105	1836292	2209388	16.130	
(5)	1156300 / 1321600	1030465	957288	1290940	898524	908319	1080491	16.409	
9 Aroclor-1262(1)	+++++ / +++++	+++++	2731000	+++++	+++++	+++++	2731000	0.000	
(2)	+++++ / +++++	+++++	2330680	+++++	+++++	+++++	2330680	0.000	<-
(3)	+++++ / +++++	+++++	4701386	+++++	+++++	+++++	4701386	0.000	<-
(4)	+++++ / +++++	+++++	2044544	+++++	+++++	+++++	2044544	0.000	<-
(5)	+++++ / +++++	+++++	3111894	+++++	+++++	+++++	3111894	0.000	<-
10 Aroclor-1268(1)	+++++ / +++++	+++++	5518726	+++++	+++++	+++++	5518726	0.000	
(2)	+++++ / +++++	+++++	4968164	+++++	+++++	+++++	4968164	0.000	<-
(3)	+++++ / +++++	+++++	4078350	+++++	+++++	+++++	4078350	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(4)	+++++ / +++++	+++++	1254572	+++++	+++++	+++++	1254572	0.000	<-
$ 2 Tetrachloro-m-xylene	27560000 / 31896000	26782300	28970520	40554860	28620900	28968345	30478989	15.489	
$ 11 Decachlorobiphenyl	17917600 / 19986000	16047300	17608960	21801560	16425500	15681665	17924084	12.513	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801127.D
Report Date: 30-Aug-2010 09:46

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801127.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 28-AUG-2010 13:30
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	868382	0.010	8.93436	15.00000	Averaged	
(2)	1080756	907798	0.010	16.00341	15.00000	Averaged	<- O.K
(3)	965956	872314	0.010	9.69424	15.00000	Averaged	
(4)	1042218	907860	0.010	12.89155	15.00000	Averaged	
(5)	753983	609612	0.010	19.14776	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	++++	0.000	++++	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	17924084	389600	0.010	97.82639	15.00000	Averaged	<-
8 Aroclor-1260 (1)	1998424	1868548	0.010	6.49890	15.00000	Averaged	
(2)	2563316	2476344	0.010	3.39295	15.00000	Averaged	
(3)	2213290	2141506	0.010	3.24331	15.00000	Averaged	
(4)	2209388	1831410	0.010	17.10780	15.00000	Averaged	<- O.K
(5)	1080491	922886	0.010	14.58642	15.00000	Averaged	

Avg = 13.3 ✓ OK fc 10/5/10

Aa 8/30/10

Avg = 8.7 OK ✓ fc. 10/5/10

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801306.D
Report Date: 01-Sep-2010 11:40

7E
HP6890 Cec-14
m R-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801306.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 31-AUG-2010 18:51
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	835366	0.010	12.39669	15.00000	Averaged
(2)	1080756	942566	0.010	12.78640	15.00000	Averaged
(3)	965956	869868	0.010	9.94746	15.00000	Averaged
(4)	1042218	915892	0.010	12.12089	15.00000	Averaged
(5)	753983	644266	0.010	14.55163	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	27891560	0.000	8.48922	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	16537400	0.010	7.73643	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1782418	0.010	10.80880	15.00000	Averaged
(2)	2563316	2324818	0.010	9.30428	15.00000	Averaged
(3)	2213290	1968078	0.010	11.07907	15.00000	Averaged
(4)	2209388	2004792	0.010	9.26029	15.00000	Averaged
(5)	1080491	954616	0.010	11.64979	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801327.D
Report Date: 01-Sep-2010 11:40

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801327.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 01-SEP-2010 01:59
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	953578	799570	0.010	16.15055	15.00000	Averaged	<-
(2)	1080756	945649	0.010	12.50113	15.00000	Averaged	
(3)	965956	901977	0.010	6.62340	15.00000	Averaged	
(4)	1042218	903551	0.010	13.30500	15.00000	Averaged	
(5)	753983	673651	0.010	10.65433	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	30478989	27668040	0.000	9.22258	15.00000	Averaged	
$ 11 Decachlorobiphenyl	17924084	16461660	0.010	8.15899	15.00000	Averaged	
8 Aroclor-1260(1)	1998424	1710457	0.010	14.40969	15.00000	Averaged	
(2)	2563316	2237363	0.010	12.71607	15.00000	Averaged	
(3)	2213290	1907215	0.010	13.82896	15.00000	Averaged	
(4)	2209388	1873476	0.010	15.20384	15.00000	Averaged	<-
(5)	1080491	911465	0.010	15.64344	15.00000	Averaged	<-

11-8 ✓ OK f.c. 10/5/10

14.3 AC 9/1/10

14.3 OK ✓ f.c. 10/5/10

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801348.D
Report Date: 01-Sep-2010 11:41

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i Injection Date: 01-SEP-2010 09:24
Lab File ID: Z0801348.D Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Analysis Type: Init. Cal. Times: 07:03 11:07
Lab Sample ID: M1660 Quant Type: ESTD
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	953578	865658	0.010	9.22002	15.00000	Averaged
(2)	1080756	947686	0.010	12.31265	15.00000	Averaged
(3)	965956	896504	0.010	7.18999	15.00000	Averaged
(4)	1042218	912360	0.010	12.45978	15.00000	Averaged
(5)	753983	650026	0.010	13.78769	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	28062440	0.000	7.92857	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	17067320	0.010	4.77996	15.00000	Averaged
8 Aroclor-1260 (1)	1998424	1774786	0.010	11.19070	15.00000	Averaged
(2)	2563316	2385396	0.010	6.94101	15.00000	Averaged
(3)	2213290	2038140	0.010	7.91355	15.00000	Averaged
(4)	2209388	1991894	0.010	9.84407	15.00000	Averaged
(5)	1080491	944334	0.010	12.60139	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801353.D
Report Date: 01-Sep-2010 12:19

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801353.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 01-SEP-2010 12:15
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	828049	0.010	13.16401	15.00000	Averaged
(2)	1080756	965017	0.010	10.70905	15.00000	Averaged
(3)	965956	925642	0.010	4.17349	15.00000	Averaged
(4)	1042218	938810	0.010	9.92192	15.00000	Averaged
(5)	753983	686166	0.010	8.99447	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	29693680	0.000	2.57656	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	17428700	0.010	2.76379	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1768517	0.010	11.50440	15.00000	Averaged
(2)	2563316	2370784	0.010	7.51106	15.00000	Averaged
(3)	2213290	2014642	0.010	8.97523	15.00000	Averaged
(4)	2209388	1928172	0.010	12.72822	15.00000	Averaged
(5)	1080491	931396	0.010	13.79881	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT	#
01		M2154	08/28/10	0703				
02		M1232	08/28/10	0723				
03		M1242	08/28/10	0744				
04		M1248	08/28/10	0804				
05		M1262	08/28/10	0824				
06		M1268	08/28/10	0845				
07		XL1660	08/28/10	0905				
08		L1660	08/28/10	0925				
09		ML1660	08/28/10	0946				
10		M1660	08/28/10	1006				
11		MH1660	08/28/10	1026				
12		H1660	08/28/10	1047				
13		XH1660	08/28/10	1107				
14		2M2154	08/28/10	1127				
15		2M1232	08/28/10	1148				
16		2M1242	08/28/10	1208				
17		2M1248	08/28/10	1229				
18		2M1262	08/28/10	1249				
19		2M1268	08/28/10	1309				
20		2M1660	08/28/10	1330				
21								
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28								
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30								
31								
32								

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		MEAN SURROGATE RT FROM INITIAL CALIBRATION				
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	08/31/10	1649		
02		M1232	08/31/10	1709		
03		M1242	08/31/10	1729		
04		M1248	08/31/10	1750		
05		M1262	08/31/10	1810		
06		M1268	08/31/10	1831		
07		M1660	08/31/10	1851		
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QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.05 DCB: 13.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-106-SS	L5X1V1AD	08/31/10	1912	6.05	13.23
02	SD-106-01	L5X101AD	08/31/10	1932	6.05	13.23
03	SD-106-02	L5X111AD	08/31/10	1952	6.05	13.23
04	SD-106-04	L5X121AD	08/31/10	2013	6.05	13.23
05	SD-100-SS	L5X131AD	08/31/10	2033	6.05	13.23
06	SD-100-SS MS	L5X131AU	08/31/10	2053	6.05	13.23
07	SD-100-SS MS	L5X131AV	08/31/10	2114	6.05	13.23
08	SD-100-01	L5X151AD	08/31/10	2134	6.04	13.23
09	SD-100-02	L5X161AD	08/31/10	2155	6.05	13.23
10	SD-100-04	L5X171AD	08/31/10	2215	6.05	13.23
11	SD-98-SS	L5X181AD	08/31/10	2235	6.04	13.23
12	SD-98-01	L5X191AD	08/31/10	2256	6.04	13.23
13	SD-98-02	L5X2A1AD	08/31/10	2316	6.04	13.22
14	SD-DUP4-02	L5X2C1AD	08/31/10	2336	6.04	13.23
15	SD-98-04	L5X2D1AD	08/31/10	2357	6.04	13.23
16	SD-96-01	L5X2F1AD	09/01/10	0037	6.04	13.23
17	PBLK7058	L532V1AA	09/01/10	0118	6.04	13.23
18	LCS7058	L532V1AC	09/01/10	0139	6.04	13.23
19		MH1660	09/01/10	0159	6.05	13.23
20	SD-96-02	L5X2H1AD	09/01/10	0219	6.04	13.23
21	SD-88-SS	L5X2M1AE	09/01/10	0300	6.04	13.23
22	SD-88-01	L5X2P1AK	09/01/10	0320	6.04	13.23
23	SD-88-02	L5X2T1AQ	09/01/10	0341	6.05	13.23
24	SD-88-04	L5X2W1AD	09/01/10	0401	6.04	13.23
25	SD-89-SS	L5X201AW	09/01/10	0421	6.05	13.23
26	SD-89-01	L5X211A3	09/01/10	0442	6.04	13.23
27	SD-DUP5-01	L5X241AD	09/01/10	0502	6.04	13.23
28	SD-89-02	L5X261AE	09/01/10	0523	6.04	13.23
29	SD-89-04	L5X291AD	09/01/10	0543	6.04	13.23
30	SD-99-SS	L5X3A1AE	09/01/10	0603	6.05	13.23
31	SD-99-01	L5X3D1AK	09/01/10	0624	6.04	13.23
32	SD-99-02	L5X3F1AQ	09/01/10	0644	6.05	13.23

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.05 DCB: 13.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-99-02 MS	L5X3F1A5	09/01/10	0704	6.04	13.23
02	SD-99-02 MSD	L5X3F1A6	09/01/10	0725	6.04	13.23
03	SD-99-04	L5X3G1AH	09/01/10	0745	6.04	13.23
04	PBLK7062	L532W1AA	09/01/10	0826	6.04	13.23
05	LCS7062	L532W1AC	09/01/10	0903	6.04	13.23
06		M1660	09/01/10	0924	6.04	13.23
07	SD-96-SS	L5X2E1AD	09/01/10	1004	6.04	13.23
08	SD-96-04	L5X2J1AD	09/01/10	1025	6.04	13.23
09		MH1660	09/01/10	1215	6.04	13.23
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QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-100-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X131AD Date(s) Analyzed: 08/31/10 08/31/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	89.690		
Aroclor-1260	2	10.36	10.33	10.39	63.084		
	3	10.47	10.44	10.50	62.534		
COLUMN 1	4	10.75	10.72	10.78	56.636		
	5	11.17	11.14	11.20	51.803	64.750	
	1	9.73	9.68	9.78	76.448		
	2	10.02	9.97	10.07	82.568		
	3	10.24	10.18	10.28	41.958		
COLUMN 2	4	10.55	10.49	10.59	49.198		
	5	11.03	10.97	11.07	51.908	60.416	7.2
					RPD=	6.9	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-98-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X181AD Date(s) Analyzed: 08/31/10 08/31/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	847.52		
Aroclor-1260	2	10.35	10.33	10.39	592.18		
	3	10.46	10.44	10.50	912.25		
COLUMN 1	4	10.75	10.72	10.78	706.69		
	5	11.17	11.14	11.20	920.81	795.89	
	1	9.72	9.68	9.78	614.91		
	2	10.02	9.97	10.07	709.65		
	3	10.23	10.18	10.28	276.82		
COLUMN 2	4	10.54	10.49	10.59	605.61		
	5	11.02	10.97	11.07	638.25	569.05	39.9
						RPD= 33.2	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-98-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X191AD Date(s) Analyzed: 08/31/10 08/31/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	527.08		
Aroclor-1260	2	10.36	10.33	10.39	168.80		
	3	10.46	10.44	10.50	284.00		
COLUMN 1	4	10.74	10.72	10.78	234.91		
	5	11.17	11.14	11.20	276.82	298.32	
	1	9.72	9.68	9.78	648.95		
	2	10.02	9.97	10.07	437.78		
	3	10.23	10.18	10.28	94.473		
COLUMN 2	4	10.54	10.49	10.59	186.07		
	5	11.02	10.97	11.07	193.21	312.10	4.6
						RPD= 4.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-98-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2A1AD Date(s) Analyzed: 08/31/10 08/31/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	516.23		
Aroclor-1260	2	10.36	10.33	10.39	180.91		
	3	10.46	10.44	10.50	308.35		
COLUMN 1	4	10.74	10.72	10.78	265.65		
	5	11.17	11.14	11.20	289.39	312.10	
	1	9.72	9.68	9.78	583.33		
	2	10.02	9.97	10.07	437.08		
	3	10.23	10.18	10.28	104.69		
COLUMN 2	4	10.54	10.49	10.59	205.01		
	5	11.02	10.97	11.07	217.42	309.51	0.8
					RPD=	0.8	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-98-04

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2D1AD Date(s) Analyzed: 08/31/10 08/31/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	25.409		
Aroclor-1260	2	10.36	10.33	10.39	15.561		
	3	10.46	10.44	10.50	16.085		
COLUMN 1	4	10.75	10.72	10.78	9.9462		
	5	11.17	11.14	11.20	12.868	15.974	
	1	9.72	9.68	9.78	17.757		
	2	10.02	9.97	10.07	19.120		
	3	10.23	10.18	10.28	7.9318		
COLUMN 2	4	10.54	10.49	10.59	9.9705		
	5	11.02	10.97	11.07	12.370	13.430	18.9
						RPD= 17.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-96-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2E1AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	561.68		
Aroclor-1260	2	10.35	10.33	10.39	315.41		
	3	10.46	10.44	10.50	468.97		
COLUMN 1	4	10.74	10.72	10.78	390.56		
	5	11.17	11.14	11.20	450.33	437.39	
	1	9.72	9.68	9.78	410.79		
	2	10.02	9.97	10.07	451.96		
	3	10.23	10.18	10.28	178.93		
COLUMN 2	4	10.55	10.49	10.59	325.48		
	5	11.02	10.97	11.07	346.81	342.80	27.6
						RPD= 24.2	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-96-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2F1AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	914.18		
Aroclor-1260	2	10.35	10.33	10.39	290.32		
	3	10.47	10.44	10.50	658.63		
COLUMN 1	4	10.74	10.72	10.78	501.12		
	5	11.17	11.14	11.20	631.65	599.18	
	1	9.72	9.68	9.78	1052.1		
	2	10.02	9.97	10.07	777.96		
	3	10.23	10.18	10.28	175.39		
COLUMN 2	4	10.54	10.49	10.59	443.94		
	5	11.02	10.97	11.07	426.76	575.23	4.2
						RPD= 4.1	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-96-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2H1AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.35	10.33	10.39	233.65		
Aroclor-1260	2	10.46	10.44	10.50	300.37		
	3	10.74	10.72	10.78	265.53		
COLUMN 1	4	11.17	11.14	11.20	309.62		
	5					277.29	
	1	9.72	9.68	9.78	457.07		
	2	10.02	9.97	10.07	407.44		
	3	10.23	10.18	10.28	117.94		
COLUMN 2	4	10.54	10.49	10.59	197.29		
	5	11.02	10.97	11.07	216.11	279.17	0.7
						RPD= 0.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-96-04

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2J1AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	9.6084		
Aroclor-1260	2	10.36	10.33	10.39	7.0976		
	3	10.46	10.44	10.50	6.7054		
COLUMN 1	4	10.74	10.72	10.78	5.1191		
	5	11.17	11.14	11.20	5.3325	6.7726	
	1	9.72	9.68	9.78	8.8193		
	2	10.02	9.97	10.07	8.7571		
	3	10.23	10.18	10.28	3.5353		
COLUMN 2	4	10.55	10.49	10.59	4.4085		
	5	11.02	10.97	11.07	4.6775	6.0395	12.1
						RPD= 11.4	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-88-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2M1AE Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	2393.1		
Aroclor-1260	2	10.35	10.33	10.39	1265.7		
	3	10.46	10.44	10.50	2366.5		
COLUMN 1	4	10.74	10.72	10.78	1868.8		
	5	11.17	11.14	11.20	2323.5	2043.5	
	1	9.72	9.68	9.78	2188.0		
	2	10.02	9.97	10.07	1850.4		
	3	10.54	10.49	10.59	1494.3		
COLUMN 2	4	11.02	10.97	11.07	1663.5		
	5					1799.1	13.6
						RPD= 12.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-88-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2P1AK Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.36	10.33	10.39	354.18		
Aroclor-1260	2	10.46	10.44	10.50	669.01		
	3	10.74	10.72	10.78	509.86		
COLUMN 1	4	11.17	11.14	11.20	747.64		
	5					570.17	
	1	10.02	9.97	10.07	991.93		
	2	10.23	10.18	10.28	192.70		
	3	10.54	10.49	10.59	426.74		
COLUMN 2	4	11.02	10.97	11.07	466.47		
	5					519.46	9.8
						RPD= 9.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-88-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X2T1AQ Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	10.35	10.33	10.39	119.41		
Aroclor-1260	2	10.46	10.44	10.50	70.203		
	3	10.74	10.72	10.78	56.485		
COLUMN 1	4	11.17	11.14	11.20	64.523		
	5					77.655	
	1	9.73	9.68	9.78	93.051		
	2	10.02	9.97	10.07	93.781		
	3	10.23	10.18	10.28	51.076		
COLUMN 2	4	10.55	10.49	10.59	44.135		
	5	11.02	10.97	11.07	50.088	66.426	16.9
						RPD= 15.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-89-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X201AW Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	849.41		
Aroclor-1260	2	10.36	10.33	10.39	304.81		
	3	10.46	10.44	10.50	504.20		
COLUMN 1	4	10.74	10.72	10.78	419.40		
	5	11.17	11.14	11.20	546.62	524.89	
	1	9.73	9.68	9.78	946.17		
	2	10.02	9.97	10.07	731.84		
	3	10.23	10.18	10.28	175.91		
COLUMN 2	4	10.55	10.49	10.59	341.07		
	5	11.02	10.97	11.07	365.57	512.11	2.5
						RPD= 2.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-89-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X211A3 Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	762.47		
Aroclor-1260	2	10.35	10.33	10.39	235.10		
	3	10.46	10.44	10.50	438.92		
COLUMN 1	4	10.74	10.72	10.78	352.48		
	5	11.17	11.14	11.20	495.22	456.84	
	1	9.72	9.68	9.78	948.53		
	2	10.02	9.97	10.07	631.48		
	3	10.23	10.18	10.28	140.45		
COLUMN 2	4	10.54	10.49	10.59	301.12		
	5	11.02	10.97	11.07	317.27	467.77	2.4
						RPD= 2.4	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-DUP5-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X241AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	884.68		
Aroclor-1260	2	10.35	10.33	10.39	345.02		
	3	10.46	10.44	10.50	695.54		
COLUMN 1	4	10.74	10.72	10.78	441.67		
	5	11.17	11.14	11.20	592.38	591.86	
	1	9.73	9.68	9.78	1035.6		
	2	10.02	9.97	10.07	736.92		
	3	10.23	10.18	10.28	198.00		
COLUMN 2	4	10.55	10.49	10.59	446.84		
	5	11.02	10.97	11.07	473.39	578.15	2.4
						RPD= 2.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-89-02

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X261AE Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	738.34		
Aroclor-1260	2	10.35	10.33	10.39	269.35		
	3	10.46	10.44	10.50	397.12		
COLUMN 1	4	10.74	10.72	10.78	345.27		
	5	11.17	11.14	11.20	389.71	427.96	
	1	9.73	9.68	9.78	732.72		
	2	10.02	9.97	10.07	544.60		
	3	10.23	10.18	10.28	140.79		
COLUMN 2	4	10.54	10.49	10.59	263.98		
	5	11.02	10.97	11.07	271.01	390.62	9.6
						RPD= 9.1	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

SD-89-04

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X291AD Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.98	9.96	10.02	11.728		
Aroclor-1260	2	10.36	10.33	10.39	5.7179		
	3	10.46	10.44	10.50	6.9474		
COLUMN 1	4	10.74	10.72	10.78	6.0393		
	5	11.17	11.14	11.20	6.0188	7.2904	
	1	9.72	9.68	9.78	13.393		
	2	10.02	9.97	10.07	9.6690		
	3	10.23	10.18	10.28	3.0482		
COLUMN 2	4	10.55	10.49	10.59	4.0515		
	5	11.02	10.97	11.07	4.9626	7.0249	3.8
						RPD= 3.7	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-99-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H200635

Lab Sample ID: L5X3A1AE Date(s) Analyzed: 09/01/10 09/01/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.99	9.96	10.02	7.2200		
Aroclor-1260	2	10.36	10.33	10.39	5.1125		
	3	10.46	10.44	10.50	5.5207		
COLUMN 1	4	10.74	10.72	10.78	4.5266		
	5	11.17	11.14	11.20	4.7042	5.4168	
	1	9.73	9.68	9.78	7.0378		
	2	10.02	9.97	10.07	7.2036		
	3	10.23	10.18	10.28	3.5878		
COLUMN 2	4	10.55	10.49	10.59	4.3743		
	5	11.03	10.97	11.07	4.4503	5.3308	1.6
						RPD= 1.6	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

Sample Quantitation

Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

GC Semivolatiles

Lot-Sample #...:	C0H200635-018	Work Order #...:	L5X2M1AE	Matrix.....:	SOLID
Date Sampled...:	08/19/10	Date Received..:	08/20/10	MS Run #.....:	0237023
Prep Date.....:	08/25/10	Analysis Date..:	09/01/10		
Prep Batch #...:	0237058	Analysis Time..:	02:40		
Dilution Factor:	0.49	Initial Wgt/Vol:	15.3 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	69	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.3
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.7
Aroclor 1260	**6600** ✓	**26**	**ug/kg**	3.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	104	(35 - 140)
Decachlorobiphenyl	105	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Response/RRF = on-col (ng) x $\frac{\text{Final volume (uL)}}{\text{sample weight (g)}}$

Peak 1 = $\frac{6408844}{1750342}$ = 3.66148 ✓ x $\frac{10,000}{15.3}$ = ~~3782.63~~ = 2393

Peak 2 = $\frac{2744505}{1417188}$ = 1.93658 ✓ x $\frac{10,000}{15.3}$ = ~~[illegible]~~ = 1266

Peak 3 = $\frac{4060236}{1121377}$ = 3.62076 ✓ x $\frac{10,000}{15.3}$ = ~~3740.6~~ = 2367

Peak 4 = $\frac{3001607}{1049784}$ = 2.85942 ✓ x $\frac{10,000}{15.3}$ = ~~2954.07~~ = 1869

Peak 5 = $\frac{9067919}{2550769}$ = 3.55497 ✓ x $\frac{10,000}{15.3}$ = ~~3672.64~~ = 2324

Sum = ~~16150.67~~ 10219

Average = ~~[illegible]~~ 2043.8 ✓

2043.8 / (% solids) 0.31 = 6593 ✓

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Y0801330.D
Report Date: 01-Sep-2010 16:50

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc14.i\08280.b\Y0801330.D
Lab Smp Id: L5X2M1AE Client Smp ID: SD-88-SS
Inj Date : 01-SEP-2010 02:40
Operator : 402360 Inst ID: gc14.i
Smp Info : L5X2M1AE,08290.B
Misc Info : C0H200635-018
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc14.i\08280.b\PCBA.m
Meth Date : 01-Sep-2010 15:53 guptaa Quant Type: ESTD
Cal Date : 28-AUG-2010 11:27 Cal File: Y0801120.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: PITPC-106

Concentration Formula: Amt * DF * (Vt/Vi)/Ws * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract
Vi	1.000	volume injected
Ws	15.300	initial volume of sample
Cpnd Variable		Local Compound Variable

			CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ug/Kg)	TARGET RANGE	RATIO
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
6.017	6.022	-0.005	448292	0.02071	13.535		
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Peaks not detected for Quant. or Qual. signal(s).							
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Y0801330.D
Report Date: 01-Sep-2010 16:50

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Operator disabled compound identification.							
8 Aroclor-1260					CAS #: 11096-82-5		
9.982	9.990	-0.008	6408844	3.66148	2393.1	0.00- 0.00	0.00
10.353	10.359	-0.006	2744505	1.93658	1265.7	115.86- 115.86	0.00
10.463	10.468	-0.005	4060236	3.62076	2366.5	136.91- 136.91	0.00
10.743	10.748	-0.005	3001607	2.85926	1868.8	140.00- 140.00	0.00
11.168	11.174	-0.006	9067919	3.55497	2323.5	128.33- 128.33	0.00
Average of Peak Concentrations =					2043.5		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.031	13.038	-0.007	225883	0.02109	13.787		

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Z0801330.D
Report Date: 01-Sep-2010 16:53

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc14.i\08280.b\Z0801330.D
Lab Smp Id: L5X2M1AE Client Smp ID: SD-88-SS
Inj Date : 01-SEP-2010 03:00
Operator : 402360 Inst ID: gc14.i
Smp Info : L5X2M1AE,08290.B
Misc Info : C0H200635-018
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc14.i\08280.b\yPCBB.m
Meth Date : 01-Sep-2010 15:56 guptaa Quant Type: ESTD
Cal Date : 28-AUG-2010 11:07 Cal File: Z0801120.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: PITPC-106

Concentration Formula: Amt * DF * (Vt/Vi)/Ws * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract
Vi	1.000	volume injected
Ws	15.300	initial volume of sample
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO	
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
6.044	6.047	-0.003	597510	0.01960	12.813			(R)
1 Aroclor-1221					CAS #: 11104-28-2			
Operator disabled compound identification.								
4 Aroclor-1016					CAS #: 12674-11-2			
Operator disabled compound identification.								
3 Aroclor-1232					CAS #: 11141-16-5			
Operator disabled compound identification.								

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Z0801330.D
Report Date: 01-Sep-2010 16:53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE	RATIO	
6 Aroclor-1248					CAS #: 12672-29-6			
Operator disabled compound identification.								
5 Aroclor-1242					CAS #: 53469-21-9			
Operator disabled compound identification.								
7 Aroclor-1254					CAS #: 11097-69-1			
Operator disabled compound identification.								
9 Aroclor-1262					CAS #: 37324-23-5			
Operator disabled compound identification.								
8 Aroclor-1260					CAS #: 11096-82-5			
9.723	9.727	-0.004	6690049	3.34766	2188.0	0.00- 0.00	0.00	
10.017	10.020	-0.003	7257094	2.83114	1850.4	115.86- 115.86	0.00	
10.233	10.233	0.000	0	0.00000	0.00000	136.91- 136.91	0.00	
10.542	10.544	-0.002	5051336	2.28631	1494.3	140.00- 140.00	0.00	
11.021	11.023	-0.002	2750043	2.54518	1663.5	128.33- 128.33	0.00	
Average of Peak Concentrations = 1799.1								
10 Aroclor-1268					CAS #: 11100-14-4			
Operator disabled compound identification.								
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
13.226	13.229	-0.003	297654	0.01661	10.854			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

GC/MS SEMIVOLATILE
MISCELLANEOUS

Batch # 0237043 (42)

Soxtherm Extraction W[illegible]ksheet

TestAmerica Pittsburgh
Logbook ID: OP3610

Baker OP0152-10

Start Date/Time	Date Completed	Parameter	Method	Solvent	Solvent Lot	Solvent Mfg	GPC Number
8-25-10 04:45	8-25-10	LL8270C	Soxtherm	MeCl2 / Acetone	OP0132-10	Baker	N/A

	Lot Number	Sample ID	Sample Weight (g)	Final Volume (mL)	Surrogate #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	GPC Date
1.	COH200635	BLK	30.0	0.5	BNA0639-10	0.5	N/A	N/A	N/A
2.		LCS	30.0,				BNA0304-10	0.5	
3.		MS-002	30.0,						
4.		MSD-002	30.0,				BNA0304-10	0.5	
5.		001	30.2,				N/A	N/A	
6.		002	30.0,						
7.		003	30.0,						
8.		004	30.2,						
9.		005	30.4,						
10.		006	30.0,						
11.		007	30.1,						
12.		008	30.2,						
13.		009	30.0,						
14.		010	30.0,						
15.		011	30.3,						
16.		012	30.0,						
17.		013	30.4,						
18.		014	30.0,						
19.		015	30.0,						
20.		016	30.0,						
21.		017	30.0,						
22.		018	30.0,						
23.		019	30.0,						
24.		020	30.0,	0.5	BNA0639-10	0.5			
Analyst:	KG	KG	KG	KG	BP	BP	BP	BP	KG

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
All Above	8-25-10	1200	K. [signature]		Org. Prep.	8-25-10	1210	K. [signature]		RF04-BNA
"	8/26/10	1000			[signature]	8/26/10	1400			[signature]

Start Temp: End Temp: (+/- 5%)

Sodium Sulfate Mfg/Lot Number: Baker | OP0159-10

Magnesium Sulfate Mfg/Lot Number: Baker | OP0158-10

N2 Blow Down Temp: 320

Comments:

Reviewed by: K. [signature]

Date: 8-25-10

Balance ID: 1120122641

Cleanups TBA: N/A H2SO4: N/A Carboprep: N/A

printed on: 13-Jul-10 11:21:34 AM

v2 06/16/2005

(1001 - 1883)

1874

COH200635

Batch# 0237044 (42)

Soxtherm Extraction W[illegible]sheet

TestAmerica Pittsburgh
Logbook ID: OP3610 OP0152-10

Start Date\Time: 8-25-10/05:20 | Date Completed: 8-25-10 | Parameter: LL8270C | Method: Soxtherm | Solvent: MeCl/Acetone OP0132/0 | Solvent Lot | Solvent Mfg: Baker | GPC Number: N/A

	Lot Number	Sample ID	Sample Weight (g)	Final Volume (mL)	Surrogate #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	GPC Date
1.	COH200635	BLK	30.0,	0.5	BNA0639-10	0.5	N/A	N/A	N/A
2.		LCS	30.0,				BNA0304-10	0.5	
3.		MS-026	30.0,				↓	↓	
4.		MSD-026	30.0,				BNA0304-10	0.5	
5.		021	30.2,				N/A	N/A	
6.		022	30.3,						
7.		023	30.0,						
8.		024	30.1						
9.		025	30.0,						
10.		026	30.0,						
11.		027	30.2,						
12.		028	30.0,						
13.		029	30.3,						
14.		030	30.0,	0.5	BNA0639-10	0.5			
15.									
16.									
17.									
18.									
19.									
20.									
21.			KG						
22.			8-25-10						
23.									
24.									
Analyst:		KG	KG	KG	KG	BP	BP	BP	BP	KG

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
All Above	8/25/10	1200	K. Deck		GC Prep	8/26/10	1210	K. Deck		RF-04-BN1
"	8/26/10	1000	Deck			8/26/10	1400			
"	8/27/10	0840				8/30/10	1057			
"	8/31/10	1000				8/31/10	1120			

Start Temp: | End Temp: | (+/- 5%)

Sodium Sulfate Mfg/Lot Number: Baker/OP0159-10

Magnesium Sulfate Mfg/Lot Number: Baker/OP0158-0 | N2 Blow Down Temp:

Comments:

Reviewed by: K. Deck | Date: 8-25-10

Cleanups | TBA: N/A | H2SO4: N/A | Carboprep: N/A | Balance ID: 1120122641

printed on: 13-Jul-10 11:21:34 AM

v2 06/16/2005

(1001 - 1883) 1875 COH200635

Simulate Run Sequence Tue Aug 31 04:59:27 2010

Instrument Name: 731
Sequence File: C:\HPCHEM\1\SEQUENCE\V083010.S
Comment: TA-PITT HP5973-731 LOG 2ul inj 100ul+1ul int
Operator: 003200
Data Path: D:\hpchem\1\data\V083010.b\
Method Path: C:\HPCHEM\1\METHODS\

LL 8270c/d 8/30/10 VVP

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1	V0830DFT	DFTPL	DFTPP (25ug/mL) bna0464-10
2)	Sample	1	V0830DF1	DFTPP	DFTPP (25ug/mL) bna0464-10
3)	Sample	2	V0830IC1	GCMSF2	SSTD0.4(0.2ug/mL) BNA0660-10 8270c/d
4)	Sample	3	V0830IC2	GCMSF2	SSTD2.0(1.0ug/mL) BNA0661-10 8270c/d
5)	Sample	4	V0830IC3	GCMSF2	SSTD4.0(2.0ug/mL) BNA0675-10 8270c/d
6)	Sample	5	V0830IC4	GCMSF2	SSTD10(5.0ug/mL) BNA0663-10 8270c/d
7)	Sample	6	V0830IC5	GCMSF2	SSTD20(10ug/mL) BNA0664-10 8270c/d
8)	Sample	7	V0830IC6	GCMSF2	SSTD40(20ug/mL) BNA0665-10 8270c/d
9)	Sample	8	V0830IC7	GCMSF2	SSTD60(30ug/mL) BNA0666-10 8270c/d
10)	Sample	9	V0830IC8	GCMSF2	SSTD80(40ug/mL) BNA0667-10 8270c/d
11)	Sample	10	V0830STV	GCMSF2	STDVER20(10ug/mL) BNA0670-10 8270c/d
12)	Sample	11	V0830S01	GCMSF2	MDLVERBLK 8/23/10 h2o 8270c/d
13)	Sample	12	V0830S02	GCMSF2	MDLVER#A 8/23/10 h2o 8270c/d
14)	Sample	13	V0830S03	GCMSF2	MDLVER#B 8/23/10 h2o 8270c/d
15)	Sample	14	V0830S04	GCMSF2	C0G090566-001 7/26/10 h2o (0208111)8270c/d
16)	Sample	15	V0830S05	GCMSF2	C0G090566-001 7/26/10 h2o (0208111)8270c/d
17)	Sample	16	V0830S06	GCMSF2	C0H040591-001 8/11/10 h2o (0223148)8270d
18)	Sample	17	V0830S07	GCMSF2	C0H040591-002 8/11/10 h2o (0223148)8270d
19)	Sample	18	V0830S08	GCMSF2	C0H040591-003 8/11/10 h2o (0223148)8270d
20)	Sample	19	V0830S09	GCMSF2	C0H040591-004 8/11/10 h2o (0223148)8270d
21)	Sample	20	V0830S10	GCMSF2	MDLVER#A 8/5/10 soil 8270c/d
22)	Sample	21	V0830S11	GCMSF2	MDLVER#B 8/5/10 soil 8270c/d
23)	Sample	22	V0830S12	GCMSF2	MDLVER#C 8/5/10 soil 8270c/d
24)	Sample	23	V0830S13	GCMSF2	MDLVER#D 8/5/10 soil 8270c/d
25)	Sample	24	V0830S14	GCMSF2	C0G090566-001 8/5/10 soil (217066)8270c/d
26)	Sample	25	V0830S15	GCMSF2	C0G090566-001 8/5/10 soil (217066)8270c/d
27)	Sample	26	V0830S16	GCMSF2	C0H040591-005 8/1310 soil (0225026)8270d
28)	Sample	27	V0830S17	GCMSF2	C0H040591-006 8/11/10 h2o (0223148)8270d
29)	Sample	28	V0830S18	GCMSF2	C0H040591-007 8/11/10 h2o (0223148)8270d
30)	Sample	29	V0830S19	GCMSF2	C0H040591-008 8/11/10 h2o (0223148)8270d
31)	Sample	30	V0830S20	GCMSF2	SURVER#A 7/26/10 h2o 8270c/d
32)	Sample	31	V0830S21	GCMSF2	SURVER#A 8/5/10 soil 8270c/d
33)	Sample	32	V0830S22	GCMSF2	SURVER#B 7/26/10 h2o 8270c/d
34)	Sample	33	V0830S23	GCMSF2	SURVER#B 8/5/10 soil 8270c/d
35)	Sample	100	V0830B01	GCMSF2	BLK 8270c
36)	Sample	100	V0830B02	GCMSF2	BLK 8270c
37)	Sample	100	V0830B03	GCMSF2	BLK 8270c
38)	Sample	100	V0830B04	GCMSF2	BLK 8270c
39)	Sample	100	V0830B05	GCMSF2	BLK 8270c

Bytes Needed: 2217159 Space on drive D: 1023932928
Sequence Verification Done!

Simulate Run Sequence Mon Jun 07 06:38:18 2010

Instrument Name: 731
Sequence File: C:\HPCHEM\1\SEQUENCE\V060410.S
Comment: TA-PITT HP5973-731 LOG 2ul inj 100ul+1ul int
Operator: 003200
Data Path: D:\hpchem\1\data\V060410.b\
Method Path: C:\HPCHEM\1\METHODS\

LC8270c/d/625
6/4/10
VVP

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1	V0604DFT	DFTPP	DFTPP (25ug/mL) bna0170-10
2)	Sample	1	V0604DF1	DFTPP	DFTPP (25ug/mL) bna0170-10
3)	Sample	2	V0604IC1	GCMSF2	SSTD0.4(0.2ug/mL) BNA0396-10 8270c/d
4)	Sample	3	V0604IC2	GCMSF2	SSTD2.0(1.0ug/mL) BNA0397-10 8270c/d
5)	Sample	4	V0604IC3	GCMSF2	SSTD4.0(2.0ug/mL) BNA0423-10 8270c/d
6)	Sample	5	V0604IC4	GCMSF2	SSTD10(5.0ug/mL) BNA0399-10 8270c/d
7)	Sample	6	V0604IC5	GCMSF2	SSTD20(10ug/mL) BNA0400-10 8270c/d
8)	Sample	7	V0604IC6	GCMSF2	SSTD40(20ug/mL) BNA0401-10 8270c/d
9)	Sample	8	V0604IC7	GCMSF2	SSTD60(30ug/mL) BNA0402-10 8270c/d
10)	Sample	9	V0604IC8	GCMSF2	SSTD80(40ug/mL) BNA0403-10 8270c/d
11)	Sample	10	V0604STV	GCMSF2	STDVER20(10ug/mL) BNA0414-10 8270c/d
12)	Sample	11	V0604S01	GCMSF2	MDLVERBLK 5/11/10 soil 8270c/d
13)	Sample	12	V0604S02	GCMSF2	MDLVER#A 5/11/10 soil 8270c/d
14)	Sample	13	V0604S03	GCMSF2	MDLVER#B 5/11/10 soil 8270c/d
15)	Sample	14	V0604S04	GCMSF2	MDLVER#C 5/11/10 soil 8270c/d
16)	Sample	15	V0604S05	GCMSF2	MDLVER#D 5/11/10 soil 8270c/d
17)	Sample	16	V0604S06	GCMSF2	SURRVER#A 5/11/10 soil 8270c/d
18)	Sample	17	V0604S07	GCMSF2	SURRVER#B 5/11/10 soil 8270c/d
19)	Sample	18	V0604S08	GCMSF2	C0E110437-002 5/11/10 soil 8270c/d
20)	Sample	19	V0604S09	GCMSF2	C0E110437-002 5/11/10 soil 8270c/d
21)	Sample	20	V0604S10	GCMSF2	MDLVERBLK 5/18/10 h2o 8270c/d
22)	Sample	21	V0604S11	GCMSF2	MDLVER#A 5/18/10 h2o 8270c/d
23)	Sample	22	V0604S12	GCMSF2	MDLVER#B 5/18/10 h2o 8270c/d
24)	Sample	23	V0604S13	GCMSF2	SURRVER#A 5/18/10 h2o 8270c/d
25)	Sample	24	V0604S14	GCMSF2	SURRVER#B 5/18/10 h2o 8270c/d
26)	Sample	25	V0604S15	GCMSF2	C0E110437-001 5/18/10 h2o 8270c/d
27)	Sample	26	V0604S16	GCMSF2	C0E110437-001 5/18/10 h2o 8270c/d
28)	Sample	27	V0604S17	GCMSF2	C0E180590-BLK 6/2/10 h2o (0153159) 8270c
29)	Sample	28	V0604S18	GCMSF2	C0E180590-LCS 6/2/10 h2o (0153159) 8270c
30)	Sample	29	V0604S19	GCMSF2	C0E180590-LCSD 6/2/10 h2o (0153159) 8270c
31)	Sample	30	V0604S20	GCMSF2	C0E180590-001 6/2/10 h2o (0153159) 8270c
32)	Sample	31	V0604S21	GCMSF2	C0E180590-002 6/2/10 h2o (0153159) 8270c
33)	Sample	32	V0604S22	GCMSF2	C0E290412-008 X10 6/2/10 h2o (0153159) 8270c
34)	Sample	33	V0604S23	GCMSF2	C0E290412-009 X10 6/2/10 h2o (0153159) 8270c
35)	Sample	100	V0604B01	GCMSF2	BLK 8270c
36)	Sample	100	V0604B02	GCMSF2	BLK 8270c
37)	Sample	100	V0604B03	GCMSF2	BLK 8270c
38)	Sample	100	V0604B04	GCMSF2	BLK 8270c
39)	Sample	34	V0604S24	GCMSF2	C0E270422-BLK 6/1/10 h2o (0152168) 625
40)	Sample	39	V0604S29	GCMSF2	C0E280441-BLK 6/1/10 h2o (0152164) 625
41)	Sample	48	V0604S38	GCMSF2	C0F020421-BLK 6/3/10 h2o (0154090) 625
42)	Sample	49	V0604S39	GCMSF2	C0F020421-LCS 6/3/10 h2o (0154090) 625
43)	Sample	50	V0604S40	GCMSF2	C0F020421-LCSD 6/3/10 h2o (0154090) 625
44)	Sample	40	V0604S30	GCMSF2	C0E280441-LCS 6/1/10 h2o (0152164) 625
45)	Sample	41	V0604S31	GCMSF2	C0E280441-LCSD 6/1/10 h2o (0152164) 625
46)	Sample	35	V0604S25	GCMSF2	C0E270422-LCS 6/1/10 h2o (0152168) 625
47)	Sample	36	V0604S26	GCMSF2	C0E270422-LCSD 6/1/10 h2o (0152168) 625
48)	Sample	37	V0604S27	GCMSF2	C0E270422-002 X20 6/1/10 h2o (0152168) 625
49)	Sample	38	V0604S28	GCMSF2	C0E280611-001 6/1/10 h2o (0152168) 625
50)	Sample	42	V0604S32	GCMSF2	C0E280441-001 6/1/10 h2o (0152164) 625
51)	Sample	43	V0604S33	GCMSF2	C0E280441-002 6/1/10 h2o (0152164) 625
52)	Sample	44	V0604S34	GCMSF2	C0E280441-003 6/1/10 h2o (0152164) 625
53)	Sample	45	V0604S35	GCMSF2	C0E280441-004 6/1/10 h2o (0152164) 625
54)	Sample	46	V0604S36	GCMSF2	C0E280441-005 6/1/10 h2o (0152164) 625
55)	Sample	Not Needed 47	V0604S37	GCMSF2	C0E280441-002 X5 6/1/10 h2o (0152164) 625
56)	Sample	51	V0604S41	GCMSF2	C0F020421-002 X20 6/3/10 h2o (0154090) 625
57)	Sample	52	V0604S42	GCMSF2	C0F020505-004 6/3/10 h2o (0154090) 625
58)	Sample	100	V0604B05	GCMSF2	BLK 8270c
59)	Sample	100	V0604B06	GCMSF2	BLK 8270c
60)	Sample	100	V0604B07	GCMSF2	BLK 8270c

Bytes Needed: 3000000 Space on drive D: 1023932928

Simulate Run Sequence Fri Aug 27 04:59:13 2010

Instrument Name: 731
Sequence File: C:\HPCHEM\1\SEQUENCE\V082610.S
Comment: TA-PITT HP5973-731 LOG 2ul inj 100ul+1ul int
Operator: 003200
Data Path: D:\hpchem\1\data\V082610.b\
Method Path: C:\HPCHEM\1\METHODS\

LC 8270c
8/26/10
NVP

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1	V0826DFT	DFTPL	DFTPP (25ug/mL) bna0464-10
2)	Sample	1	V0826DF1	DFTPP	DFTPP (25ug/mL) bna0464-10
3)	Sample	2	V08260CC	GCMSF2	SSTD4.0(2.0ug/mL) BNA0668-10 8270c/d
4)	Sample	4	V0826002	GCMSF2	C0H200635-BLK 8/25/10 soil(0237043)8270c
5)	Sample	5	V0826003	GCMSF2	C0H200635-LCS 8/25/10 soil(0237043)8270c
6)	Sample	3	V0826001	GCMSF2	C0H190588-020 X2 8/23/10 soil(0235285)8270c
7)	Sample	6	V0826004	GCMSF2	C0H200635-001 X10 8/25/10 soil(0237043)8270c
8)	Sample	7	V0826005	GCMSF2	C0H200635-002 X10 8/25/10 soil(0237043)8270c
9)	Sample	8	V0826006	GCMSF2	C0H200635-002MS X10 8/25/10soil(0237043)8270c
10)	Sample	9	V0826007	GCMSF2	C0H200635-002MSD X10 8/25/10soil(0237043)8270
11)	Sample	10	V0826008	GCMSF2	C0H200635-003 X10 8/25/10 soil(0237043)8270c
12)	Sample	11	V0826009	GCMSF2	C0H200635-004 X10 8/25/10 soil(0237043)8270c
13)	Sample	12	V0826010	GCMSF2	C0H200635-005 X5 8/25/10 soil(0237043)8270c
14)	Sample	13	V0826011	GCMSF2	C0H200635-006 X5 8/25/10 soil(0237043)8270c
15)	Sample	14	V0826012	GCMSF2	C0H200635-007 X10 8/25/10 soil(0237043)8270c
16)	Sample	15	V0826013	GCMSF2	C0H200635-008 X10 8/25/10 soil(0237043)8270c
17)	Sample	16	V0826014	GCMSF2	C0H200635-009 X10 8/25/10 soil(0237043)8270c
18)	Sample	17	V0826015	GCMSF2	C0H200635-010 X10 8/25/10 soil(0237043)8270c
19)	Sample	18	V0826016	GCMSF2	C0H200635-011 X10 8/25/10 soil(0237043)8270c
20)	Sample	19	V0826017	GCMSF2	C0H200635-012 X10 8/25/10 soil(0237043)8270c
21)	Sample	20	V0826018	GCMSF2	C0H200635-013 X5 8/25/10 soil(0237043)8270c
22)	Sample	21	V0826019	GCMSF2	C0H200635-014 X10 8/25/10 soil(0237043)8270c
23)	Sample	22	V0826020	GCMSF2	C0H200635-015 X10 8/25/10 soil(0237043)8270c
24)	Sample	23	V0826021	GCMSF2	C0H200635-016 X10 8/25/10 soil(0237043)8270c
25)	Sample	24	V0826022	GCMSF2	C0H200635-017 X2 8/25/10 soil(0237043)8270c
26)	Sample	25	V0826023	GCMSF2	C0H200635-018 X10 8/25/10 soil(0237043)8270c
27)	Sample	26	V0826024	GCMSF2	C0H200635-019 X10 8/25/10 soil(0237043)8270c
28)	Sample	27	V0826025	GCMSF2	C0H200635-020 X10 8/25/10 soil(0237043)8270c
29)	Sample	28	V0826026	GCMSF2	C0H200635-021 X10 8/25/10 soil(0237044)8270c
30)	Sample	29	V0826027	GCMSF2	C0H200635-022 X10 8/25/10 soil(0237044)8270c
31)	Sample	30	V0826028	GCMSF2	C0H200635-023 X10 8/25/10 soil(0237044)8270c
32)	Sample	31	V0826029	GCMSF2	C0H200635-024 X10 8/25/10 soil(0237044)8270c
33)	Sample	32	V0826030	GCMSF2	C0H200635-025 X10 8/25/10 soil(0237044)8270c
34)	Sample	33	V0826031	GCMSF2	C0H200635-027 X10 8/25/10 soil(0237044)8270c
35)	Sample	34	V0826032	GCMSF2	C0H200635-028 X10 8/25/10 soil(0237044)8270c
36)	Sample	35	V0826033	GCMSF2	C0H200635-029 X10 8/25/10 soil(0237044)8270c
37)	Sample	100	V0826B01	GCMSF2	BLK 8270c
38)	Sample	100	V0826B02	GCMSF2	BLK 8270c
39)	Sample	100	V0826B03	GCMSF2	BLK 8270c
40)	Sample	100	V0826B04	GCMSF2	BLK 8270c
41)	Sample	100	V0826B05	GCMSF2	BLK 8270c

Bytes Needed: 2084167 Space on drive D: 1023932928
Sequence Verification Done!

Simulate Run Sequence Tue Aug 31 10:00:43 2010

Instrument Name: 731
Sequence File: C:\HPCHEM\1\SEQUENCE\V082710.S
Comment: TA-PITT HP5973-731 LOG 2ul inj 100ul+1ul int
Operator: 003200
Data Path: D:\hpchem\1\data\V082710.b\
Method Path: C:\HPCHEM\1\METHODS\

LC8270c 8/27/10 VVP

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1	V0827DFT	DFTPL	DFTPP (25ug/mL) bna0464-10
2)	Sample	1	V0827DF1	DFTPP	DFTPP (25ug/mL) bna0464-10
3)	Sample	2	V08270CC	GCMSF2	SSTD4.0(2.0ug/mL) BNA0668-10 8270c/d
4)	Sample	3	V0827001	GCMSF2	C0H200635-BLK 8/25/10 soil(0237044)8270c
5)	Sample	9	V0827007	GCMSF2	C0H210447-BLK 8/24/10soil(0236295)8270c
6)	Sample	4	V0827002	GCMSF2	C0H200635-LCS 8/25/10 soil(0237044)8270c
7)	Sample	10	V0827008	GCMSF2	C0H210447-LCS 8/24/10soil(0236295)8270c
8)	Sample	11	V0827009	GCMSF2	C0H210447-LCSD 8/24/10soil(0236295)8270c
9)	Sample	5	V0827003	GCMSF2	C0H200635-026 X5 8/25/10 soil(0237044)8270c
10)	Sample	6	V0827004	GCMSF2	C0H200635-026MS X5 8/25/10 soil(0237044)8270c
11)	Sample	7	V0827005	GCMSF2	C0H200635-026MSD X5 8/25/10 soil(0237044)8270
12)	Sample	8	V0827006	GCMSF2	C0H200635-030 X5 8/25/10soil(0237044)8270c
13)	Sample	12	V0827010	GCMSF2	C0H210447-001 X25 8/24/10soil(0236295)8270c
14)	Sample	13	V0827011	GCMSF2	C0H210447-002 X2 8/24/10soil(0236295)8270c
15)	Sample	14	V0827012	GCMSF2	C0H210447-003 X2 8/24/10soil(0236295)8270c
16)	Sample	15	V0827013	GCMSF2	C0H210447-004 X3 8/24/10soil(0236295)8270c
17)	Sample	16	V0827014	GCMSF2	C0H210447-005 X25 8/24/10soil(0236295)8270c
18)	Sample	17	V0827015	GCMSF2	C0H210447-006 X5 8/24/10soil(0236295)8270c
19)	Sample	18	V0827016	GCMSF2	C0H210447-007 8/24/10soil(0236295)8270c
20)	Sample	19	V0827017	GCMSF2	C0H210447-008 8/24/10soil(0236295)8270c
21)	Sample	20	V0827018	GCMSF2	C0H210447-009 X25 8/24/10soil(0236295)8270c
22)	Sample	21	V0827019	GCMSF2	C0H210447-010 X10 8/24/10soil(0236295)8270c
23)	Sample	22	V0827020	GCMSF2	C0H210447-011 X2 8/24/10soil(0236295)8270c
24)	Sample	23	V0827021	GCMSF2	C0H210447-012 X3 8/24/10soil(0236295)8270c
25)	Sample	24	V0827022	GCMSF2	C0H210447-013 X3 8/24/10soil(0236295)8270c
26)	Sample	25	V0827023	GCMSF2	C0H210447-014 X3 8/24/10soil(0236295)8270c
27)	Sample	26	V0827024	GCMSF2	C0H210447-015 X2 8/24/10soil(0236295)8270c
28)	Sample	27	V0827025	GCMSF2	C0H210447-001 X100 8/24/10soil(0236295)8270c
29)	Sample	28	V0827026	GCMSF2	C0H210447-005 X100 8/24/10soil(0236295)8270c
30)	Sample	29	V0827027	GCMSF2	C0H210447-009 X100 8/24/10soil(0236295)8270c
31)	Sample	100	V0827B01	GCMSF2	BLK 8270c
32)	Sample	100	V0827B02	GCMSF2	BLK 8270c
33)	Sample	100	V0827B03	GCMSF2	BLK 8270c
34)	Sample	100	V0827B04	GCMSF2	BLK 8270c
35)	Sample	100	V0827B05	GCMSF2	BLK 8270c

Bytes Needed: 2017159 Space on drive D: 1023932928
Sequence Verification Done!

Simulate Run Sequence Wed Sep 01 02:49:09 2010

Instrument Name: 731
Sequence File: C:\HPCHEM\1\SEQUENCE\V083110.S
Comment: TA-PITT HP5973-731 LOG 2ul inj 100ul+1ul int
Operator: 003200
Data Path: D:\hpchem\1\data\V083110.b\
Method Path: C:\HPCHEM\1\METHODS\

LL 8270c/625
8/31/10
VVP

Line	Type	Vial	DataFile	Method	Sample Name
1)	Sample	1	V0831DFT	DFTPL	DFTPP (25ug/mL) bna0464-10
2)	Sample	1	V0831DF1	DFTPP	DFTPP (25ug/mL) bna0464-10
3)	Sample	2	V08310CC	GCMSF2	SSTD4.0(2.0ug/mL) BNA0675-10 8270c/d
4)	Sample	6	V0831004	GCMSF2	C0H260589-BLK 8/30/10 wdtclp(0242351)8270c
5)	Sample	10	V0831008	GCMSF2	C0H270414-BLK 8/30/10 h2o(0242166)8270c
6)	Sample	7	V0831005	GCMSF2	C0H260589-LCS 8/30/10 wdtclp(0242351)8270c
7)	Sample	8	V0831006	GCMSF2	C0H260589-LCSD 8/30/10 wdtclp(0242351)8270c
8)	Sample	11	V0831009	GCMSF2	C0H270414-LCS 8/30/10 h2o(0242166)8270c
9)	Sample	12	V0831010	GCMSF2	C0H270414-LCSD 8/30/10 h2o(0242166)8270c
10)	Sample	3	V0831001	GCMSF2	C0H200635-030 X5 8/25/10soil(0237044)8270c
11)	Sample	4	V0831002	GCMSF2	C0H210447-002 X2 8/24/10soil(0236295)8270c
12)	Sample	5	V0831003	GCMSF2	C0H210447-009 X25 8/24/10soil(0236295)8270c
13)	Sample	9	V0831007	GCMSF2	C0H260589-001 8/30/10 wdtclp(0242351)8270c
14)	Sample	13	V0831011	GCMSF2	C0H270414-001 8/30/10 h2o(0242166)8270c
15)	Sample	14	V0831012	GCMSF2	C0H270414-002 8/30/10 h2o(0242166)8270c
16)	Sample	15	V0831013	GCMSF2	C0H270414-003 8/30/10 h2o(0242166)8270c
17)	Sample	16	V0831014	GCMSF2	C0H270414-004 8/30/10 h2o(0242166)8270c
18)	Sample	17	V0831015	GCMSF2	C0H270414-006 8/30/10 h2o(0242166)8270c
19)	Sample	18	V0831016	GCMSF2	C0H270414-007 8/30/10 h2o(0242166)8270c
20)	Sample	19	V0831017	GCMSF2	C0H270414-008 8/30/10 h2o(0242166)8270c
21)	Sample	20	V0831018	GCMSF2	C0H270414-009 8/30/10 h2o(0242166)8270c
22)	Sample	21	V0831019	GCMSF2	C0H270414-010 8/30/10 h2o(0242166)8270c
23)	Sample	22	V0831020	GCMSF2	C0H270414-012 8/30/10 h2o(0242166)8270c
24)	Sample	23	V0831021	GCMSF2	C0H270414-015 8/30/10 h2o(0242166)8270c
25)	Sample	24	V0831022	GCMSF2	C0H280430-001 8/30/10 h2o(0242166)8270c
26)	Sample	25	V0831023	GCMSF2	C0H280430-002 8/30/10 h2o(0242166)8270c
27)	Sample	26	V0831024	GCMSF2	C0H270461-001 8/30/10 h2o(0242166)8270c
28)	Sample	27	V0831025	GCMSF2	C0H270461-002 8/30/10 h2o(0242166)8270c
29)	Sample	28	V0831026	GCMSF2	C0H270461-003 8/30/10 h2o(0242166)8270c
30)	Sample	29	V0831027	GCMSF2	C0H270486-001 8/30/10 h2o(0242162)8270c
31)	Sample	30	V0831028	GCMSF2	C0H270486-002 X100 8/30/10 h2o(0242162)8270c
32)	Sample	31	V0831029	GCMSF2	C0H270486-003 8/30/10 h2o(0242162)8270c
33)	Sample	32	V0831030	GCMSF2	C0H270486-004 X100 8/30/10 h2o(0242162)8270c
34)	Sample	33	V0831031	GCMSF2	C0H270486-005 8/30/10 h2o(0242162)8270c
35)	Sample	34	V0831032	GCMSF2	C0H270486-006 8/30/10 h2o(0242162)8270c
36)	Sample	35	V0831033	GCMSF2	C0H270486-007 8/30/10 h2o(0242162)8270c
37)	Sample	100	V0831B01	GCMSF2	BLK 8270c
38)	Sample	100	V0831B02	GCMSF2	BLK 8270c
39)	Sample	36	V0831034	GCMSF2	C0H240494-BLK 8/25/10 h2o(0237208) 625
40)	Sample	37	V0831035	GCMSF2	C0H240494-LCS 8/25/10 h2o(0237208) 625
41)	Sample	38	V0831036	GCMSF2	C0H240494-LCSD 8/25/10 h2o(0237208) 625
42)	Sample	39	V0831037	GCMSF2	C0H240494-001 8/25/10 h2o(0237208) 625
43)	Sample	100	V0831B03	GCMSF2	BLK 8270c
44)	Sample	100	V0831B04	GCMSF2	BLK 8270c
45)	Sample	100	V0831B05	GCMSF2	BLK 8270c

Bytes Needed: 2308178 Space on drive D: 1023932928
Sequence Verification Done!

REQUESTED BY: GEHRINK

METHOD: 42 Base/Neutrals & Acids (8270C) Low Level Curve

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
18A	L5X1V-1-AC	___ ___ ___	865539	375241	A-4F-42	C0H200635	001		SOLID	0	1 1
18A	L5X10-1-AC	___ ___ ___	865540	375241	A-4F-42	C0H200635	002		SOLID	0	1 1
18A	L5X11-1-AC	___ ___ ___	865541	375241	A-4F-42	C0H200635	003		SOLID	0	1 1
18A	L5X12-1-AC	___ ___ ___	865542	375241	A-4F-42	C0H200635	004		SOLID	0	1 1
18A	L5X13-1-AC	___ ___ ___	865543	375241	A-4F-42	C0H200635	005		SOLID	0	1 1
18A	L5X15-1-AC	___ ___ ___	865544	375241	A-4F-42	C0H200635	006		SOLID	0	1 1
18A	L5X16-1-AC	___ ___ ___	865545	375241	A-4F-42	C0H200635	007		SOLID	0	1 1
18A	L5X17-1-AC	___ ___ ___	865546	375241	A-4F-42	C0H200635	008		SOLID	0	1 1
18A	L5X18-1-AC	___ ___ ___	865547	375241	A-4F-42	C0H200635	009		SOLID	0	1 1
18A	L5X19-1-AC	___ ___ ___	865548	375241	A-4F-42	C0H200635	010		SOLID	0	1 1
18A	L5X2A-1-AC	___ ___ ___	865549	375241	A-4F-42	C0H200635	011		SOLID	0	1 1
18A	L5X2C-1-AC	___ ___ ___	865550	375241	A-4F-42	C0H200635	012		SOLID	0	1 1
18A	L5X2D-1-AC	___ ___ ___	865551	375241	A-4F-42	C0H200635	013		SOLID	0	1 1
18A	L5X2E-1-AC	___ ___ ___	865552	375241	A-4F-42	C0H200635	014		SOLID	0	1 1
18A	L5X2F-1-AC	___ ___ ___	865553	375241	A-4F-42	C0H200635	015		SOLID	0	1 1
18A	L5X2H-1-AC	___ ___ ___	865554	375241	A-4F-42	C0H200635	016		SOLID	0	1 1
18A	L5X2J-1-AC	___ ___ ___	865555	375241	A-4F-42	C0H200635	017		SOLID	0	1 1
18A	L5X2M-1-AD	___ ___ ___	865556	375241	A-4F-42	C0H200635	018		SOLID	0	2 1
18A	L5X2P-1-AJ	___ ___ ___	865557	375241	A-4F-42	C0H200635	019		SOLID	0	2 1
18A	L5X2T-1-AP	___ ___ ___	865558	375241	A-4F-42	C0H200635	020		SOLID	0	2 1

REQUESTED BY: GKKHRINK

METHOD: 42 Base/Neutrals & Acids (8270C) Low Level Curve

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD

RELINQUISHED BY	RECEIVED BY	DATE/TIME
K. Sink	K. Sink	8-25-10 02:45
K. Sink	K. Sink	8-25-10 05:30

***** END OF REPORT *****

REQUESTED BY: **GEEHRINK**

METHOD: 42 Base/Neutrals & Acids (8270C) Low Level Curve

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
18A	L5X2W-1-AC	___ ___ ___	865559	375241	A-4F-42	C0H200635	021		SOLID	0	2 1
18A	L5X20-1-AV	___ ___ ___	865560	375241	A-4F-42	C0H200635	022		SOLID	0	2 1
18A	L5X21-1-A2	___ ___ ___	865561	375241	A-4F-42	C0H200635	023		SOLID	0	2 1
18A	L5X24-1-AC	___ ___ ___	865562	375241	A-4F-42	C0H200635	024		SOLID	0	1 1
18A	L5X26-1-AD	___ ___ ___	865563	375241	A-4F-42	C0H200635	025		SOLID	0	2 1
18A	L5X29-1-AC	___ ___ ___	865564	375241	A-4F-42	C0H200635	026		SOLID	0	2 1
18A	L5X3A-1-AD	___ ___ ___	865565	375241	A-4F-42	C0H200635	027		SOLID	0	2 1
18A	L5X3D-1-AJ	___ ___ ___	865566	375241	A-4F-42	C0H200635	028		SOLID	0	2 1
18A	L5X3F-1-AP	___ ___ ___	865567	375241	A-4F-42	C0H200635	029		SOLID	0	2 1
18A	L5X3G-1-AG	___ ___ ___	865568	375241	A-4F-42	C0H200635	030		SOLID	0	2 1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
K. Smith	K. Smith	8-25-10 02:45
K. Smith		8-25-10 05:30

***** END OF REPORT *****

PCB
MISCELLANEOUS

9/1

Batch# 0237058

Soxtherm Extraction Worksheet

TestAmerica Pittsburgh — Logbook ID: OP3610

Hexane — Baker — OP0154-10

Start Date/Time: 8.25.10 | 05:45 — Date Completed: 8.25.10 — Parameter: PCB (8082) — Method: Soxtherm — Solvent: Hexane/Acetone — Solvent Lot: OP0151-0 — Solvent Mfg: Baker — GPC Number: N/A

	Lot Number	Sample ID	Sample Weight (g)	Final Volume (mL)	Surrogate #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	GPC Date
1.	C0H200635	BLK	15.0,	10.0	GC0480-10	250uL	N/A	N/A	N/A
2.		LCS	15.0,				GC0554-10	250uL	
3.		MS-005	15.0,				↓	↓	
4.		MSD-005	15.0,				GC0554-10	250uL	
5.		001	15.2.				N/A	N/A	
6.		002	15.0,						
7.		003	15.0,						
8.		004	15.2.						
9.		005	15.0,						
10.		006	15.4,						
11.		007	15.0,						
12.		008	15.3.						
13.		009	15.2.						
14.		010	15.0,						
15.		011	15.0,						
16.		012	15.1,						
17.		013	15.0,						
18.		014	15.0,						
19.		015	15.2.						
20.		016	15.0,						
21.		017	15.0,						
22.		018	15.3,						
23.		019	15.0,						
24.		020	15.2,	10.0	GC0480-10	250uL			
Analyst:	LG	KG	KG	KG	BP	BP	BP	BP	KG

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
All Above	8-25-10	1200				8-25-10	1210			RFGH-GC
all above	8-30-10	1030				8-30-10	1030			

Start Temp: — End Temp: — (+/- 5%)

Sodium Sulfate Mfg/Lot Number: Baker/OP0159-10

Magnesium Sulfate Mfg/Lot Number: Baker/OP0158-10

N2 Blow Down Temp: 32°

Comments:

Reviewed by: — Date: 8-25-10

Cleanups — TBA: Florisil-10 — H2SO4: 50/50 — Carboprep: — Balance ID: 1120122641

printed on: 13-Jul-10 11:21:34 AM

v2 06/16/2006

(2001-2471)

2454

C0H200635

911

Batch# 0237062

Soxtherm Extraction W[illegible]sheet

Hexane

TestAmerica Pittsburgh Baker

Logbook ID: OP3610 OP0154-10

Start Date\Time	Date Completed	Parameter	Method	Solvent	Solvent Lot	Solvent Mfg	GPC Number
8-25-10 | 08:45	8-25-10	PCB (8082)	Soxtherm	Hexane | Acetone	OP0151-10	Baker	N/A

	Lot Number	Sample ID	Sample Weight (g)	Final Volume (mL)	Surrogate #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	GPC Date
1.	COH200635	BLK	15.0,	10.0	GC0480-10	250ml	N/A	N/A	N/A
2.		LCS	15.0,				GC0554-10	250ml	
3.		MS- 029	15.0,						
4.		MSD- 029	15.0,				GC0554-10	250ml	
5.		021	15.2,				N/A	N/A	
6.		022	15.0,						
7.		023	15.2						
8.		024	15.0,						
9.		025	15.0,						
10.		026	15.0,						
11.		027	15.2,						
12.		028	15.3						
13.		029	15.0,						
14.		030	15.0,	10.0	GC0480-10	250ml			
15.									
16.									
17.									
18.									
19.									
20.			KG						
21.									
22.			8-25-10						
23.									
24.									
Analyst:	KG	KG	KG	KG	BP	BP	BP	BP	KG

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
All Above	8-25-10	1200	[signature]		Org Prep	8-25-10	1210	[signature]		RF04 GC
all above	8-30-10	1030	[signature]			8-30-10	1030	[signature]		GC

Start Temp: End Temp: (+/- 5%)

Sodium Sulfate Mfg/Lot Number: Baker | OP0159-10

Magnesium Sulfate Mfg/Lot Number: Baker | OP0158-10

N2 Blow Down Temp: 320

Comments:

Reviewed by: [signature] Date: 8-25-10 Balance ID: 1120122641

Cleanups TBA: GC0680 H2SO4: 304F08 Carboprep:

printed on: 13-Jul-10 11:21:34 AM

v2 06/16/2005

(2001-2471)

2455

COH200635

Sequence Table (Front Injector):

Vial Information Part:

Y08280.PDF
AG 08-28-2010
HP6890 GC-14
MR-1

	Line	Vial	Vial Information
	1	99	RINSE
Y080	108		
	2	1	GC0445-10
	3	2	GC0446-10
1110	4	3	GC0447-10
	5	4	GC0451-10
	6	5	GC0449-10
	7	6	GC0450-10
	8	7	GC0308-10
1115	9	8	GC0309-10
	10	9	GC0310-10
	11	10	GC0311-10
	12	11	GC0312-10
	13	12	GC0313-10
1120	14	13	GC0314-10
	15	14	GC0369-10
	16	15	GC0370-10
	17	16	GC0371-10
	18	17	GC0372-10
1125	19	18	GC0373-10
	20	19	GC0374-10
1127	21	20	GC0375-10
	22	21	C0H190588-001
	23	22	C0H190588-002
1130	24	23	C0H190588-003
	25	24	C0H190588-004
	26	25	C0H190588-005
	27	26	C0H190588-006
	28	27	C0H190588-007
	29	28	C0H190588-008
1136	30	29	C0H190588-009

✓ mat 8-30-10

✓ ~~10K~~ AG
O.K. 8/28/10

Sequence: C:\HPCHEM\1\SEQUENCE\Y08280.S

1137	31	30	C0H190588-010	
	32	31	C0H190588-011	
	33	32	C0H190588-012	
1140	34	33	C0H190588-013	
	35	34	C0H190588-014	
	36	35	C0H190588-015	
	37	36	C0H190588-016	
	38	37	C0H190588-017	
1145	39	38	C0H190588-BLK	
	40	39	C0H190588-LCS	
	41	40	C0H190588-LCSD	
1148	42	41	GC0312-10	
	43	42	C0H190588-018	
	44	43	C0H190588-019	
	45	44	C0H190588-020	
	46	45	C0H260447-001	— 10X AG 8/30/10
	47	46	C0H260447-002	
	48	47	C0H260447-003	
1155	49	48	C0H260447-004	
	50	49	C0H260447-005	
	51	50	C0H260447-006	
	52	51	C0H260447-007	
	53	52	C0H260447-008	
1160	54	53	C0H260447-009	
	55	54	C0H260472-001	1000X
1162	56	55	C0H250552-001	20X
	57	56	RINSE	
	58	57	C0H260472-BLK	
	59	58	C0H260472-LCS	
	60	59	C0H260472-LCSD	
1167	61	60	GC0311-10	
	62	99	RINSE	

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	99	HEXANE	PCB1	4	Sample		
2	1	M2154,08280.B	PCB1	1	Sample		
3	2	M1232,08280.B	PCB1	1	Sample		
4	3	M1242,08280.B	PCB1	1	Sample		
5	4	M1248,08280.B	PCB1	1	Sample		
6	5	M1262,08280.B	PCB1	1	Sample		
7	6	M1268,08280.B	PCB1	1	Sample		
8	7	XL1660,08280.B	PCB1	1	Sample		
9	8	L1660,08280.B	PCB1	1	Sample		
10	9	ML1660,08280.B	PCB1	1	Sample		
11	10	M1660,08280.B	PCB1	1	Sample		
12	11	MH1660,08280.B	PCB1	1	Sample		
13	12	H1660,08280.B	PCB1	1	Sample		
14	13	XH1660,08280.B	PCB1	1	Sample		
15	14	2M2154,08280.B	PCB1	1	Sample		
16	15	2M1232,08280.B	PCB1	1	Sample		
17	16	2M1242,08280.B	PCB1	1	Sample		
18	17	2M1248,08280.B	PCB1	1	Sample		
19	18	2M1262,08280.B	PCB1	1	Sample		
20	19	2M1268,08280.B	PCB1	1	Sample		
21	20	2M1660,08280.B	PCB1	1	Sample		
22	21	L5VQ71AD,08280.B	PCB1	1	Sample		
23	22	L5VQ81AD,08280.B	PCB1	1	Sample		
24	23	L5VQ91AD,08280.B	PCB1	1	Sample		
25	24	L5VRD1AD,08280.B	PCB1	1	Sample		
26	25	L5VRE1AD,08280.B	PCB1	1	Sample		
27	26	L5VRG1AD,08280.B	PCB1	1	Sample		
28	27	L5VRH1AD,08280.B	PCB1	1	Sample		
29	28	L5VRJ1AD,08280.B	PCB1	1	Sample		
30	29	L5VRK1AD,08280.B	PCB1	1	Sample		
31	30	L5VRL1AD,08280.B	PCB1	1	Sample		
32	31	L5VRM1AD,08280.B	PCB1	1	Sample		
33	32	L5VRP1AD,08280.B	PCB1	1	Sample		
34	33	L5VRR1AE,08280.B	PCB1	1	Sample		
35	34	L5VRT1AK,08280.B	PCB1	1	Sample		
36	35	L5VRX1AQ,08280.B	PCB1	1	Sample		
37	36	L5VR01AW,08280.B	PCB1	1	Sample		
38	37	L5VR21AQ,08280.B	PCB1	1	Sample		
39	38	L51261AA,08280.B	PCB1	1	Sample		
40	39	L51261AC,08280.B	PCB1	1	Sample		
41	40	L51261AD,08280.B	PCB1	1	Sample		
42	41	MH1660,08280.B	PCB1	1	Sample		
43	42	L5VR31AW,08280.B	PCB1	1	Sample		
44	43	L5VR41AW,08280.B	PCB1	1	Sample		
45	44	L5VR61A2,08280.B	PCB1	1	Sample		
46	45	L55121AA,08280.B	PCB1	1	Sample		
47	46	L55161AA,08280.B	PCB1	1	Sample		
48	47	L55171AA,08280.B	PCB1	1	Sample		
49	48	L55191AA,08280.B	PCB1	1	Sample		
50	49	L552C1AA,08280.B	PCB1	1	Sample		
51	50	L552D1AA,08280.B	PCB1	1	Sample		
52	51	L552G1AA,08280.B	PCB1	1	Sample		
53	52	L552H1AA,08280.B	PCB1	1	Sample		
54	53	L552L1AA,08280.B	PCB1	1	Sample		
55	54	L558T1AA,08280.B	PCB1	1	Sample		
56	55	L548X1AA,08280.B	PCB1	1	Sample		
57	56	HEXANE	PCB1	1	Sample		
58	57	L56RD1AA,08280.B	PCB1	1	Sample		
59	58	L56RD1AC,08280.B	PCB1	1	Sample		
60	59	L56RD1AD,08280.B	PCB1	1	Sample		
61	60	M1660,08280.B	PCB1	1	Sample		
62	99	HEXANE	PCB1	21	Sample		

Sequence Table (Front Injector):

Vial Information Part:

Y08280.PDF
AC 08-31-2010
HP6890 GC-14
MR-1

Line	Vial	Vial Information	
1	1	RINSE	
Y08013 00 2	2	GC0445-10	
3	3	GC0446-10	
4	4	GC0447-10	
5	5	GC0451-10	
6	6	GC0449-10	
1305 7	7	GC0450-10	
1306 8	8	GC0311-10	
9	9	C0H200635-001	
10	10	C0H200635-002	
11	11	C0H200635-003	
1310 12	12	C0H200635-004	
13	13	C0H200635-005	
14	14	C0H200635-005	MS
15	15	C0H200635-005	MSD
16	16	C0H200635-006	
1315 17	17	C0H200635-007	
18	18	C0H200635-008	
19	19	C0H200635-009	
20	20	C0H200635-010	
21	21	C0H200635-011	
1320 22	22	C0H200635-012	
23	23	C0H200635-013	
1322 24	24	~~C0H200635-014~~	
25	25	C0H200635-015	
26	26	RINSE	
27	27	C0H200635-BLK	
28	28	C0H200635-LCS	
1327 29	29	GC0312-10	
30	30	C0H200635-016	

Sequence: C:\HPCHEM\1\SEQUENCE\Y08310.S

1329 31	31	C0H200635-017	
	32	32	C0H200635-018
	33	33	C0H200635-019
	34	34	C0H200635-020
	35	35	C0H200635-021
	36	36	C0H200635-022
1335 37	37	C0H200635-023	
	38	38	C0H200635-024
	39	39	C0H200635-025
	40	40	C0H200635-026
	41	41	C0H200635-027
1340 42	42	C0H200635-028	
	43	43	C0H200635-029
	44	44	C0H200635-029 MS
	45	45	C0H200635-029 MSD
1344 46	46	C0H200635-030	
	47	47	RINSE
	48	48	C0H200635-BLK
	49	49	C0H200635-LCS
1348 50	50	GC0311-10	
	51	51	C0H190588-019
	52	52	C0H200635-014
	53	53	C0H200635-017
	54	54	RINSE
1353 55	55	GC0312-10	
	56	1	RINSE

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	PCB1	2	Sample		
2	2	M2154,08280.B	PCB1	1	Sample		
3	3	M1232,08280.B	PCB1	1	Sample		
4	4	M1242,08280.B	PCB1	1	Sample		
5	5	M1248,08280.B	PCB1	1	Sample		
6	6	M1262,08280.B	PCB1	1	Sample		
7	7	M1268,08280.B	PCB1	1	Sample		
8	8	M1660,08280.B	PCB1	1	Sample		
9	9	L5X1V1AD,08280.B	PCB1	1	Sample		
10	10	L5X101AD,08290.B	PCB1	1	Sample		
11	11	L5X111AD,08290.B	PCB1	1	Sample		

Sequence: C:\HPCHEM\1\SEQUENCE\Y08310.S

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
12	12	L5X121AD,08290.B	PCB1	1	Sample		
13	13	L5X131AD,08290.B	PCB1	1	Sample		
14	14	L5X131AU,08290.B	PCB1	1	Sample		
15	15	L5X131AV,08290.B	PCB1	1	Sample		
16	16	L5X151AD,08290.B	PCB1	1	Sample		
17	17	L5X161AD,08290.B	PCB1	1	Sample		
18	18	L5X171AD,08290.B	PCB1	1	Sample		
19	19	L5X181AD,08290.B	PCB1	1	Sample		
20	20	L5X191AD,08290.B	PCB1	1	Sample		
21	21	L5X2A1AD,08290.B	PCB1	1	Sample		
22	22	L5X2C1AD,08290.B	PCB1	1	Sample		
23	23	L5X2D1AD,08290.B	PCB1	1	Sample		
24	24	L5X2E1AD,08290.B	PCB1	1	Sample		
25	25	L5X2F1AD,08290.B	PCB1	1	Sample		
26	26	HEXANE	PCB1	1	Sample		
27	27	L532V1AA,08290.B	PCB1	1	Sample		
28	28	L532V1AC,08290.B	PCB1	1	Sample		
29	29	MH1660,08290.B	PCB1	1	Sample		
30	30	L5X2H1AD,08290.B	PCB1	1	Sample		
31	31	L5X2J1AD,08290.B	PCB1	1	Sample		
32	32	L5X2M1AD,08290.B	PCB1	1	Sample		
33	33	L5X2P1AD,08290.B	PCB1	1	Sample		
34	34	L5X2T1AD,08290.B	PCB1	1	Sample		
35	35	L5X2W1AD,08290.B	PCB1	1	Sample		
36	36	L5X201AD,08290.B	PCB1	1	Sample		
37	37	L5X211A3,08290.B	PCB1	1	Sample		
38	38	L5X241AD,08290.B	PCB1	1	Sample		
39	39	L5X261AD,08290.B	PCB1	1	Sample		
40	40	L5X291AD,08290.B	PCB1	1	Sample		
41	41	L5X3A1AE,08290.B	PCB1	1	Sample		
42	42	L5X3D1AK,08290.B	PCB1	1	Sample		
43	43	L5X3F1AQ,08290.B	PCB1	1	Sample		
44	44	L5X3F1A5,08290.B	PCB1	1	Sample		
45	45	L5X3F1A6,08290.B	PCB1	1	Sample		
46	46	L5X3G1AH,08290.B	PCB1	1	Sample		
47	47	HEXANE	PCB1	1	Sample		
48	48	L532W1AA,08290.B	PCB1	1	Sample		
49	49	L532W1AC,08290.B	PCB1	1	Sample		
50	50	M1660,08290.B	PCB1	1	Sample		
51	51	L5VR41AW,08290.B	PCB1	1	Sample		
52	52	L5X2E1AD,08290.B	PCB1	1	Sample		
53	53	L5X2J1AD,08290.B	PCB1	1	Sample		
54	54	HEXANE	PCB1	1	Sample		
55	55	MH1660,08290.B	PCB1	1	Sample		
56	1	HEXANE	PCB1	11	Sample		

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

No entries - empty table!

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
1	100	RINSE
2	1	GC0445-10
3	2	GC0446-10
4	3	GC0447-10
5	4	GC0451-10
6	5	GC0449-10
7	6	GC0450-10
8	7	GC0308-10
9	8	GC0309-10
10	9	GC0310-10
11	10	GC0311-10
12	11	GC0312-10
13	12	GC0313-10
14	13	GC0314-10
15	14	GC0369-10
16	15	GC0370-10
17	16	GC0371-10
18	17	GC0372-10
19	18	GC0373-10
20	19	GC0374-10
21	20	GC0375-10
22	21	C0H190588-001
23	22	C0H190588-002
24	23	C0H190588-003
25	24	C0H190588-004
26	25	C0H190588-005
27	26	C0H190588-006

Z08280.PDF
AG 08-28-2010
HP6890 GC-14
MR-2

✓ MR 9-30-10

Sequence: C:\HPCHEM\1\SEQUENCE\Y08280.S

	Line	Vial	Vial Information
1134	28	27	C0H190588-007
	29	28	C0H190588-008
	30	29	C0H190588-009
	31	30	C0H190588-010
	32	31	C0H190588-011
	33	32	C0H190588-012
1140	34	33	C0H190588-013
	35	34	C0H190588-014
	36	35	C0H190588-015
	37	36	C0H190588-016
	38	37	C0H190588-017
1145	39	38	C0H190588-BLK
	40	39	C0H190588-LCS
	41	40	C0H190588-LCSD
1148	42	41	GC0312-10
	43	42	C0H190588-018
1150	44	43	C0H190588-019
	45	44	C0H190588-020
	46	61	C0H050628-001 5X
	47	62	C0H050628-001 5X MS
	48	63	C0H050628-001 5X MSD
1155	49	64	C0H050628-002 5X
	50	65	C0H050628-002 5X MS
	51	66	C0H050628-002 5X MSD
	52	67	C0H050628-003 5X
	53	68	C0H050628-004 5X
1160	54	69	C0H050628-005 5X
	55	70	C0H050628-006 5X
	56	71	C0H050628-007 5X
	57	72	RINSE
	58	73	C0H050628-BLK
	59	74	C0H050628-LCS
1166	60	75	GC0311-10

1167	61	76	C0H050628-008 5X
	62	77	C0H050628-009 5X
	63	78	C0H050628-010 5X
1170	64	79	C0H050628-011 5X
	65	80	C0H050628-012 5X
	66	81	C0H050628-013 5X
	67	82	C0H050628-014 5X
	68	83	C0H050628-015 5X
1175	69	84	C0H050628-016 5X
	70	85	C0H050628-017 5X
	71	86	C0H050628-018 5X
	72	87	C0H050628-020 5X
1179	73	88	C0H050628-021 5X
	74	89	RINSE
	75	90	C0H050628-BLK
	76	91	C0H050628-LCS
1183	77	92	GC0312-10
	78	100	RINSE

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	100	HEXANE	PCB1	3	Sample		
2	1	M2154,08280.B	PCB1	1	Sample		
3	2	M1232,08280.B	PCB1	1	Sample		
4	3	M1242,08280.B	PCB1	1	Sample		
5	4	M1248,08280.B	PCB1	1	Sample		
6	5	M1262,08280.B	PCB1	1	Sample		
7	6	M1268,08280.B	PCB1	1	Sample		
8	7	XL1660,08280.B	PCB1	1	Sample		
9	8	L1660,08280.B	PCB1	1	Sample		
10	9	ML1660,08280.B	PCB1	1	Sample		
11	10	M1660,08280.B	PCB1	1	Sample		
12	11	MH1660,08280.B	PCB1	1	Sample		
13	12	H1660,08280.B	PCB1	1	Sample		
14	13	XH1660,08280.B	PCB1	1	Sample		
15	14	2M2154,08280.B	PCB1	1	Sample		
16	15	2M1232,08280.B	PCB1	1	Sample		
17	16	2M1242,08280.B	PCB1	1	Sample		
18	17	2M1248,08280.B	PCB1	1	Sample		
19	18	2M1262,08280.B	PCB1	1	Sample		
20	19	2M1268,08280.B	PCB1	1	Sample		
21	20	2M1660,08280.B	PCB1	1	Sample		
22	21	L5VQ71AD,08280.B	PCB1	1	Sample		
23	22	L5VQ81AD,08280.B	PCB1	1	Sample		
24	23	L5VQ91AD,08280.B	PCB1	1	Sample		
25	24	L5VRD1AD,08280.B	PCB1	1	Sample		
26	25	L5VRE1AD,08280.B	PCB1	1	Sample		
27	26	L5VRG1AD,08280.B	PCB1	1	Sample		

Sequence: C:\HPCHEM\1\SEQUENCE\Y08280.S

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
28	27	L5VRH1AD,08280.B	PCB1	1	Sample		
29	28	L5VRJ1AD,08280.B	PCB1	1	Sample		
30	29	L5VRK1AD,08280.B	PCB1	1	Sample		
31	30	L5VRL1AD,08280.B	PCB1	1	Sample		
32	31	L5VRM1AD,08280.B	PCB1	1	Sample		
33	32	L5VRP1AD,08280.B	PCB1	1	Sample		
34	33	L5VRR1AE,08280.B	PCB1	1	Sample		
35	34	L5VRT1AK,08280.B	PCB1	1	Sample		
36	35	L5VRX1AQ,08280.B	PCB1	1	Sample		
37	36	L5VR01AW,08280.B	PCB1	1	Sample		
38	37	L5VR21AQ,08280.B	PCB1	1	Sample		
39	38	L51261AA,08280.B	PCB1	1	Sample		
40	39	L51261AC,08280.B	PCB1	1	Sample		
41	40	L51261AD,08280.B	PCB1	1	Sample		
42	41	MH1660,08280.B	PCB1	1	Sample		
43	42	L5VR31AW,08280.B	PCB1	1	Sample		
44	43	L5VR41AW,08280.B	PCB1	1	Sample		
45	44	L5VR61A2,08280.B	PCB1	1	Sample		
46	61	L463T1AF,08280.B	PCB1	1	Sample		
47	62	L463T1AN,08280.B	PCB1	1	Sample		
48	63	L463T1AP,08280.B	PCB1	1	Sample		
49	64	L463V1AF,08280.B	PCB1	1	Sample		
50	65	L463V1AN,08280.B	PCB1	1	Sample		
51	66	L463V1AP,08280.B	PCB1	1	Sample		
52	67	L463W1AF,08280.B	PCB1	1	Sample		
53	68	L463X1AF,08280.B	PCB1	1	Sample		
54	69	L46301AF,08280.B	PCB1	1	Sample		
55	70	L46311AF,08280.B	PCB1	1	Sample		
56	71	L46321AF,08280.B	PCB1	1	Sample		
57	72	HEXANE	PCB1	1	Sample		
58	73	L5V3P1AA,08280.B	PCB1	1	Sample		
59	74	L5V3P1AC,08280.B	PCB1	1	Sample		
60	75	M1660,08280.B	PCB1	1	Sample		
61	76	L46331AF,08280.B	PCB1	1	Sample		
62	77	L46341AF,08280.B	PCB1	1	Sample		
63	78	L46351AF,08280.B	PCB1	1	Sample		
64	79	L46361AF,08280.B	PCB1	1	Sample		
65	80	L46371AF,08280.B	PCB1	1	Sample		
66	81	L46381AF,08280.B	PCB1	1	Sample		
67	82	L46391AF,08280.B	PCB1	1	Sample		
68	83	L464A1AF,08280.B	PCB1	1	Sample		
69	84	L464C1AF,08280.B	PCB1	1	Sample		
70	85	L464D1AF,08280.B	PCB1	1	Sample		
71	86	L464E1AF,08280.B	PCB1	1	Sample		
72	87	L464G1AF,08280.B	PCB1	1	Sample		
73	88	L464H1AF,08280.B	PCB1	1	Sample		
74	89	HEXANE	PCB1	1	Sample		
75	90	L5V3P1AA,08280.B	PCB1	1	Sample		
76	91	L5V3P1AC,08280.B	PCB1	1	Sample		
77	92	MH1660,08280.B	PCB1	1	Sample		
78	100	HEXANE	PCB1	8	Sample		

Sequence: C:\HPCHEM\1\SEQUENCE\Y08310.S

Sequence Table (Front Injector):

No entries - empty table!

Sequence Table (Back Injector):

Vial Information Part:

Z08280.PDF

AC 08-28-2010

HP6890 CC-14

MR-2

Line	Vial	Vial Information	
1	~~none~~ 1	RINSE	
2	2	GC0445-10	
3	3	GC0446-10	
4	4	GC0447-10	
5	5	GC0451-10	
6	6	GC0449-10	
7	7	GC0450-10	
8	99	GC0311-10	
9	9	C0H200635-001	
10	10	C0H200635-002	
11	11	C0H200635-003	
12	12	C0H200635-004	
13	13	C0H200635-005	
14	14	C0H200635-005	MS
15	15	C0H200635-005	MSD
16	16	C0H200635-006	
17	17	C0H200635-007	
18	18	C0H200635-008	
19	19	C0H200635-009	
20	20	C0H200635-010	
21	21	C0H200635-011	
22	22	C0H200635-012	
23	23	C0H200635-013	
24	24	~~C0H200635-014~~	
25	25	C0H200635-015	
26	26	RINSE	
27	27	C0H200635-BLK	

Sequence: C:\HPCHEM\1\SEQUENCE\Y08310.S

Line	Vial	Vial Information	
1326 28	28	C0H200635-LCS	
29	98	GC0312-10	
30	30	C0H200635-016	
31	31	~~C0H200635-017~~	
1330 32	32	C0H200635-018	
33	33	C0H200635-019	
34	34	C0H200635-020	
35	35	C0H200635-021	
36	36	C0H200635-022	
1335 37	37	C0H200635-023	
38	38	C0H200635-024	
39	39	C0H200635-025	
40	40	C0H200635-026	
41	41	C0H200635-027	
1340 42	42	C0H200635-028	
43	43	C0H200635-029	
44	44	C0H200635-029	MS
45	45	C0H200635-029	MSD
1344 46	46	C0H200635-030	
47	47	RINSE	
48	48	C0H200635-BLK	
49	49	C0H200635-LCS	
1348 50	97	GC0311-10	
51	51	C0H190588-019	
52	52	C0H200635-014	
53	53	C0H200635-017	
54	54	RINSE	
1353 55	55	GC0312-10	
56	100	RINSE	

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	none	HEXANE	PCB1	3	Sample		
2	2	M2154,08280.B	PCB1	1	Sample		

Sequence: C:\HPCHEM\1\SEQUENCE\Y08310.S

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
3	3	M1232,08280.B	PCB1	1	Sample		
4	4	M1242,08280.B	PCB1	1	Sample		
5	5	M1248,08280.B	PCB1	1	Sample		
6	6	M1262,08280.B	PCB1	1	Sample		
7	7	M1268,08280.B	PCB1	1	Sample		
8	99	M1660,08280.B	PCB1	1	Sample		
9	9	L5X1V1AD,08290.B	PCB1	1	Sample		
10	10	L5X101AD,08290.B	PCB1	1	Sample		
11	11	L5X111AD,08290.B	PCB1	1	Sample		
12	12	L5X121AD,08290.B	PCB1	1	Sample		
13	13	L5X131AD,08290.B	PCB1	1	Sample		
14	14	L5X131AU,08290.B	PCB1	1	Sample		
15	15	L5X131AV,08290.B	PCB1	1	Sample		
16	16	L5X151AD,08290.B	PCB1	1	Sample		
17	17	L5X161AD,08290.B	PCB1	1	Sample		
18	18	L5X171AD,08290.B	PCB1	1	Sample		
19	19	L5X181AD,08290.B	PCB1	1	Sample		
20	20	L5X191AD,08290.B	PCB1	1	Sample		
21	21	L5X2A1AD,08290.B	PCB1	1	Sample		
22	22	L5X2C1AD,08290.B	PCB1	1	Sample		
23	23	L5X2D1AD,08290.B	PCB1	1	Sample		
24	24	L5X2E1AD,08290.B	PCB1	1	Sample		
25	25	L5X2F1AD,08290.B	PCB1	1	Sample		
26	26	HEXANE	PCB1	1	Sample		
27	27	L532V1AA,08290.B	PCB1	1	Sample		
28	28	L532V1AC,08290.B	PCB1	1	Sample		
29	98	MH1660,08290.B	PCB1	1	Sample		
30	30	L5X2H1AD,08290.B	PCB1	1	Sample		
31	31	L5X2J1AD,08290.B	PCB1	1	Sample		
32	32	L5X2M1AD,08290.B	PCB1	1	Sample		
33	33	L5X2P1AD,08290.B	PCB1	1	Sample		
34	34	L5X2T1AD,08290.B	PCB1	1	Sample		
35	35	L5X2W1AD,08290.B	PCB1	1	Sample		
36	36	L5X201AD,08290.B	PCB1	1	Sample		
37	37	L5X211A3,08290.B	PCB1	1	Sample		
38	38	L5X241AD,08290.B	PCB1	1	Sample		
39	39	L5X261AD,08290.B	PCB1	1	Sample		
40	40	L5X291AD,08290.B	PCB1	1	Sample		
41	41	L5X3A1AE,08290.B	PCB1	1	Sample		
42	42	L5X3D1AK,08290.B	PCB1	1	Sample		
43	43	L5X3F1AQ,08290.B	PCB1	1	Sample		
44	44	L5X3F1A5,08290.B	PCB1	1	Sample		
45	45	L5X3F1A6,08290.B	PCB1	1	Sample		
46	46	L5X3G1AH,08290.B	PCB1	1	Sample		
47	47	HEXANE	PCB1	1	Sample		
48	48	L532W1AA,08290.B	PCB1	1	Sample		
49	49	L532W1AC,08290.B	PCB1	1	Sample		
50	97	M1660,08290.B	PCB1	1	Sample		
51	51	L5VR41AW,08290.B	PCB1	1	Sample		
52	52	L5X2E1AD,08290.B	PCB1	1	Sample		
53	53	L5X2J1AD,08290.B	PCB1	1	Sample		
54	54	HEXANE	PCB1	1	Sample		
55	55	MH1660,08290.B	PCB1	1	Sample		
56	100	HEXANE	PCB1	11	Sample		

REQUESTED BY: **GEEHRINK**

METHOD: QH PCBs (8082)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD	
18A	L5X1V-1-AD	___ ___ ___	865569	375241	A-4F-QH	C0H200635	001		SOLID	0	1	1
18A	L5X10-1-AD	___ ___ ___	865570	375241	A-4F-QH	C0H200635	002		SOLID	0	1	1
18A	L5X11-1-AD	___ ___ ___	865571	375241	A-4F-QH	C0H200635	003		SOLID	0	1	1
18A	L5X12-1-AD	___ ___ ___	865572	375241	A-4F-QH	C0H200635	004		SOLID	0	1	1
18A	L5X13-1-AD	___ ___ ___	865573	375241	A-4F-QH	C0H200635	005		SOLID	0	1	1
18A	L5X15-1-AD	___ ___ ___	865574	375241	A-4F-QH	C0H200635	006		SOLID	0	1	1
18A	L5X16-1-AD	___ ___ ___	865575	375241	A-4F-QH	C0H200635	007		SOLID	0	1	1
18A	L5X17-1-AD	___ ___ ___	865576	375241	A-4F-QH	C0H200635	008		SOLID	0	1	1
18A	L5X18-1-AD	___ ___ ___	865577	375241	A-4F-QH	C0H200635	009		SOLID	0	1	1
18A	L5X19-1-AD	___ ___ ___	865578	375241	A-4F-QH	C0H200635	010		SOLID	0	1	1
18A	L5X2A-1-AD	___ ___ ___	865579	375241	A-4F-QH	C0H200635	011		SOLID	0	1	1
18A	L5X2C-1-AD	___ ___ ___	865580	375241	A-4F-QH	C0H200635	012		SOLID	0	1	1
18A	L5X2D-1-AD	___ ___ ___	865581	375241	A-4F-QH	C0H200635	013		SOLID	0	1	1
18A	L5X2E-1-AD	___ ___ ___	865582	375241	A-4F-QH	C0H200635	014		SOLID	0	1	1
18A	L5X2F-1-AD	___ ___ ___	865583	375241	A-4F-QH	C0H200635	015		SOLID	0	1	1
18A	L5X2H-1-AD	___ ___ ___	865584	375241	A-4F-QH	C0H200635	016		SOLID	0	1	1
18A	L5X2J-1-AD	___ ___ ___	865585	375241	A-4F-QH	C0H200635	017		SOLID	0	1	1
18A	L5X2M-1-AE	___ ___ ___	865586	375241	A-4F-QH	C0H200635	018		SOLID	0	2	1
18A	L5X2P-1-AK	___ ___ ___	865587	375241	A-4F-QH	C0H200635	019		SOLID	0	2	1
18A	L5X2T-1-AQ	___ ___ ___	865588	375241	A-4F-QH	C0H200635	020		SOLID	0	2	1

REQUESTED BY: GEEHRINK

METHOD: QH PCBs (8082)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD

RELINQUISHED BY	RECEIVED BY	DATE/TIME
K. Seuk	K. Seuk	8-25-10 02:45
K. Seuk	K. Seuk	8-25-10 05:30

***** END OF REPORT *****

REQUESTED BY: GKEHRINK

METHOD: QH PCBs (8082)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
18A	L5X2W-1-AD		865589	375241	A-4F-QH	C0H200635	021		SOLID	0	2 1
18A	L5X20-1-AW		865590	375241	A-4F-QH	C0H200635	022		SOLID	0	2 1
18A	L5X21-1-A3		865591	375241	A-4F-QH	C0H200635	023		SOLID	0	2 1
18A	L5X24-1-AD		865592	375241	A-4F-QH	C0H200635	024		SOLID	0	1 1
18A	L5X26-1-AE		865593	375241	A-4F-QH	C0H200635	025		SOLID	0	2 1
18A	L5X29-1-AD		865594	375241	A-4F-QH	C0H200635	026		SOLID	0	2 1
18A	L5X3A-1-AE		865595	375241	A-4F-QH	C0H200635	027		SOLID	0	2 1
18A	L5X3D-1-AK		865596	375241	A-4F-QH	C0H200635	028		SOLID	0	2 1
18A	L5X3F-1-AQ		865597	375241	A-4F-QH	C0H200635	029		SOLID	0	2 1
18A	L5X3G-1-AH		865598	375241	A-4F-QH	C0H200635	030		SOLID	0	2 1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
K. Smith	K. Smith	8-25-10 02:45
K. Smith	K. Smith	8-25-10 05:30

***** END OF REPORT *****

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **October 14, 2010**

FROM: **MEGAN CARSON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-SELECT METALS, TOC, AND AVS/SEM**
LOCKHEED MIDDLE RIVER CENTER
SDG C0H200635

SAMPLES: 30/Sediment/

SD-100-01	SD-100-02	SD-100-04
SD-100-SS	SD-106-01	SD-106-02
SD-106-04	SD-106-SS	SD-88-01
SD-88-02	SD-88-04	SD-88-SS
SD-89-01	SD-89-02	SD-89-04
SD-89-SS	SD-96-01	SD-96-02
SD-96-04	SD-96-SS	SD-98-01
SD-98-02	SD-98-04	SD-98-SS
SD-99-01	SD-99-02	SD-99-04
SD-99-SS	SD-DUP4-02	SD-DUP5-01

Overview

The sample set for Middle River Complex, SDG C0H200635, consists of thirty (30) sediment environmental samples. This SDG contained two field duplicate pairs: SD-DUP4-02/SD-100-02 and SD-DUP5-01/SD-96-01.

All samples were analyzed for select metals including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Samples SD-88-01, SD-88-02, SD-88-04, SD-88-SS, SD-89-01, SD-89-02, SD-89-04, SD-89-SS, SD-99-01, SD-99-02, SD-99-04, and SD-99-SS were analyzed for acid volatile sulfides (AVS) and simultaneously extracted metals (SEM) cadmium, chromium, copper, lead, nickel, silver, and zinc. Samples SD-88-01, SD-88-02, SD-88-SS, SD-89-01 SD-89-02, SD-89-SS, SD-99-01, SD-99-02, and SD-99-SS were analyzed for total organic carbons (TOC). The samples were collected by Tetra Tech NUS on August 18th and 19th, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7471A. AVS/SEM analyses were conducted using method EPA AVS/SEM. TOC analyses were conducted using method EPA Llyod Kahn.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, ICPMS tune recoveries, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP internal standard recoveries, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following contaminants were detected in blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Zinc [1]	0.0068 umole/g	0.034 umole/L
Chromium [2]	0.016 mg/kg	0.08 mg/kg
Chromium [3]	0.026 mg/kg	0.13 mg/kg
Antimony [4]	0.00027 mg/L	0.067 mg/kg
Thallium [4]	0.00008 mg/L	0.02 mg/kg
Cadmium [5]	0.2 ug/L	0.000044 umole/L
Zinc [5]	16.1 ug/L	0.0012 umole/L

[1] Maximum concentration present in a preparation blank affecting samples in preparation batch 0244083.
[2] Maximum concentration present in a preparation blank affecting samples in preparation batch 0244130.
[3] Maximum concentration present in a preparation blank affecting samples in preparation batch 0244174.
[4] Maximum concentration present in a continuing calibration blank affecting all samples analyzed for select metals.
[5] Maximum concentration present in a continuing calibration blank affecting all samples analyzed for SEM metals.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for were qualified "B" as a result of laboratory blank contamination.

- The CRDL standard analyzed on 9/2/10 had a percent recovery >110% for arsenic, thallium, and zinc. All samples analyzed on 9/2/10 were affected. Positive results <2X CRDL for thallium were qualified as estimated (K) and estimated (J) due to conflicting directional bias.

- The serial dilution for sample SD-106-SS had a percent difference > 10% for antimony and cadmium. Samples in preparation batch 0244130 were affected. Positive results were qualified as estimated (J).

- The matrix spike and matrix spike duplicate for sample SD-106-SS had a percent recovery <75% for antimony, arsenic, beryllium, cadmium, chromium, copper, nickel, selenium, silver, and zinc. Samples in preparation batch 0244130 were affected. Positive results for antimony arsenic, beryllium, cadmium, chromium, copper, nickel, selenium, silver, and zinc were qualified as biased low (L) and estimated (J) due to conflicting directional bias.

- The matrix spike and matrix spike duplicate for sample SD-88-04 had a percent recovery <75% for antimony and copper and a percent recovery <30% for cadmium, nickel, and selenium. Samples in preparation batch 0244174 were affected. Positive results for antimony, copper, cadmium, nickel, and selenium were qualified as biased low (L) and estimated (J) due to conflicting directional bias.

- The following samples had percent solid recoveries <30%: SD-96-SS and SD-89-SS. Positive results were qualified as estimated (J).

- The field duplicate pair SD-DUP4-02/SD-100-02 had a relative percent difference >50% for copper. Only the field duplicate pair were qualified as the other field duplicate pair was within quality control limits. Positive results were qualified as estimated (J).

Notes

Positive results greater than the method detection limit but less than the reporting limit were qualified as estimated (J).

Sample SD-88-04 was analyzed at a 5X dilution for zinc.

The SEM CRDL standard analyzed on 9/2/10 had a percent recovery <90% for lead and >110% for zinc. All samples analyzed on 9/2/10 were affected. All sample results were greater than 2X CRDL therefore no sample results were qualified.

Executive Summary

Laboratory Performance: Preparation and calibration blanks resulted in the qualification on several samples. CRDL standard non-compliances resulted in the qualification of data.

Other Factors Affecting Data Quality: Serial dilution non-compliances for antimony and cadmium resulted in the qualification of sample results. Several matrix spike non-compliances resulted in the qualification of sample results. Samples SD-96-SS and SD-89-SS had a percent solid recovery < 30% and all sample results were qualified. Field duplicate noncompliance for copper resulted in the qualification of sample results.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993. The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Edward Sedlmyer for

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	SD-100-01			SD-100-02			SD-100-04			SD-100-SS		
SDG: C0H200635	LAB_ID	C0H200635006			C0H200635007			C0H200635008			C0H200635005		
FRACTION: M	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	40.0			47.0			63.0			66.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.14	B	A	0.066	B	A	0.027	B	A	0.15	J	DI
ARSENIC		4.1	L	D	3.8	L	D	2.2	L	D	2.1	L	D
BERYLLIUM		1.3	L	D	1	L	D	0.51	L	D	0.38	L	D
CADMIUM		0.28	J	DI	0.2	J	DI	0.11	J	DI	3.6	J	DI
CHROMIUM		25.1	L	D	19.4	L	D	10.2	L	D	42.7	L	D
COPPER		18.4	L	D	12.3	J	DG	5.8	L	D	17.5	L	D
LEAD		14.6			9			4.4			32.2		
MERCURY		0.074			0.031	J	P	0.0087	U		0.15		
NICKEL		19.3	L	D	14.1	L	D	7.4	L	D	8.7	L	D
SELENIUM		0.96	L	D	0.71	L	D	0.42	L	D	0.48	L	D
SILVER		0.062	J	DP	0.043	J	DP	0.021	J	DP	0.46	L	D
THALLIUM		0.19	K	C	0.12	K	C	0.065	K	C	0.08	K	C
ZINC		62.1	L	D	47.4	L	D	26.4	L	D	80.9	L	D

PROJ_NO: 02903 SDG: C0H200635 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-106-01			SD-106-02			SD-106-04			SD-106-SS		
	LAB_ID	C0H200635002			C0H200635003			C0H200635004			C0H200635001		
	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010			8/18/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	37.0			35.0			36.0			34.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.087	B	A	0.07	B	A	0.075	B	A	0.28	J	DP
ARSENIC		5	L	D	4.9	L	D	6.1	L	D	9.3	L	D
BERYLLIUM		1.4	L	D	1.4	L	D	1.6	L	D	1.9	L	D
CADMIUM		0.26	J	DI	0.29	J	DI	0.33	J	DI	0.83	J	DI
CHROMIUM		26.6	L	D	27.9	L	D	31.7	L	D	44.6	L	D
COPPER		16.5	L	D	16	L	D	15.8	L	D	41.1	L	D
LEAD		12.7			12.5			15			52.8		
MERCURY		0.052			0.041	J	P	0.034	J	P	0.17		
NICKEL		19.6	L	D	20.5	L	D	24.8	L	D	31.1	L	D
SELENIUM		0.98	L	D	1	L	D	1.1	L	D	1.7	L	D
SILVER		0.059	J	DP	0.055	J	DP	0.062	J	DP	0.22	L	D
THALLIUM		0.18	K	C	0.18	K	C	0.2	K	C	0.29	K	C
ZINC		65.8	L	D	70.2	L	D	88	L	D	122	L	D

PROJ_NO: 02903 SDG: C0H200635 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-88-01			SD-88-02			SD-88-04			SD-88-04-DL		
	LAB_ID	C0H200635019			C0H200635020			C0H200635021			C0H200635021		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	31.0			36.0			51.0			51.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.69	J	DI	2.2	J	DI	0.45	L	D			
ARSENIC		8.5	L	D	8.3	L	D	35.9					
BERYLLIUM		1.8	L	D	2.1	L	D	2.5					
CADMIUM		15.7	J	DI	35.5	J	DI	4.9	L	D			
CHROMIUM		277	L	D	727	L	D	49.5					
COPPER		95.2	L	D	72.2	L	D	31.7	L	D			
LEAD		189			158			31					
MERCURY		1			2			0.057					
NICKEL		42.1	L	D	38.8	L	D	103	L	D			
SELENIUM		1.8	L	D	2	L	D	2	L	D			
SILVER		6.8	L	D	13.6	L	D	0.56					
THALLIUM		0.27	K	C	0.29			20.3					
ZINC		392	L	D	572	L	D				4370		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-88-SS			SD-89-01			SD-89-02			SD-89-04		
	LAB_ID	C0H200635018			C0H200635023			C0H200635025			C0H200635026		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	31.0			31.0			33.0			48.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.75	J	DI	0.95	L	D	1.3	L	D	0.3	L	D
ARSENIC		7.8	L	D	8.6			10.2			5.3		
BERYLLIUM		1.8	L	D	2.2			2.3			1.9		
CADMIUM		19.3	J	DI	17.8	L	D	30.2	L	D	4.2	L	D
CHROMIUM		336	L	D	336			569			102		
COPPER		94.2	L	D	107	L	D	121	L	D	30.5	L	D
LEAD		170			187			226			33.9		
MERCURY		1.1			0.96			2.5			0.12		
NICKEL		40.3	L	D	46.5	L	D	54.6	L	D	24.6	L	D
SELENIUM		1.9	L	D	2	L	D	2.4	L	D	1.2	L	D
SILVER		7.2	L	D	7.1			23			1.9		
THALLIUM		0.29	K	C	0.35			0.36			0.16	K	C
ZINC		404	L	D	441			492			102		

PROJ_NO: 02903	NSAMPLE	SD-89-SS			SD-96-01			SD-96-02			SD-96-04		
SDG: C0H200635	LAB_ID	C0H200635022			C0H200635015			C0H200635016			C0H200635017		
FRACTION: M	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	29.0			31.0			36.0			64.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.9	J	DY	0.61	J	DI	0.83	J	DI	0.53	J	DI
ARSENIC		9.8	J	Y	7.5	L	D	8.2	L	D	8.2	L	D
BERYLLIUM		2.1	J	Y	1.8	L	D	1.8	L	D	2	L	D
CADMIUM		11.9	J	DY	14.9	J	DI	25.9	J	DI	4.1	J	DI
CHROMIUM		251	J	Y	276	L	D	441	L	D	98.9	L	D
COPPER		118	J	DY	121	L	D	88.1	L	D	52.3	L	D
LEAD		147	J	Y	148			163			24		
MERCURY		0.76	J	Y	0.9			1.8			0.098		
NICKEL		42.9	J	DY	39.4	L	D	41.1	L	D	24	L	D
SELENIUM		2	J	DY	1.8	L	D	1.9	L	D	0.94	L	D
SILVER		5.6	J	Y	6.3	L	D	14.4	L	D	2.3	L	D
THALLIUM		0.32	J	CY	0.28	K	C	0.27	K	C	0.11	K	C
ZINC		415	J	Y	377	L	D	387	L	D	89.1	L	D

PROJ_NO: 02903 SDG: C0H200635 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-96-SS			SD-98-01			SD-98-02			SD-98-04		
	LAB_ID	C0H200635014			C0H200635010			C0H200635011			C0H200635013		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	24.0			34.0			35.0			60.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.55	J	DIY	0.68	J	DI	0.7	J	DI	0.45	J	DI
ARSENIC		9.7	J	DY	8.2	L	D	7.8	L	D	4.2	L	D
BERYLLIUM		1.7	J	DY	2	L	D	1.8	L	D	1.3	L	D
CADMIUM		5.2	J	DIY	19	J	DI	19.2	J	DI	9	J	DI
CHROMIUM		120	J	DY	336	L	D	304	L	D	173	L	D
COPPER		130	J	DY	99.6	L	D	88.8	L	D	25.3	L	D
LEAD		112	J	Y	169			165			36.6		
MERCURY		0.51	J	Y	0.92			0.97			0.39		
NICKEL		35.1	J	DY	44.1	L	D	40.8	L	D	20.1	L	D
SELENIUM		1.9	J	DY	2	L	D	1.8	L	D	0.92	L	D
SILVER		2	J	DY	6.6	L	D	8.3	L	D	2.9	L	D
THALLIUM		0.24	J	CY	0.34			0.29			0.12	K	C
ZINC		350	J	DY	421	L	D	379	L	D	124	L	D

PROJ_NO: 02903	NSAMPLE	SD-98-SS			SD-99-01			SD-99-02			SD-99-04		
SDG: C0H200635	LAB_ID	C0H200635009			C0H200635028			C0H200635029			C0H200635030		
FRACTION: M	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	30.0			41.0			38.0			42.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.8	J	DI	0.076	B	A	0.082	B	A	0.069	B	A
ARSENIC		10.1	L	D	5.4			6.1			5.2		
BERYLLIUM		1.9	L	D	1.7			1.8			1.7		
CADMIUM		7.7	J	DI	0.4	L	D	0.4	L	D	0.34	L	D
CHROMIUM		167	L	D	27.7			29.6			25.8		
COPPER		129	L	D	20.1	L	D	19.7	L	D	17.6	L	D
LEAD		131			12.5			12.8			11.5		
MERCURY		0.54			0.035	J	P	0.037	J	P	0.031	J	P
NICKEL		39.7	L	D	20.5	L	D	22.3	L	D	20.3	L	D
SELENIUM		1.8	L	D	1.2	L	D	1.2	L	D	1	L	D
SILVER		3.2	L	D	0.068	J	P	0.066	J	P	0.061	J	P
THALLIUM		0.28	K	C	0.17	K	C	0.18	K	C	0.16	K	C
ZINC		375	L	D	67.4			74.8			70.9		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-99-SS			SD-DUP4-02			SD-DUP5-01		
	LAB_ID	C0H200635027			C0H200635012			C0H200635024		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	38.0			51.0			32.0		
	DUP_OF				SD-100-02			SD-96-01		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.099	B	A	0.05	B	A	1	L	D
ARSENIC		4.7			3.9	L	D	9		
BERYLLIUM		1.7			1.1	L	D	2.3		
CADMIUM		0.61	L	D	0.25	J	DI	17.7	L	D
CHROMIUM		29.6			19.5	L	D	333		
COPPER		21	L	D	23.7	J	DG	106	L	D
LEAD		14.3			9.2			184		
MERCURY		0.039	J	P	0.023	J	P	0.86		
NICKEL		21.2	L	D	14.3	L	D	46.7	L	D
SELENIUM		0.99	L	D	0.73	L	D	2.1	L	D
SILVER		0.091	J	P	0.047	J	DP	7.3		
THALLIUM		0.19	K	C	0.12	K	C	0.34		
ZINC		69.7			49	L	D	430		

PROJ_NO: 02903 SDG: C0H200635 FRACTION: MISC MEDIA: SEDIMENT	NSAMPLE	SD-88-01			SD-88-02			SD-88-SS			SD-89-01		
	LAB_ID	C0H200635019			C0H200635020			C0H200635018			C0H200635023		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	31.0			36.0			31.0			31.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		32500			35900			31600			27300		

PROJ_NO: 02903	NSAMPLE	SD-89-02			SD-89-SS			SD-99-01			SD-99-02		
SDG: C0H200635	LAB_ID	C0H200635025			C0H200635022			C0H200635028			C0H200635029		
FRACTION: MISC	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	33.0			29.0			41.0			38.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		37100			28600			34900			34900		

PROJ_NO: 02903	NSAMPLE	SD-99-SS		
SDG: C0H200635	LAB_ID	C0H200635027		
FRACTION: MISC	SAMP_DATE	8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	38.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		31300		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: SD-100-01

TOTAL Metals

Lot-Sample #...: C0H200635-006 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 60

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.074	0.041	mg/kg	SW846 7471A	08/31/10	L5X151AE
		Dilution Factor: 0.5		Analysis Time..: 08:39	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.014	
Prep Batch #...: 0244130						
Silver	0.062 B	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AF
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0049	
Arsenic	4.1	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AG
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.023	
Beryllium	1.3	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AH
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0094	
Cadmium	0.28	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AJ
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0088	
Chromium	25.1 J	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X151AK
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0076	
Copper	18.4	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X151AL
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.041	
Nickel	19.3	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AM
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.014	
Lead	14.6	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AN
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0048	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-100-01

TOTAL Metals

Lot-Sample #...: C0H200635-006 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.14 B,J	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X151AP
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0033	
Selenium	0.96	0.63	mg/kg	SW846 6020	09/01-09/02/10	L5X151AQ
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.063	
Thallium	0.19	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X151AR
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0025	
Zinc	62.1	0.63	mg/kg	SW846 6020	09/01-09/02/10	L5X151AT
		Dilution Factor: 0.5		Analysis Time..: 15:26	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.081	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-02

TOTAL Metals

Lot-Sample #...: C0H200635-007 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 53

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.031 B	0.035	mg/kg	SW846 7471A	08/31/10	L5X161AE
		Dilution Factor: 0.5		Analysis Time..: 08:44	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.012	
Prep Batch #...: 0244130						
Silver	0.043 B	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AF
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0041	
Arsenic	3.8	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AG
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.019	
Beryllium	1.0	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AH
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0080	
Cadmium	0.20	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AJ
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0074	
Chromium	19.4 J	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X161AK
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0065	
Copper	12.3	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X161AL
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.035	
Nickel	14.1	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AM
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Lead	9.0	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AN
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0040	

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Tetra Tech NUS, Inc

Client Sample ID: SD-100-02

TOTAL Metals

Lot-Sample #...: C0H200635-007 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.066 B,J	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X161AP
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0028	
Selenium	0.71	0.53	mg/kg	SW846 6020	09/01-09/02/10	L5X161AQ
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.053	
Thallium	0.12	0.11	mg/kg	SW846 6020	09/01-09/02/10	L5X161AR
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0021	
Zinc	47.4	0.53	mg/kg	SW846 6020	09/01-09/02/10	L5X161AT
		Dilution Factor: 0.5		Analysis Time..: 15:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.069	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-04

TOTAL Metals

Lot-Sample #...: C0H200635-008 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/20/10
% Moisture.....: 37

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	ND	0.026	mg/kg	SW846 7471A	08/31/10	L5X171AE
		Dilution Factor: 0.5		Analysis Time..: 08:46	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.0087	
Prep Batch #...: 0244130						
Silver	**0.021 B**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AF**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0031	
Arsenic	**2.2**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AG**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.014	
Beryllium	**0.51**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AH**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0060	
Cadmium	**0.11**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AJ**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0056	
Chromium	**10.2 J**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AK**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0048	
Copper	**5.8**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AL**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.026	
Nickel	**7.4**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AM**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0090	
Lead	**4.4**	**0.079**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X171AN**
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0030	

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Tetra Tech NUS, Inc

Client Sample ID: SD-100-04

TOTAL Metals

Lot-Sample #...: C0H200635-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.027 B,J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X171AP
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0021	
Selenium	0.42	0.40	mg/kg	SW846 6020	09/01-09/02/10	L5X171AQ
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.040	
Thallium	0.065 B	0.079	mg/kg	SW846 6020	09/01-09/02/10	L5X171AR
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0016	
Zinc	26.4	0.40	mg/kg	SW846 6020	09/01-09/02/10	L5X171AT
		Dilution Factor: 0.5		Analysis Time..: 15:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.051	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-100-SS

TOTAL Metals

Lot-Sample #...: C0H200635-005 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 34

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.15	0.025	mg/kg	SW846 7471A	08/31/10	L5X131AE
		Dilution Factor: 0.5		Analysis Time..: 08:38	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.0083	
Prep Batch #...: 0244130						
Silver	0.46	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AF
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0030	
Arsenic	2.1	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AG
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.014	
Beryllium	0.38	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AH
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0057	
Cadmium	3.6	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AJ
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0053	
Chromium	42.7 J	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X131AK
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0046	
Copper	17.5	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X131AL
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.025	
Nickel	8.7	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AM
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0086	
Lead	32.2	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AN
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0029	

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Tetra Tech NUS, Inc

Client Sample ID: SD-100-SS

TOTAL Metals

Lot-Sample #...: C0H200635-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.15 J	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X131AP
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0020	
Selenium	0.48	0.38	mg/kg	SW846 6020	09/01-09/02/10	L5X131AQ
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.038	
Thallium	0.080	0.076	mg/kg	SW846 6020	09/01-09/02/10	L5X131AR
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0015	
Zinc	80.9	0.38	mg/kg	SW846 6020	09/01-09/02/10	L5X131AT
		Dilution Factor: 0.5		Analysis Time..: 15:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.049	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-01

TOTAL Metals

Lot-Sample #...: C0H200635-002 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/20/10
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.052**	**0.045**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X101AE**
		Dilution Factor: 0.5		Analysis Time..: 08:33	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.015	
Prep Batch #...: 0244130						
Silver	**0.059 B**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AF**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0053	
Arsenic	**5.0**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AG**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.025	
Beryllium	**1.4**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AH**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Cadmium	**0.26**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AJ**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0096	
Chromium	**26.6 J**	**0.27**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AK**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0083	
Copper	**16.5**	**0.27**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AL**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.045	
Nickel	**19.6**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AM**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.015	
Lead	**12.7**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AN**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: SD-106-01

TOTAL Metals

Lot-Sample #...: C0H200635-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.087 B,J**	**0.27**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AP**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0036	
Selenium	**0.98**	**0.68**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AQ**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.069	
Thallium	**0.18**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AR**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0027	
Zinc	**65.8**	**0.68**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X101AT**
		Dilution Factor: 0.5		Analysis Time..: 14:55	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.089	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-02

TOTAL Metals

Lot-Sample #...: C0H200635-003 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/20/10
% Moisture.....: 65

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.041 B	0.047	mg/kg	SW846 7471A	08/31/10	L5X111AE
		Dilution Factor: 0.5		Analysis Time..: 08:34	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.016	
Prep Batch #...: 0244130						
Silver	0.055 B	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AF
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0056	
Arsenic	4.9	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AG
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.026	
Beryllium	1.4	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AH
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	0.29	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AJ
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Chromium	27.9 J	0.29	mg/kg	SW846 6020	09/01-09/02/10	L5X111AK
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0087	
Copper	16.0	0.29	mg/kg	SW846 6020	09/01-09/02/10	L5X111AL
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.047	
Nickel	20.5	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AM
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Lead	12.5	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X111AN
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0054	

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Tetra Tech NUS, Inc

Client Sample ID: SD-106-02

TOTAL Metals

Lot-Sample #...: C0H200635-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.070 B,J**	**0.29**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X111AP**
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0037	
Selenium	**1.0**	**0.72**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X111AQ**
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.072	
Thallium	**0.18**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X111AR**
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0029	
Zinc	**70.2**	**0.72**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X111AT**
		Dilution Factor: 0.5		Analysis Time..: 14:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.093	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-04

TOTAL Metals

Lot-Sample #...: C0H200635-004 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/20/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.034 B	0.046	mg/kg	SW846 7471A	08/31/10	L5X121AE
		Dilution Factor: 0.5		Analysis Time..: 08:36	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.015	
Prep Batch #...: 0244130						
Silver	0.062 B	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AF
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0055	
Arsenic	6.1	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AG
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.025	
Beryllium	1.6	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AH
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	0.33	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AJ
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0098	
Chromium	31.7 J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X121AK
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0086	
Copper	15.8	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X121AL
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.046	
Nickel	24.8	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AM
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Lead	15.0	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AN
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0053	

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Tetra Tech NUS, Inc

Client Sample ID: SD-106-04

TOTAL Metals

Lot-Sample #...: C0H200635-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.075 B,J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X121AP
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0037	
Selenium	1.1	0.70	mg/kg	SW846 6020	09/01-09/02/10	L5X121AQ
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.071	
Thallium	0.20	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X121AR
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0028	
Zinc	88.0	0.70	mg/kg	SW846 6020	09/01-09/02/10	L5X121AT
		Dilution Factor: 0.5		Analysis Time..: 15:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.091	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-106-SS

TOTAL Metals

Lot-Sample #...: C0H200635-001 Matrix.....: SOLID
Date Sampled...: 08/18/10 Date Received..: 08/20/10
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.17	0.049	mg/kg	SW846 7471A	08/31/10	L5X1V1AR
		Dilution Factor: 0.5		Analysis Time..: 08:27	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.016	
Prep Batch #...: 0244130						
Silver	0.22	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AF
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0058	
Arsenic	9.3	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AG
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.027	
Beryllium	1.9	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AH
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	0.83 B	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AJ
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Chromium	44.6 J	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AK
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0091	
Copper	41.1	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AL
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.049	
Nickel	31.1	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AM
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.017	
Lead	52.8	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X1V1AN
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0057	

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Tetra Tech NUS, Inc

Client Sample ID: SD-106-SS

TOTAL Metals

Lot-Sample #...: C0H200635-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.28 B,J,E**	**0.30**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X1V1AP**
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0039	
Selenium	**1.7**	**0.75**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X1V1AQ**
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.075	
Thallium	**0.29**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X1V1AR**
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0030	
Zinc	**122**	**0.75**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X1V1AT**
		Dilution Factor: 0.5		Analysis Time..: 14:35	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.097	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Matrix interference.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-01

TOTAL Metals

Lot-Sample #...: C0H200635-019
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 69
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**1.0**	**0.053**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2P1AL**
		Dilution Factor: 0.5		Analysis Time..: 09:09	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.018	
Prep Batch #...: 0244083						
Silver	**0.0083**	**0.0037**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1A3**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00044	
Chromium	**2.4**	**0.0077**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00068	
Cadmium	**0.12**	**0.0036**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1A4**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00012	
Copper	**0.52**	**0.032**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0028	
Nickel	**0.20**	**0.055**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Lead	**0.75**	**0.0023**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00077	
Zinc	**4.1 J**	**0.12**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2P1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0091	
Prep Batch #...: 0244130						
Silver	**6.8**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2P1AM**
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0063	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-01

TOTAL Metals

Lot-Sample #...: C0H200635-019 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	8.5	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AN
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.029	
Beryllium	1.8	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AP
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Cadmium	15.7	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AQ
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Chromium	277 J	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AR
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0098	
Copper	95.2	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AT
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.053	
Nickel	42.1	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AU
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.018	
Lead	189	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AV
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0061	
Antimony	0.69 J	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AW
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0042	
Selenium	1.8	0.81	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1AX
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.081	
Thallium	0.27	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2P1A0
		Dilution Factor: 0.5		Analysis Time..: 16:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-01

TOTAL Metals

Lot-Sample #...: C0H200635-019 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**392**	**0.81**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2P1A1**

Dilution Factor: 0.5 Analysis Time..: 16:36 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244081 MDL.....: 0.10

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

TOTAL Metals

Lot-Sample #...: C0H200635-020 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/20/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**2.0**	**0.046**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2T1AR**
		Dilution Factor: 0.5		Analysis Time..: 09:10	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.015	
Prep Batch #...: 0244083						
Silver	**0.0072**	**0.0033**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00038	
Chromium	**5.6**	**0.0068**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00059	
Cadmium	**0.25**	**0.0031**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AF**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00010	
Copper	**0.30**	**0.028**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0025	
Nickel	**0.15**	**0.048**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AH**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0014	
Lead	**0.50**	**0.0020**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2T1AJ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00067	
Zinc	**6.0 J**	**0.22**	**umoles/gm**	**EPA SEM**	**09/01-09/03/10**	**L5X2T1AK**
		Dilution Factor: 2		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.016	
Prep Batch #...: 0244130						
Silver	**13.6**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2T1AT**
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0055	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

TOTAL Metals

Lot-Sample #...: C0H200635-020 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	8.3	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AU
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.025	
Beryllium	2.1	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AV
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	35.5	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AW
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0099	
Chromium	727 J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AX
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0086	
Copper	72.2	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1A0
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.046	
Nickel	38.8	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1A1
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Lead	158	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1A2
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0054	
Antimony	2.2 J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1A3
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0037	
Selenium	2.0	0.70	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1A4
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.071	
Thallium	0.29	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AA
		Dilution Factor: 0.5		Analysis Time..: 16:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0028	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-02

TOTAL Metals

Lot-Sample #...: C0H200635-020 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	572	0.70	mg/kg	SW846 6020	09/01-09/02/10	L5X2T1AC

Dilution Factor: 0.5 Analysis Time..: 16:40 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244081 MDL.....: 0.091

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-04

TOTAL Metals

Lot-Sample #...: C0H200635-021 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 49

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.057**	**0.033**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2W1AE**
		Dilution Factor: 0.5		Analysis Time..: 09:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.011	
Prep Batch #...: 0244083						
Silver	**0.0019 B**	**0.0023**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1AV**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00027	
Chromium	**0.19**	**0.0048**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1AU**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00042	
Cadmium	**0.012**	**0.0022**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1AW**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000071	
Copper	**0.11**	**0.019**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1AX**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0017	
Nickel	**0.052**	**0.034**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1A0**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00097	
Lead	**0.065**	**0.0014**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1A1**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00047	
Zinc	**0.48 J**	**0.076**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2W1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0056	
Prep Batch #...: 0244174						
Silver	**0.56**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AF**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0039	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-04

TOTAL Metals

Lot-Sample #...: C0H200635-021 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	**35.9**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AG**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.018	
Beryllium	**2.5**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AH**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0074	
Cadmium	**4.9**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AJ**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0069	
Chromium	**49.5 J**	**0.20**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AK**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0060	
Copper	**31.7**	**0.20**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AL**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.033	
Nickel	**103**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AM**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.011	
Lead	**31.0**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AN**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0038	
Antimony	**0.45**	**0.20**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AP**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0026	
Selenium	**2.0**	**0.49**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AQ**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.050	
Thallium	**20.3**	**0.099**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2W1AR**
		Dilution Factor: 0.5		Analysis Time..: 16:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0020	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-04

TOTAL Metals

Lot-Sample #...: C0H200635-021 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**4370**	**4.9**	**mg/kg**	**SW846 6020**	**09/01-09/05/10**	**L5X2W1AT**

Dilution Factor: 5 Analysis Time..: 12:04 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.64

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

TOTAL Metals

Lot-Sample #...: C0H200635-018 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 69

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**1.1**	**0.053**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2M1AF**
		Dilution Factor: 0.5		Analysis Time..: 09:07	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.018	
Prep Batch #...: 0244083						
Silver	**0.011**	**0.0037**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1AW**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00044	
Chromium	**2.5**	**0.0077**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1AV**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00068	
Cadmium	**0.15**	**0.0036**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1AX**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00012	
Copper	**0.53**	**0.032**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1A0**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0028	
Nickel	**0.19**	**0.055**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1A1**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Lead	**0.63**	**0.0023**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00077	
Zinc	**4.1 J**	**0.12**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X2M1A3**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0091	
Prep Batch #...: 0244130						
Silver	**7.2**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2M1AG**
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0063	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

TOTAL Metals

Lot-Sample #...: C0H200635-018 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	7.8	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AH
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.029	
Beryllium	1.8	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AJ
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Cadmium	19.3	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AK
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Chromium	336 J	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AL
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0098	
Copper	94.2	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AM
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.053	
Nickel	40.3	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AN
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.018	
Lead	170	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AP
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0061	
Antimony	0.75 J	0.32	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AQ
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0042	
Selenium	1.9	0.81	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AR
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.081	
Thallium	0.29	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2M1AT
		Dilution Factor: 0.5		Analysis Time..: 16:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-88-SS

TOTAL Metals

Lot-Sample #...: C0H200635-018 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**404**	**0.81**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2M1AU**

Dilution Factor: 0.5 Analysis Time..: 16:32 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244081 MDL.....: 0.10

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-01

TOTAL Metals

Lot-Sample #...: C0H200635-023 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 69

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.96**	**0.054**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X211A4**
		Dilution Factor: 0.5		Analysis Time..: 09:26	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.018	
Prep Batch #...: 0244083						
Silver	**0.0063**	**0.0038**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AQ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00044	
Chromium	**2.5**	**0.0079**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AP**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00069	
Cadmium	**0.12**	**0.0036**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AR**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00012	
Copper	**0.41**	**0.032**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AT**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0029	
Nickel	**0.18**	**0.056**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AU**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Lead	**0.58**	**0.0024**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AV**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00078	
Zinc	**4.0 J**	**0.12**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X211AW**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0092	
Prep Batch #...: 0244174						
Silver	**7.1**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X211AA**
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0064	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-01

TOTAL Metals

Lot-Sample #...: C0H200635-023 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	8.6	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AC
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.030	
Beryllium	2.2	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AD
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.012	
Cadmium	17.8	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AE
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.011	
Chromium	336 J	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X211AF
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.010	
Copper	107	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X211AG
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.054	
Nickel	46.5	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AH
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.018	
Lead	187	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AJ
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0062	
Antimony	0.95	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X211AK
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0042	
Selenium	2.0	0.82	mg/kg	SW846 6020	09/01-09/02/10	L5X211AL
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.082	
Thallium	0.35	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X211AM
		Dilution Factor: 0.5		Analysis Time..: 17:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0033	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-01

TOTAL Metals

Lot-Sample #...: C0H200635-023 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	441	0.82	mg/kg	SW846 6020	09/01-09/02/10	L5X211AN

Dilution Factor: 0.5 Analysis Time..: 17:37 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.11

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-02

TOTAL Metals

Lot-Sample #...: C0H200635-025 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 67

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	2.5	0.049	mg/kg	SW846 7471A	08/31/10	L5X261AF
		Dilution Factor: 0.5		Analysis Time..: 09:29	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.016	
Prep Batch #...: 0244083						
Silver	0.014	0.0035	umoles/gm	EPA SEM	09/01-09/02/10	L5X261AW
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00040	
Chromium	3.9	0.0072	umoles/gm	EPA SEM	09/01-09/02/10	L5X261AV
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00063	
Cadmium	0.19	0.0033	umoles/gm	EPA SEM	09/01-09/02/10	L5X261AX
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00011	
Copper	0.48	0.029	umoles/gm	EPA SEM	09/01-09/02/10	L5X261A0
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0026	
Nickel	0.20	0.051	umoles/gm	EPA SEM	09/01-09/02/10	L5X261A1
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0015	
Lead	0.68	0.0022	umoles/gm	EPA SEM	09/01-09/02/10	L5X261A2
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00071	
Zinc	4.1 J	0.11	umoles/gm	EPA SEM	09/01-09/02/10	L5X261A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0084	
Prep Batch #...: 0244174						
Silver	23.0	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AG
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0058	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-02

TOTAL Metals

Lot-Sample #...: C0H200635-025 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	10.2	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AH
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.027	
Beryllium	2.3	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AJ
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.011	
Cadmium	30.2	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AK
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.010	
Chromium	569 J	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X261AL
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0091	
Copper	121	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X261AM
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.049	
Nickel	54.6	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AN
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.017	
Lead	226	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AP
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0057	
Antimony	1.3	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X261AQ
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0039	
Selenium	2.4	0.75	mg/kg	SW846 6020	09/01-09/02/10	L5X261AR
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.075	
Thallium	0.36	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X261AT
		Dilution Factor: 0.5		Analysis Time..: 17:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0030	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-02

TOTAL Metals

Lot-Sample #...: C0H200635-025

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	492	0.75	mg/kg	SW846 6020	09/01-09/02/10	L5X261AU

Dilution Factor: 0.5 Analysis Time..: 17:46 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.097

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-04

TOTAL Metals

Lot-Sample #...: C0H200635-026
Date Sampled...: 08/19/10 Date Received..: 08/20/10 Matrix.....: SOLID
% Moisture.....: 52

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	0.12	0.034	mg/kg	SW846 7471A	08/31/10	L5X291AE
		Dilution Factor: 0.5		Analysis Time..: 09:31	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.011	
Prep Batch #...: 0244083						
Silver	0.0038	0.0024	umoles/gm	EPA SEM	09/01-09/02/10	L5X291AV
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00028	
Chromium	0.48	0.0050	umoles/gm	EPA SEM	09/01-09/02/10	L5X291AU
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00043	
Cadmium	0.025	0.0023	umoles/gm	EPA SEM	09/01-09/02/10	L5X291AW
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000074	
Copper	0.11	0.020	umoles/gm	EPA SEM	09/01-09/02/10	L5X291AX
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0018	
Nickel	0.042	0.035	umoles/gm	EPA SEM	09/01-09/02/10	L5X291A0
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0010	
Lead	0.087	0.0015	umoles/gm	EPA SEM	09/01-09/02/10	L5X291A1
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00049	
Zinc	0.70 J	0.079	umoles/gm	EPA SEM	09/01-09/02/10	L5X291A2
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0058	
Prep Batch #...: 0244174						
Silver	1.9	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AF
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0040	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-04

TOTAL Metals

Lot-Sample #...: C0H200635-026 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	5.3	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AG
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.019	
Beryllium	1.9	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AH
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0077	
Cadmium	4.2	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AJ
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0072	
Chromium	102 J	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X291AK
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0063	
Copper	30.5	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X291AL
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.034	
Nickel	24.6	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AM
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.012	
Lead	33.9	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AN
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0039	
Antimony	0.30	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X291AP
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0027	
Selenium	1.2	0.52	mg/kg	SW846 6020	09/01-09/02/10	L5X291AQ
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.052	
Thallium	0.16	0.10	mg/kg	SW846 6020	09/01-09/02/10	L5X291AR
		Dilution Factor: 0.5		Analysis Time..: 17:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0021	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-04

TOTAL Metals

Lot-Sample #...: C0H200635-026 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	102	0.52	mg/kg	SW846 6020	09/01-09/02/10	L5X291AT

Dilution Factor: 0.5 Analysis Time..: 17:50 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.067

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-89-SS

TOTAL Metals

Lot-Sample #...: C0H200635-022 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 71

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.76**	**0.057**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X201AX**
		Dilution Factor: 0.5		Analysis Time..: 09:17	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.019	
Prep Batch #...: 0244083						
Silver	**0.0093**	**0.0040**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AK**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00047	
Chromium	**1.7**	**0.0084**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AJ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00073	
Cadmium	**0.087**	**0.0039**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AL**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00013	
Copper	**0.68**	**0.034**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AM**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0031	
Nickel	**0.16**	**0.059**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AN**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0017	
Lead	**0.50**	**0.0025**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AP**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00083	
Zinc	**4.0 J**	**0.13**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X201AQ**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0098	
Prep Batch #...: 0244174						
Silver	**5.6**	**0.17**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X201A0**
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0068	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-SS

TOTAL Metals

Lot-Sample #...: C0H200635-022 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	9.8	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201A1
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.031	
Beryllium	2.1	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201A2
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.013	
Cadmium	11.9	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201A3
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.012	
Chromium	251 J	0.35	mg/kg	SW846 6020	09/01-09/02/10	L5X201A4
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.011	
Copper	118	0.35	mg/kg	SW846 6020	09/01-09/02/10	L5X201AA
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.057	
Nickel	42.9	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201AC
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.020	
Lead	147	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201AD
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0066	
Antimony	0.90	0.35	mg/kg	SW846 6020	09/01-09/02/10	L5X201AE
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0045	
Selenium	2.0	0.87	mg/kg	SW846 6020	09/01-09/02/10	L5X201AF
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.087	
Thallium	0.32	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X201AG
		Dilution Factor: 0.5		Analysis Time..: 17:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0035	

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Tetra Tech NUS, Inc

Client Sample ID: SD-89-SS

TOTAL Metals

Lot-Sample #...: C0H200635-022 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	415	0.87	mg/kg	SW846 6020	09/01-09/02/10	L5X201AH

Dilution Factor: 0.5 Analysis Time..: 17:33 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.11

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-01

TOTAL Metals

Lot-Sample #...: C0H200635-015 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 69

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.90**	**0.053**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2F1AE**
		Dilution Factor: 0.5		Analysis Time..: 08:58	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.017	
Prep Batch #...: 0244130						
Silver	**6.3**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AF**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0062	
Arsenic	**7.5**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AG**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.029	
Beryllium	**1.8**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AH**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Cadmium	**14.9**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AJ**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Chromium	**276 J**	**0.32**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AK**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0097	
Copper	**121**	**0.32**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AL**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.053	
Nickel	**39.4**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AM**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.018	
Lead	**148**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AN**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0061	

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Tetra Tech NUS, Inc

Client Sample ID: SD-96-01

TOTAL Metals

Lot-Sample #...: C0H200635-015 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.61 J**	**0.32**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AP**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0041	
Selenium	**1.8**	**0.80**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AQ**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.080	
Thallium	**0.28**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AR**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0032	
Zinc	**377**	**0.80**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2F1AT**
		Dilution Factor: 0.5		Analysis Time..: 16:05	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-02

TOTAL Metals

Lot-Sample #...: C0H200635-016 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**1.8**	**0.046**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2H1AE**
		Dilution Factor: 0.5		Analysis Time..: 09:00	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.015	
Prep Batch #...: 0244130						
Silver	**14.4**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AF**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0054	
Arsenic	**8.2**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AG**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.025	
Beryllium	**1.8**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AH**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Cadmium	**25.9**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AJ**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0097	
Chromium	**441 J**	**0.28**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AK**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0084	
Copper	**88.1**	**0.28**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AL**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.046	
Nickel	**41.1**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AM**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Lead	**163**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2H1AN**
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: SD-96-02

TOTAL Metals

Lot-Sample #...: C0H200635-016 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.83 J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X2H1AP
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0036	
Selenium	1.9	0.69	mg/kg	SW846 6020	09/01-09/02/10	L5X2H1AQ
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.069	
Thallium	0.27	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2H1AR
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0028	
Zinc	387	0.69	mg/kg	SW846 6020	09/01-09/02/10	L5X2H1AT
		Dilution Factor: 0.5		Analysis Time..: 16:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.090	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-04

TOTAL Metals

Lot-Sample #...: C0H200635-017
Date Sampled...: 08/19/10 Date Received..: 08/20/10 Matrix.....: SOLID
% Moisture.....: 36

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.098	0.026	mg/kg	SW846 7471A	08/31/10	L5X2J1AE
		Dilution Factor: 0.5		Analysis Time..: 09:05	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.0085	
Prep Batch #...: 0244130						
Silver	2.3	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AF
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0031	
Arsenic	8.2	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AG
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.014	
Beryllium	2.0	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AH
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0059	
Cadmium	4.1	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AJ
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0055	
Chromium	98.9 J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AK
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0048	
Copper	52.3	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AL
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.026	
Nickel	24.0	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AM
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0089	
Lead	24.0	0.078	mg/kg	SW846 6020	09/01-09/02/10	L5X2J1AN
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0030	

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Tetra Tech NUS, Inc

Client Sample ID: SD-96-04

TOTAL Metals

Lot-Sample #...: C0H200635-017 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.53 J**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2J1AP**
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0020	
Selenium	**0.94**	**0.39**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2J1AQ**
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.039	
Thallium	**0.11**	**0.078**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2J1AR**
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0016	
Zinc	**89.1**	**0.39**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2J1AT**
		Dilution Factor: 0.5		Analysis Time..: 16:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.051	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-96-SS

TOTAL Metals

Lot-Sample #...: C0H200635-014
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 76
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.51	0.069	mg/kg	SW846 7471A	08/31/10	L5X2E1AE
		Dilution Factor: 0.5		Analysis Time..: 08:56	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.023	
Prep Batch #...: 0244130						
Silver	2.0	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AF
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0081	
Arsenic	9.7	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AG
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.038	
Beryllium	1.7	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AH
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Cadmium	5.2	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AJ
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.015	
Chromium	120 J	0.42	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AK
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.013	
Copper	130	0.42	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AL
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.069	
Nickel	35.1	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AM
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.023	
Lead	112	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AN
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0079	

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Tetra Tech NUS, Inc

Client Sample ID: SD-96-SS

TOTAL Metals

Lot-Sample #...: C0H200635-014 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.55 J	0.42	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AP
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0054	
Selenium	1.9	1.0	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AQ
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.10	
Thallium	0.24	0.21	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AR
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0042	
Zinc	350	1.0	mg/kg	SW846 6020	09/01-09/02/10	L5X2E1AT
		Dilution Factor: 0.5		Analysis Time..: 16:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.13	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-01

TOTAL Metals

Lot-Sample #...: C0H200635-010 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.92**	**0.049**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X191AE**
		Dilution Factor: 0.5		Analysis Time..: 08:50	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.016	
Prep Batch #...: 0244130						
Silver	**6.6**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AF**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0058	
Arsenic	**8.2**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AG**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.027	
Beryllium	**2.0**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AH**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	**19.0**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AJ**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Chromium	**336 J**	**0.30**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AK**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0090	
Copper	**99.6**	**0.30**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AL**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.049	
Nickel	**44.1**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AM**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.017	
Lead	**169**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X191AN**
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0056	

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Tetra Tech NUS, Inc

Client Sample ID: SD-98-01

TOTAL Metals

Lot-Sample #...: C0H200635-010 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.68 J	0.30	mg/kg	SW846 6020	09/01-09/02/10	L5X191AP
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0038	
Selenium	2.0	0.74	mg/kg	SW846 6020	09/01-09/02/10	L5X191AQ
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.074	
Thallium	0.34	0.15	mg/kg	SW846 6020	09/01-09/02/10	L5X191AR
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0030	
Zinc	421	0.74	mg/kg	SW846 6020	09/01-09/02/10	L5X191AT
		Dilution Factor: 0.5		Analysis Time..: 15:43	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.096	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-02

TOTAL Metals

Lot-Sample #...: C0H200635-011
Date Sampled...: 08/19/10 Date Received..: 08/20/10 Matrix.....: SOLID
% Moisture.....: 65

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.97**	**0.047**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2A1AK**
		Dilution Factor: 0.5		Analysis Time..: 08:51	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.015	
Prep Batch #...: 0244130						
Silver	**8.3**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AF**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0055	
Arsenic	**7.8**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AG**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.026	
Beryllium	**1.8**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AH**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Cadmium	**19.2**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AJ**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0099	
Chromium	**304 J**	**0.28**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AK**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0086	
Copper	**88.8**	**0.28**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AL**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.047	
Nickel	**40.8**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AM**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.016	
Lead	**165**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2A1AN**
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0054	

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Tetra Tech NUS, Inc

Client Sample ID: SD-98-02

TOTAL Metals

Lot-Sample #...: C0H200635-011 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.70 J	0.28	mg/kg	SW846 6020	09/01-09/02/10	L5X2A1AP
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0037	
Selenium	1.8	0.71	mg/kg	SW846 6020	09/01-09/02/10	L5X2A1AQ
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.071	
Thallium	0.29	0.14	mg/kg	SW846 6020	09/01-09/02/10	L5X2A1AR
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0028	
Zinc	379	0.71	mg/kg	SW846 6020	09/01-09/02/10	L5X2A1AT
		Dilution Factor: 0.5		Analysis Time..: 15:47	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.092	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-04

TOTAL Metals

Lot-Sample #...: C0H200635-013 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 40

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.39**	**0.027**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2D1AE**
		Dilution Factor: 0.5		Analysis Time..: 08:54	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.0090	
Prep Batch #...: 0244130						
Silver	**2.9**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AF**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0032	
Arsenic	**4.2**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AG**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.015	
Beryllium	**1.3**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AH**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0062	
Cadmium	**9.0**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AJ**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0058	
Chromium	**173 J**	**0.17**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AK**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0051	
Copper	**25.3**	**0.17**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AL**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.027	
Nickel	**20.1**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AM**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0094	
Lead	**36.6**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AN**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-98-04

TOTAL Metals

Lot-Sample #...: C0H200635-013 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.45 J**	**0.17**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AP**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0022	
Selenium	**0.92**	**0.42**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AQ**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.042	
Thallium	**0.12**	**0.083**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AR**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0017	
Zinc	**124**	**0.42**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2D1AT**
		Dilution Factor: 0.5		Analysis Time..: 15:56	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.054	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-98-SS

TOTAL Metals

Lot-Sample #...: C0H200635-009 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 70

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	0.54	0.055	mg/kg	SW846 7471A	08/31/10	L5X181AE
		Dilution Factor: 0.5		Analysis Time..: 08:48	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.018	
Prep Batch #...: 0244130						
Silver	3.2	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AF
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0065	
Arsenic	10.1	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AG
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.030	
Beryllium	1.9	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AH
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Cadmium	7.7	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AJ
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.012	
Chromium	167 J	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X181AK
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.010	
Copper	129	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X181AL
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.055	
Nickel	39.7	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AM
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.019	
Lead	131	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AN
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0063	

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Tetra Tech NUS, Inc

Client Sample ID: SD-98-SS

TOTAL Metals

Lot-Sample #...: C0H200635-009 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.80 J	0.33	mg/kg	SW846 6020	09/01-09/02/10	L5X181AP
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0043	
Selenium	1.8	0.83	mg/kg	SW846 6020	09/01-09/02/10	L5X181AQ
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.084	
Thallium	0.28	0.17	mg/kg	SW846 6020	09/01-09/02/10	L5X181AR
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0033	
Zinc	375	0.83	mg/kg	SW846 6020	09/01-09/02/10	L5X181AT
		Dilution Factor: 0.5		Analysis Time..: 15:39	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-01

TOTAL Metals

Lot-Sample #...: C0H200635-028 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 59

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	0.035 B	0.040	mg/kg	SW846 7471A	08/31/10	L5X3D1AL
		Dilution Factor: 0.5		Analysis Time..: 09:34	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.013	
Prep Batch #...: 0244083						
Silver	ND	0.0028	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00033	
Chromium	0.033	0.0059	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1A2
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00051	
Cadmium	0.0014 B	0.0027	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1A4
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000088	
Copper	0.060	0.024	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1AA
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0022	
Nickel	0.047	0.042	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1AC
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0012	
Lead	0.024	0.0018	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00059	
Zinc	0.37 J	0.094	umoles/gm	EPA SEM	09/01-09/02/10	L5X3D1AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0069	
Prep Batch #...: 0244174						
Silver	0.068 B	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AM
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0048	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-01

TOTAL Metals

Lot-Sample #...: C0H200635-028 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	5.4	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AN
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.022	
Beryllium	1.7	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AP
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0092	
Cadmium	0.40	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AQ
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0086	
Chromium	27.7 J	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AR
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0075	
Copper	20.1	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AT
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.040	
Nickel	20.5	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AU
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.014	
Lead	12.5	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AV
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0047	
Antimony	0.076 B	0.25	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AW
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0032	
Selenium	1.2	0.61	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1AX
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.062	
Thallium	0.17	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1A0
		Dilution Factor: 0.5		Analysis Time..: 17:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0025	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-01

TOTAL Metals

Lot-Sample #...: C0H200635-028 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	67.4	0.61	mg/kg	SW846 6020	09/01-09/02/10	L5X3D1A1

Dilution Factor: 0.5 Analysis Time..: 17:59 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.079

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-02

TOTAL Metals

Lot-Sample #...: C0H200635-029 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 62

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	0.037 B	0.044	mg/kg	SW846 7471A	08/31/10	L5X3F1AR
		Dilution Factor: 0.5		Analysis Time..: 09:36	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.014	
Prep Batch #...: 0244083						
Silver	ND	0.0031	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00036	
Chromium	0.032	0.0064	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00055	
Cadmium	0.0013 B	0.0029	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AF
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000095	
Copper	0.023 B	0.026	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AG
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0023	
Nickel	0.039 B	0.045	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AH
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0013	
Lead	0.017	0.0019	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00063	
Zinc	0.43 J	0.10	umoles/gm	EPA SEM	09/01-09/02/10	L5X3F1AK
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0075	
Prep Batch #...: 0244174						
Silver	0.066 B	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AT
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-02

TOTAL Metals

Lot-Sample #...: C0H200635-029 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	6.1	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AU
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.024	
Beryllium	1.8	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AV
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0099	
Cadmium	0.40	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AW
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0092	
Chromium	29.6 J	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AX
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0081	
Copper	19.7	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1A0
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.044	
Nickel	22.3	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1A1
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.015	
Lead	12.8	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1A2
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0050	
Antimony	0.082 B	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1A3
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0034	
Selenium	1.2	0.66	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1A4
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.066	
Thallium	0.18	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3F1AA
		Dilution Factor: 0.5		Analysis Time..: 18:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0026	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-02

TOTAL Metals

Lot-Sample #...: C0H200635-029 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**74.8**	**0.66**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X3F1AC**

Dilution Factor: 0.5 Analysis Time..: 18:03 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.086

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-04

TOTAL Metals

Lot-Sample #...: C0H200635-030 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 58

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.031 B**	**0.039**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X3G1AJ**
		Dilution Factor: 0.5		Analysis Time..: 09:38	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.013	
Prep Batch #...: 0244083						
Silver	ND	0.0028	umoles/gm	EPA SEM	09/01-09/02/10	L5X3G1A1
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00032	
Chromium	**0.038**	**0.0057**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1A0**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00050	
Cadmium	**0.0014 B**	**0.0026**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000086	
Copper	**0.042**	**0.023**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1A3**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0021	
Nickel	**0.049**	**0.041**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0012	
Lead	**0.019**	**0.0017**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00057	
Zinc	**0.49 J**	**0.091**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3G1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0067	
Prep Batch #...: 0244174						
Silver	**0.061 B**	**0.12**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X3G1AK**
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0046	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-04

TOTAL Metals

Lot-Sample #...: C0H200635-030 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	5.2	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AL
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.022	
Beryllium	1.7	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AM
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0089	
Cadmium	0.34	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AN
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0083	
Chromium	25.8 J	0.24	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AP
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0073	
Copper	17.6	0.24	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AQ
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.039	
Nickel	20.3	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AR
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.013	
Lead	11.5	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AT
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0045	
Antimony	0.069 B	0.24	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AU
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0031	
Selenium	1.0	0.59	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AV
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.060	
Thallium	0.16	0.12	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AW
		Dilution Factor: 0.5		Analysis Time..: 18:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0024	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-04

TOTAL Metals

Lot-Sample #...: C0H200635-030 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	70.9	0.59	mg/kg	SW846 6020	09/01-09/02/10	L5X3G1AX

Dilution Factor: 0.5 Analysis Time..: 18:07 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.077

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-99-SS

TOTAL Metals

Lot-Sample #...: C0H200635-027
Date Sampled...: 08/19/10 Date Received..: 08/20/10 Matrix.....: SOLID
% Moisture.....: 62

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.039 B**	**0.043**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X3A1AF**
		Dilution Factor: 0.5		Analysis Time..: 09:32	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.014	
Prep Batch #...: 0244083						
Silver	ND	0.0030	umoles/gm	EPA SEM	09/01-09/02/10	L5X3A1AW
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00035	
Chromium	**0.064**	**0.0063**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1AV**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00055	
Cadmium	**0.0035**	**0.0029**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1AX**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000094	
Copper	**0.12**	**0.026**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1A0**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0023	
Nickel	**0.077**	**0.045**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1A1**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0013	
Lead	**0.037**	**0.0019**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00063	
Zinc	**0.43 J**	**0.10**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L5X3A1A3**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0074	
Prep Batch #...: 0244174						
Silver	**0.091 B**	**0.13**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X3A1AG**
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0051	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-SS

TOTAL Metals

Lot-Sample #...: C0H200635-027 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	4.7	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AH
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.024	
Beryllium	1.7	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AJ
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0098	
Cadmium	0.61	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AK
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0092	
Chromium	29.6 J	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AL
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0080	
Copper	21.0	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AM
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.043	
Nickel	21.2	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AN
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.015	
Lead	14.3	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AP
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0050	
Antimony	0.099 B	0.26	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AQ
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0034	
Selenium	0.99	0.65	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AR
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.066	
Thallium	0.19	0.13	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AT
		Dilution Factor: 0.5		Analysis Time..: 17:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0026	

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Tetra Tech NUS, Inc

Client Sample ID: SD-99-SS

TOTAL Metals

Lot-Sample #...: C0H200635-027

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	69.7	0.65	mg/kg	SW846 6020	09/01-09/02/10	L5X3A1AU

Dilution Factor: 0.5 Analysis Time..: 17:54 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244101 MDL.....: 0.085

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP4-02

TOTAL Metals

Lot-Sample #...: C0H200635-012 Matrix.....: SOLID
Date Sampled...: 08/19/10 Date Received..: 08/20/10
% Moisture.....: 49

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243016						
Mercury	**0.023 B**	**0.032**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X2C1AE**
		Dilution Factor: 0.5		Analysis Time..: 08:53	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243008	MDL.....: 0.011	
Prep Batch #...: 0244130						
Silver	**0.047 B**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AF**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0038	
Arsenic	**3.9**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AG**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.018	
Beryllium	**1.1**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AH**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0073	
Cadmium	**0.25**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AJ**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0068	
Chromium	**19.5 J**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AK**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0059	
Copper	**23.7**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AL**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.032	
Nickel	**14.3**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AM**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.011	
Lead	**9.2**	**0.097**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X2C1AN**
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0037	

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Tetra Tech NUS, Inc

Client Sample ID: SD-DUP4-02

TOTAL Metals

Lot-Sample #...: C0H200635-012 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.050 B,J	0.19	mg/kg	SW846 6020	09/01-09/02/10	L5X2C1AP
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0025	
Selenium	0.73	0.49	mg/kg	SW846 6020	09/01-09/02/10	L5X2C1AQ
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.049	
Thallium	0.12	0.097	mg/kg	SW846 6020	09/01-09/02/10	L5X2C1AR
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.0019	
Zinc	49.0	0.49	mg/kg	SW846 6020	09/01-09/02/10	L5X2C1AT
		Dilution Factor: 0.5		Analysis Time..: 15:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244081	MDL.....: 0.063	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP5-01

TOTAL Metals

Lot-Sample #...: C0H200635-024
Date Sampled...: 08/19/10 Date Received..: 08/20/10 Matrix.....: SOLID
% Moisture.....: 68

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0243020						
Mercury	**0.86**	**0.051**	**mg/kg**	**SW846 7471A**	**08/31/10**	**L5X241AE**
		Dilution Factor: 0.5		Analysis Time..: 09:27	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0243010	MDL.....: 0.017	
Prep Batch #...: 0244174						
Silver	**7.3**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AF**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0060	
Arsenic	**9.0**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AG**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.028	
Beryllium	**2.3**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AH**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.012	
Cadmium	**17.7**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AJ**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.011	
Chromium	**333 J**	**0.31**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AK**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0095	
Copper	**106**	**0.31**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AL**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.051	
Nickel	**46.7**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AM**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.018	
Lead	**184**	**0.16**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L5X241AN**
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0059	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-DUP5-01

TOTAL Metals

Lot-Sample #...: C0H200635-024 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.0	0.31	mg/kg	SW846 6020	09/01-09/02/10	L5X241AP
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0040	
Selenium	2.1	0.78	mg/kg	SW846 6020	09/01-09/02/10	L5X241AQ
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.078	
Thallium	0.34	0.16	mg/kg	SW846 6020	09/01-09/02/10	L5X241AR
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.0031	
Zinc	430	0.78	mg/kg	SW846 6020	09/01-09/02/10	L5X241AT
		Dilution Factor: 0.5		Analysis Time..: 17:42	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244101	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0H200635

AMBIENT MICRO-MIDI ACID PURGE

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-88-SS	C0H200635 018	L5X2M1A4	3.3	umoles/g —	0.50	1.6	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-88-01	C0H200635 019	L5X2P1AF	8.8	umoles/g —	0.50	1.6	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-88-02	C0H200635 020	L5X2T1AL	5.0	umoles/g —	0.44	1.4	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-88-04	C0H200635 021	L5X2W1A3	ND	umoles/g —	0.31	0.99	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-89-SS	C0H200635 022	L5X201AR	11.9	umoles/g —	0.54	1.7	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-89-01	C0H200635 023	L5X211AX	4.6	umoles/g —	0.51	1.6	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-89-02	C0H200635 025	L5X261A4	0.74 B	umoles/g —	0.46	1.5	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-89-04	C0H200635 026	L5X291A3	ND	umoles/g —	0.32	1.0	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-99-SS	C0H200635 027	L5X3A1A4	ND	umoles/g —	0.41	1.3	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-99-01	C0H200635 028	L5X3D1AF	ND	umoles/g —	0.38	1.2	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-99-02	C0H200635 029	L5X3F1AL	ND	umoles/g —	0.41	1.3	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-99-04	C0H200635 030	L5X3G1AE	5.7	umoles/g —	0.37	1.2	1	9/1/2010 - 9/1/2010 14:11	0244072

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H200635

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 20, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

Several samples were analyzed at a dilution due to matrix interference and/or concentration of compounds detected.

Sample SD-100-01 had nitrobenzene-d5 surrogate recover above the control limit.

PCBs:
There were no problems associated with the analysis.

Metals:
The serial dilution percent difference was outside the control limit for cadmium, and antimony for sample SD-106-SS.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spikes of sample SD-106-SS recovered below the control limit for antimony, arsenic, beryllium, copper, and selenium. The matrix spike duplicate recovered below the control limit for cadmium, chromium, nickel, silver and zinc.

For the matrix spikes of sample SD-106-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H200635

Metals (cont):
For the matrix spikes of sample SD-88-04, arsenic, lead, thallium, and zinc recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

The matrix spikes of sample SD-88-04 recovered below the control limit for antimony, cadmium, copper, nickel and selenium.

General Chemistry:
There were no problems associated with the analysis.

METHODS SUMMARY

C0H200635

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H200635

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5X1V	001	SD-106-SS	08/18/10	16:01
L5X10	002	SD-106-01	08/18/10	16:03
L5X11	003	SD-106-02	08/18/10	16:05
L5X12	004	SD-106-04	08/18/10	16:07
L5X13	005	SD-100-SS	08/19/10	08:47
L5X15	006	SD-100-01	08/19/10	08:49
L5X16	007	SD-100-02	08/19/10	08:51
L5X17	008	SD-100-04	08/19/10	08:53
L5X18	009	SD-98-SS	08/19/10	10:03
L5X19	010	SD-98-01	08/19/10	10:05
L5X2A	011	SD-98-02	08/19/10	10:07
L5X2C	012	SD-DUP4-02	08/19/10	12:00
L5X2D	013	SD-98-04	08/19/10	10:09
L5X2E	014	SD-96-SS	08/19/10	10:53
L5X2F	015	SD-96-01	08/19/10	10:55
L5X2H	016	SD-96-02	08/19/10	10:57
L5X2J	017	SD-96-04	08/19/10	10:59
L5X2M	018	SD-88-SS	08/19/10	11:29
L5X2P	019	SD-88-01	08/19/10	11:31
L5X2T	020	SD-88-02	08/19/10	11:33
L5X2W	021	SD-88-04	08/19/10	11:35
L5X20	022	SD-89-SS	08/19/10	12:25
L5X21	023	SD-89-01	08/19/10	12:27
L5X24	024	SD-DUP5-01	08/19/10	16:15
L5X26	025	SD-89-02	08/19/10	12:29
L5X29	026	SD-89-04	08/19/10	12:31
L5X3A	027	SD-99-SS	08/19/10	14:35
L5X3D	028	SD-99-01	08/19/10	14:37
L5X3F	029	SD-99-02	08/19/10	14:39
L5X3G	030	SD-99-04	08/19/10	14:41

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

COH200635

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154238
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 1 of 3
City: Germantown / State: MD / Zip Code: 20874	Site Contact: Tony Appavaje	Lab Contact:	
Project Name and Location (State): MRC Sed. Samp. Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-106-SS	8/18/10	1601			X		X						X	X	X	
SD-106-01		1603											X	X	X	
SD-106-02		1605											X	X	X	
SD-106-04	8/18/10	1607											X	X	X	
SD-100-SS	8/19/10	0847											X	X	X	
SD-100-01		0849											X	X	X	
SD-100-02		0851											X	X	X	
SD-100-04		0853											X	X	X	
SD-98-SS		1003											X	X	X	
SD-98-01		1005											X	X	X	
SD-98-02		1007											X	X	X	
SD-DUP4-02	8/19/10	1200			X		X						X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

1. Relinquished By	Date: 8/19/10	Time: 1530	1. Received By	Date: 8/19/10	Time: 1530
2. Relinquished By: Paul Hayward	Date: 8/19/10	Time: 1620	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/20/10	Time: 1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

C0H200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141296
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528 3022 301 528 3000	Lab Number:	Page 2 of 3
City: GERMANTOWN State: MD Zip Code:	Site Contact: Tony Apanowage Lab Contact:		
Project Name and Location (State): MRC SEDIMENT SAMPLING MIDDLE RIVER, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals + Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-98-04	8/19/10	1009			X		X						X	X	X			
SD-96-SS	↓	1053			↓		↓						X	X	X			
SD-96-01		1055											X	X	X			
SD-96-02		1057											X	X	X			
SD-96-04		1059											X	X	X			
SD-88-SS		1129											X	X	X	X	X	
SD-88-01		1131											X	X	X	X	X	
SD-88-02		1133											X	X	X	X	X	
SD-88-04		1135											X	X	X	[illegible]	X	
SD-89-SS		1225											X	X	X	X	X	
SD-89-01	↓	1227			↓		↓						X	X	X	X	X	
SD-DUP5-01	8/19/10	1615			X		X						X	X	X			

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/19/10	1530	1. Received By: [signature]	8/19/10	1530
2. Relinquished By: Paul Gaylord	8/19/10	1620	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/20/10	10:00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1-389)

COH200635

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TAL-4124 (1007)

Client: TETRA Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154237
Address: 20251 Century Blvd suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 · 301-528-3000	Lab Number:	Page 3 of 3
City: Germantown	State: MD	Zip Code: 20874	Site Contact: Tony Apanewicz	Lab Contact:
Project Name and Location (State): MRC Sed. Samp. Middle River MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TPP METALS	PAHs	PCBs	TOC	AVS/SEM
SD-89-02	8/19/10	1229			X		X						X	X	X	X	X
SD-89-04		1231											X	X	X	X	X
SD-99-SS		1435											X	X	X	X	X
SD-99-01		1437											X	X	X	X	X
SD-99-02		1439											X	X	X	X	X
SD-99-04	8/19/10	1441			X		X						X	X	X	X	X

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date: 8/19/10	Time: 1530	1. Received By: Paul Hufford	Date: 8/19/10	Time: 1530
2. Relinquished By: Paul Hufford	Date: 8/19/10	Time: 1620	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/20/10	Time: 1033

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/20/10

Coolers Opened and Unpacked on: 8/20/10 By: RLF (Signature)

TestAmerica Pittsburgh Lot Number: C0H200635

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	/		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	/		
2.	Were custody papers included inside the cooler?	/		
3.	Were custody papers properly filled out (ink, signed, match labels)?	/		
4.	Did you sign the custody papers in the appropriate place?	/		
5.	Was shippers packing slip attached to this form?	/		
6.	Were packing materials used?	/		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	/		
8.	Were the samples appropriately preserved?			/
9.	Were all bottles sealed in separate plastic bags?		/	
10.	Did all bottles arrive in good condition (unbroken)?	/		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	/		
12.	Did all bottle labels and/or tags agree with custody papers?	/		
13.	Were correct bottles used for tests indicated?	/		/
14.	Were all VOA vials checked for the presence of air bubbles?		/	/
15.	Was a sufficient amount of sample sent in each bottle?	/		

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H200635

FRACTION	CHEMICAL	SD-100-02	UNITS	SD-DUP4-02	RPD	D
M	ANTIMONY	0.066 J	MG/KG	0.05 J	27.59	0.02
M	ARSENIC	3.8	MG/KG	3.9	2.60	0.10
M	BERYLLIUM	1	MG/KG	1.1	9.52	0.10
M	CADMIUM	0.2	MG/KG	0.25	22.22	0.05
M	CHROMIUM	19.4	MG/KG	19.5	0.51	0.10
M	COPPER	12.3	MG/KG	23.7	63.33	11.40
M	LEAD	9	MG/KG	9.2	2.20	0.20
M	MERCURY	0.031 J	MG/KG	0.023 J	29.63	0.01
M	NICKEL	14.1	MG/KG	14.3	1.41	0.20
M	SELENIUM	0.71	MG/KG	0.73	2.78	0.02
M	SILVER	0.043 J	MG/KG	0.047 J	8.89	0.00
M	THALLIUM	0.12	MG/KG	0.12	0.00	0.00
M	ZINC	47.4	MG/KG	49	3.32	1.60

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

MIDDLE RIVER CENTER
SEDIMENT DATA
C0H200635

FRACTION	CHEMICAL	SD-96-01	UNITS	SD-DUP5-01	RPD	D
M	ANTIMONY	0.61	MG/KG	1	48.45	0.39
M	ARSENIC	7.5	MG/KG	9	18.18	1.50
M	BERYLLIUM	1.8	MG/KG	2.3	24.39	0.50
M	CADMIUM	14.9	MG/KG	17.7	17.18	2.80
M	CHROMIUM	276	MG/KG	333	18.72	57.00
M	COPPER	121	MG/KG	106	13.22	15.00
M	LEAD	148	MG/KG	184	21.69	36.00
M	MERCURY	0.9	MG/KG	0.86	4.55	0.04
M	NICKEL	39.4	MG/KG	46.7	16.96	7.30
M	SELENIUM	1.8	MG/KG	2.1	15.38	0.30
M	SILVER	6.3	MG/KG	7.3	14.71	1.00
M	THALLIUM	0.28	MG/KG	0.34	19.35	0.06
M	ZINC	377	MG/KG	430	13.14	53.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

L5X2W/10 9/5/2010 12:04:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	78.083%	2.968	5.059	6.023	0.000	1607.000	2020.000	2008.000
2	12:06:14	78.537%	2.676	6.823	5.999	0.000	1478.000	2029.000	2017.000
3	12:06:57	78.948%	2.631	5.865	6.030	0.000	1598.000	2029.000	2008.000
x		78.522%	2.758	5.916	6.017	0.000	1561.000	2026.000	2011.000
σ		0.433%	0.183	0.883	0.017	0.000	71.960	5.317	5.367
%RSD		0.551	6.646	14.920	0.276	0.000	4.609	0.262	0.267
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	6666.000	297.600	0.000	1332.000	1020.000	1061.000	81.982%	130.600
2	12:06:14	6635.000	300.600	0.000	1325.000	1046.000	1108.000	80.048%	130.800
3	12:06:57	6550.000	302.000	0.000	1327.000	1078.000	1123.000	78.224%	132.400
x		6617.000	300.100	0.000	1328.000	1048.000	1097.000	80.085%	131.300
σ		60.210	2.258	0.000	3.595	28.740	32.010	1.879%	0.967
%RSD		0.910	0.752	0.000	0.271	2.743	2.917	2.347	0.737
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	72.980	49.980	228.700	30050.000	30090.000	33.320	95.580	29.690
2	12:06:14	73.940	50.070	229.900	30060.000	30100.000	32.920	97.250	29.990
3	12:06:57	75.110	50.190	232.600	30780.000	30650.000	33.720	97.630	30.330
x		74.010	50.080	230.400	30300.000	30280.000	33.320	96.820	30.000
σ		1.067	0.106	2.015	420.200	320.000	0.403	1.093	0.321
%RSD		1.441	0.212	0.874	1.387	1.057	1.210	1.129	1.068
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	29.610	4369.000	4334.000	31.250	0.414	1.672	0.000	14.040
2	12:06:14	29.940	4402.000	4359.000	31.110	0.249	1.087	0.000	13.960
3	12:06:57	30.040	4468.000	4434.000	30.910	0.058	1.876	0.000	13.890
x		29.860	4413.000	4376.000	31.090	0.240	1.545	0.000	13.960
σ		0.224	50.590	52.340	0.172	0.178	0.410	0.000	0.074
%RSD		0.751	1.146	1.196	0.552	74.090	26.520	0.000	0.532
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	106.140%	20.430	20.960	86.395%	0.568	0.573	4.912	4.838
2	12:06:14	105.063%	21.210	23.350	84.114%	0.622	0.536	4.750	4.927
3	12:06:57	104.056%	22.470	23.800	84.322%	0.601	0.595	4.771	5.000
x		105.086%	21.370	22.700	84.944%	0.597	0.568	4.811	4.922
σ		1.042%	1.031	1.528	1.261%	0.027	0.030	0.088	0.081
%RSD		0.992	4.825	6.729	1.485	4.527	5.221	1.834	1.647
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:05:31	88.460%	2.065	0.788	0.817	22.400	22.410	94.984%	95.614%
2	12:06:14	86.880%	2.075	0.761	0.761	22.800	22.920	94.219%	95.125%
3	12:06:57	86.636%	1.985	0.730	0.755	22.770	22.500	93.311%	94.545%
x		87.326%	2.042	0.760	0.777	22.660	22.610	94.171%	95.095%
σ		0.990%	0.050	0.029	0.034	0.226	0.275	0.838%	0.535%
%RSD		1.134	2.426	3.774	4.360	0.996	1.218	0.889	0.563
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:05:31	15.930	15.830	23.830	23.350	23.470	117.001%		
2	12:06:14	17.750	17.580	26.930	26.250	26.330	104.231%		
3	12:06:57	18.310	18.510	27.860	27.590	27.810	98.664%		
x		17.330	17.310	26.210	25.730	25.870	106.632%		
σ		1.246	1.364	2.110	2.167	2.207	9.402%		
%RSD		7.193	7.882	8.049	8.423	8.531	8.817		

$$\frac{4413\,ug}{L} \times \frac{0.1\,L}{2g} \times \frac{1000g}{1Kg} \times \frac{1mg}{1000ug} \times DF\,(\text{5x on Form I dilution}) \times \frac{1}{0.51\%S} = 4326.4\,mg/Kg$$

reported as 4370 mg/Kg

SD-88-02 Zinc

High			5.0000			10.000	50.000
Low			-.01000			-.00500	-.50000
Elem	SN	SR	TI	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.05788	.29976	.41448	.00476	.29812	H5.0292	
SDev	.00265	.00076	.00109	.00041	.00020	.0020	
%RSD	4.5850	.25416	.26181	8.5413	.06647	.04055	
#1	.05912	.29889	.41341	.00485	.29803	H5.0269	
#2	.05483	.30007	.41558	.00512	.29799	H5.0308	
#3	.05969	.30032	.41447	.00432	.29835	H5.0299	
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	
High	30.000	10.000	30.000	10.000	50.000	5.0000	
Low	-.10000	-.05000	-.05000	-.01000	-.05000	-.02000	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	30558	--	--	--	--	--	--
SDev	73.16062	--	--	--	--	--	--
%RSD	.2394178	--	--	--	--	--	--
#1	30473	--	--	--	--	--	--
#2	30601	--	--	--	--	--	--
#3	30599	--	--	--	--	--	--

$$5.0292\,\frac{mg}{L} \times \frac{1000\,ug}{1\,mg} \times \frac{0.25L}{10g} \times \frac{1\,mole}{65.36\,gm/wt} \times \frac{1g}{1\times10^{6}ug} \times \frac{1\times10^{6}umole}{1\,mole} \times \frac{1}{0.36\%} = 5.34\,\frac{umole}{g}$$

reported as $6.0\,\frac{umole}{g}$

HOLDTIME

SDG C0H200635

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
AVS	UMOLE	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
SEM	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SEM	UMOLE	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/03/2010	13	2	15
HG	MG/KG	SD-106-02	C0H200635003	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-96-01	C0H200635015	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-04	C0H200635026	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-96-02	C0H200635016	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-01	C0H200635002	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-96-04	C0H200635017	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-01	C0H200635010	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-02	C0H200635011	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-106-04	C0H200635004	NM	08/18/2010	08/31/2010	08/31/2010	13	0	13
HG	MG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-04	C0H200635008	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-04	C0H200635030	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-01	C0H200635006	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-100-02	C0H200635007	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
HG	MG/KG	SD-98-04	C0H200635013	NM	08/19/2010	08/31/2010	08/31/2010	12	0	12
M	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-04	C0H200635017	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-DUP5-01	C0H200635024	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-DUP4-02	C0H200635012	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-04	C0H200635030	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-01	C0H200635006	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-02	C0H200635007	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-04	C0H200635008	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-100-SS	C0H200635005	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-106-01	C0H200635002	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-106-02	C0H200635003	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-106-04	C0H200635004	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-106-SS	C0H200635001	NM	08/18/2010	09/01/2010	09/02/2010	14	1	15
M	MG/KG	SD-98-01	C0H200635010	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-SS	C0H200635009	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-02	C0H200635016	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-04	C0H200635013	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-98-02	C0H200635011	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-96-SS	C0H200635014	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-04	C0H200635021	NM	08/19/2010	09/01/2010	09/05/2010	13	4	17
M	MG/KG	SD-96-01	C0H200635015	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-04	C0H200635026	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
TOC	MG/KG	SD-99-02	C0H200635029	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TOC	MG/KG	SD-99-01	C0H200635028	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
TOC	MG/KG	SD-89-SS	C0H200635022	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-88-01	C0H200635019	NM	08/19/2010	08/23/2010	08/24/2010	4	1	5
TOC	MG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
TOC	MG/KG	SD-99-SS	C0H200635027	NM	08/19/2010	08/23/2010	08/31/2010	4	8	12
SIM	UG/KG	SD-88-02	C0H200635020	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-02	C0H200635025	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-02	C0H200635025	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-01	C0H200635023	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-01	C0H200635023	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-SS	C0H200635018	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-SS	C0H200635018	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-04	C0H200635021	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-88-02	C0H200635020	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-89-SS	C0H200635022	SUR	08/19/2010	08/25/2010	08/26/2010	6	1	7

C0H200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154238
Address: 20251 Century Blvd, Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 1 of 3
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact:		
Project Name and Location (State): MRC Sed. Samp. Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PP Metals	PAHs	PCBs	Special Instructions/ Conditions of Receipt
SD-106-SS	8/18/10	1601			X		X						X	X	X	
SD-106-01	↓	1603			↓		↓						X	X	X	
SD-106-02	↓	1605			↓		↓						X	X	X	
SD-106-04	8/18/10	1607			↓		↓						X	X	X	
SD-100-SS	8/19/10	0847			↓		↓						X	X	X	
SD-100-01	↓	0849			↓		↓						X	X	X	
SD-100-02	↓	0851			↓		↓						X	X	X	
SD-100-04	↓	0853			↓		↓						X	X	X	
SD-98-SS	↓	1003			↓		↓						X	X	X	
SD-98-01	↓	1005			↓		↓						X	X	X	
SD-98-02	↓	1007			↓		↓						X	X	X	
SD-DUP4-02	8/19/10	1200			X		X						X	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/19/10	1530	1. Received By: [signature]	8/19/10	1530
2. Relinquished By: Paul Gaufrand	8/19/10	1620	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/20/10	10am

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1-389)

C0H200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date:	Chain of Custody Number: 141296
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301 528 3022 301 528 3000	Lab Number:	Page 2 of 3
City: Germantown; State: MD; Zip Code:	Site Contact: Tony Apanowage; Lab Contact:		
Project Name and Location (State): MRC Sediment Sampling Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): PP Metals + Hg	PAH	PCB	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-98-04	8/19/10	1009			X		X						X	X	X			
SD-96-SS	↓	1053			↓		↓						X	X	X			
SD-96-01		1055											X	X	X			
SD-96-02		1057											X	X	X			
SD-96-04		1059											X	X	X			
SD-88-SS		1129											X	X	X	X	X	
SD-88-01		1131											X	X	X	X	X	
SD-88-02		1133											X	X	X	X	X	
SD-88-04		1135											X	X	X	[illegible]	X	
SD-89-SS		1225											X	X	X	X	X	
SD-89-01	↓	1227			↓		↓						X	X	X	X	X	
SD-DUP5-01	8/19/10	1615			X		X						X	X	X			

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other STANDARD

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/19/10	1530	1. Received By: [signature]	8/19/10	1530
2. Relinquished By: [signature]	8/19/10	1620	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/20/10	10:00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1-389)

COH200635

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike Martin		154237
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 3 of 3**
20251 Century Blvd suite 200	301-528-3022 · 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Apanewicz		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Samp. Middle River MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis: PP Metals	PAHs	PCBs	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-89-02	8/19/10	1229			X		X						X	X	X	X	X	
SD-89-04		1231											X	X	X		X	
SD-99-SS		1435											X	X	X	X	X	
SD-99-01		1437											X	X	X	X	X	
SD-99-02		1439											X	X	X	X	X	
SD-99-04	8/19/10	1441			X		X						X	X	X		X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/19/10	1530	1. Received By	8/19/10	1530
2. Relinquished By	8/19/10	1620	2. Received By		
3. Relinquished By			3. Received By	8/20/10	1033

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1-389)

Test America Pittsburgh
- 10 -
METHOD DETECTION LIMITS

Client: TETRA TECH

SDG No.: C0H200635

Analyte	Mass	MDL ug/L	CRQL ug/L
ICPMS	MDL Date:	6/6/2009	
Antimony	121	0.026	2
Arsenic	75	0.18	1
Beryllium	9	0.075	1
Cadmium	111	0.070	1
Chromium	52	0.06	2
Copper	65	0.33	2
Lead	208	0.038	1
Nickel	60	0.1	1
Selenium	82	0.50	5
Silver	107	0.04	1
Thallium	205	0.020	1
Zinc	66	0.65	5

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Cadmium	226.502	5.0	0.16	10/18/2006
Chromium	267.716	5.0	0.44	10/18/2006
Copper	324.753	25.0	2.2	10/18/2006
Lead	220.353	3.0	2.0	10/18/2006
Nickel	231.604	40.0	1.2	10/18/2006
Silver	328.068	5.0	0.58	10/18/2006
Zinc	213.856	20.0	7.4	10/18/2006

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Mercury	253.700	0.2	0.011	3/23/2009

TestAmerica Pittsburgh

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPST **Date of IEC's:** 4/20/2010

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(-0.000318)
Aluminum	308.215	Pb(0.000477)
Chromium	267.716	As(-0.00295), Sb(0.012594)
Chromium	267.716	Sb(0.009364)
Cobalt	228.616	Se(-0.000299)
Cobalt	228.616	Cd(-0.000084), Fe(0.090141), Ni(-0.000508), Pb(-0.000654), Se(0.000533), Tl(0.003584)
Iron	271.441	Pb(0.000042), Sb(0.000025), Se(-0.000293)
Iron	271.441	Cd(0.000107), Cr(-0.000009), Na(-0.011761), Pb(0.000091), Sb(0.000019), Tl(-0.000132), V(-0.000294), Zn(0.000085)
Magnesium	279.078	Fe(-0.00036)
Manganese	257.61	Se(0.000325)
Manganese	257.61	Se(0.000488), Tl(0.000898)
Molybdenum	202.03	Pb(-0.000822), Sb(-0.009931)
Molybdenum	202.03	Al(0.010528), As(-0.001414), Pb(-0.000516), Sb(-0.001395), Tl(-0.006809)
Nickel	231.604	Pb(0.00024)
Nickel	231.604	Pb(0.000123), Sb(-0.001038), Zn(0.004394)
Tin	189.989	Sb(-0.00526)
Titanium	334.941	Co(0.002053), Pb(0.000261), Sb(0.001182), Tl(0.000666)
Titanium	334.941	Pb(-0.000607)
Vanadium	292.402	Be(-1093), Cr(-0.00011), Fe(0.007572), Pb(-0.000432)
Vanadium	292.402	Al(0.017382), Sb(-0.008105), Se(0.00025), Tl(0.002337)

Test America Pittsburgh

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LINEAR RANGES

Client: TETRA TECH **SDG No.:** C0H200635

Contract: **Lab Code:** STL Pitt **Case No.:** **SAS No.:**

Instrument ID: ICPMS **Date:** 8/8/2010

Analyte	LDR ug/L
Antimony	20000
Arsenic	4500
Beryllium	9000
Cadmium	13500
Chromium	13500
Copper	20000
Lead	20000
Nickel	13500
Selenium	4500
Silver	2500
Thallium	13500
Zinc	20000

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Cadmium	226.50	5000	7/21/2010
Chromium	267.72	20000	7/21/2010
Copper	324.75	10000	7/21/2010
Lead	220.35	5000	7/21/2010
Nickel	231.60	100000	7/21/2010
Silver	328.07	2000	7/21/2010
Zinc	213.86	5000	7/21/2010

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	6/28/2010

TestAmerica Pittsburgh ~~Metals~~ Mercury Preparation Log

Batch No. 0243016

WAH 8-31-10

v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time --0445-0645	SDG -
Analyst william hoyle	Date -08-31-10	Lot Numbers	
MS Hg Working CAL		C0H200635	
Lab Lot # -MET4504-10			
Analyst Sign: William C. Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5X10	1.20g	100ml	
L5X11			
L5X12			
L5X13			
L5X15			WAH 8-31-10
L5X16			
L5X17			
L5X18			
L5X19			
L5X1V			
L5X1V S			1ml MET4504-10
L5X1V D			↓
L5X2A			
L5X2C			
L5X2D			
L5X2E			
L5X2F			
L5X2H			WAH 8-31-10
L5X2J			
L5X2M			
L5X2P			
L5X2T			
L6AX2 B	1.20g DI H2O		
L6AX2 C	100ml	↓	MET4515-10
			WAH 8-31-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4341-10, Stnds. Log
6.0ml Clear. Sol., MET4342-10, Stnds. Log
Stannous Chloride, MET 4179-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#3 95°C	IR30 -1.6°C
WAH	8-31-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 8-31-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 31-Aug-10 9:22:56 AM

TestAmerica Pittsburgh — Mercury Metals Preparation Log

Batch No. 0243020 | Page 1 of 1

WAH 8-31-10 v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time -0445-0645	SDG -
Analyst william hoyle	Date -08-31-10	Lot Numbers	
MS Hg Working CAL		C0H200635	
Lab Lot # -MET4504-10			
Analyst Sign: William C Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5X20	1.20g	100ml	WAH 8-31-10
L5X20 S			1ml MET4504-10
L5X20 D			"
L5X21			
L5X24			
L5X26			
L5X29			
L5X2W			WAH 8-31-10
L5X3A			
L5X3D			
L5X3F			
L5X3G			
L6A0A B	1.20g DI H2O		
L6A0A C	100ml		MET4516-10
			WAH 8-31-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis

Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
- 5.0ml KMnO4, MET4450-10, Stnds. Log
- 8.0ml K2S2O4, MET4341-10, Stnds. Log
- 6.0ml Clear. Sol., MET4342-10, Stnds. Log
- Stannous Chloride, MET 4179-10, Stnds. Log
- 2.0ml HNO3, J11045, Mallinckrodt
- 5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#3 95°C	IR81 -1.0°C
WAH	8-31-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 8-31-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 31-Aug-10 9:23:36 AM

TestAmerica Pittsburgh — Mercury Metals Preparation Log

Batch No. 0243021 — Page 1 of 1

WAH 8-31-10 v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time 0445-0645	SDG -
Analyst william hoyle	Date -08-31-10	Lot Numbers	
MS Hg Working CAL		C0H260531, C0H260541, C0H260588, C0H270419	
Lab Lot # -MET4504-10			
Analyst Sign: William C Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L566N	0.6g	100ml	
L56R8	↓	↓	WAH 8-31-10
L56RE			
L57LX			
L57LX S			1ml MET 4504-10
L57LX D	↓		↓
L6A0D B	0.6g DI H2O		WAH 8-31-10
L6A0D C	100ml	↓	MET 4517-10
			WAH 8-31-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis

Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
- 5.0ml KMnO4, MET4450-10, Stnds. Log
- 8.0ml K2S2O4, MET4341-10, Stnds. Log
- 6.0ml Clear. Sol., MET4342-10, Stnds. Log
- Stannous Chloride, MET 4179-10, Stnds. Log
- 2.0ml HNO3, J11045, Mallinckrodt
- 5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#3 95°C	#P31 -1.0°C
WAH	8-31-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 8-31-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 31-Aug-10 9:24:17 AM

TestAmerica Pittsburgh — Mercury ~~Metals~~ Preparation Log — Batch No. 0243022 — Page 1 of 1

WAH 8-31-10 — v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Waste TCLP	Start Time -0445-0645	SDG -
Analyst william hoyle	Date -08-31-10	Lot Numbers	
MS Hg Working CAL		C0H250542, C0H260580, C0H260584, C0H260586, C0H260589, C0H260590	
Lab Lot # -MET4504-10			
Analyst Sign: William a Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L547W	0.6ml	100ml	
L5646	↓	↓	
L566A			
L566F			WAH 8-31-10
L566T			
L566X	↓		
L6A0F B	0.6ml DIH2O		
L6A0F C	100ml		MET 4518-10
L6A0F L	↓	↓	↓ 4519-10
			WAH 8-31-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4341-10, Stnds. Log
6.0ml Clear. Sol., MET4342-10, Stnds. Log
Stannous Chloride, MET 4179-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#4 95°C	ID#33 -1.0°C
WAH	8-31-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 8-31-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 31-Aug-10 9:24:48 AM

TestAmerica [illegible]sburgh

Mercury Digestion Log v2 8/11/08

Method(s) 7471A

Logbook ID: MT355

Digestion Start Time: 04:45 | Digestion End Time: 06:45 | Filter Paper Manufacturer / Lot#: K11592821A WHATMAN | Balance ID: P1856707

	Sample ID	Batch	Date Received	Prep Date	Prepared by	Wt/ Volume	Sample Type	Run Date	Comments
1.	STD0	N/A	N/A	8-31-10	WAH	100ml	WATER	8-31-10	N/A
2.	STD1								MET4507-10
3.	STD2								4508-10
4.	STD3								4509-10
5.	STD4								4510-10
6.	STD5								4511-10
7.	ICV								4512-10
8.	ICB								N/A
9.	CRA/RLV								MET4513-10
10.	CCV								4514-10
11.	CCB								N/A
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.					WAH	8-31-10			
20.									
21.									
22.									
23.									
24.									
25.									

Reagents	Volume (mL)	Reference Number
HNO3	2.0ml	MALLINCKRODT J11045
H2SO4	5.0ml	J04F08
KMNO4	5.0ml	MET4450-10
K2S2O4	8.0ml	4341-10
NaCL NH2OH Additional volumes indicated per sample as necessary	6.0ml	4342-10
Stannous Chloride	N/A	4179-10

Hot Block Number: #1 IF29 CF -10°C

Hot Block Temperature: 95°C

Waterbath temperature: —

Thermometer ID: —

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
				WAH	8-31-10					

printed on: 28-Jun-10 6:32:17 AM

*-Sample required filtration step after digestion

C0H200635 4189 (3001 - 4198)

TestAmerica Pittsburgh *Metals Preparation Log*

Batch No. 0244174

v1.0.5 - Last Revised 12/30/2005

Method 6020 Soil	**Matrix** Solid	**Start Time** 1130	**SDG** -
Analyst Caitlyn Haluck	**Date** 9/1/10	**Lot Numbers**	
MS TAPITT-MS-C, TAPITT-MS-ICPMS		C0H200635	
Lab Lot # -met4267-10, met2846-10			
Analyst Sign: Caitlyn Haluck			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5X20	2.0g	100mL	
L5X21			
L5X24			
L5X26			CH 9.1.10
L5X29			
L5X2W			
L5X2W S			+1.0mL MS-C, MS-ICP
L5X2W D			
L5X3A			
L5X3D			
L5X3F			CH 9.1.10
L5X3G			
L6D8Q B	2.0g chips		
L6D8Q C			+1.0mL MS-C, MS-ICP
			CH 9.1.10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5 ml Optima Conc HNO3, 6901 J08N59, JT Baker
10 ml 1:1 Optima HNO3, MET 4487-10, Stds. Log
10ml Opt. Conc. HCl, V078 J02N57, Mallinckrodt
10 ml 30% H2O2, 3408 H47A18, Mallinckrodt

Minimum digestion times have been met (analyst initials): CH

Hot Plate/Block Temp	Correction Factor
#10/94°C	±0.0°C

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
all above	9.1.10		1315	CH	PREP	9.1.10		1450	CH	A4
All Above	9-2-10		1250	LWC	A4	9-2-10		1500	LWC	A4
All above	9-5-10		0905	LWC	A4	9-5-10		1450	LWC	A4

	Lot Number	Manufacturer
Initial Digestion Vessel:	1005282	Environmental Express
Final Digestion Vessel:	100504	Corning
Filter Paper:	K11597490	Whatman

Pipet #: 03F95602
Balance #: P1856710
Printed on: 01-Sep-10 11:50:12 AM

Reviewed By: [illegible] **Date:** 9-[illegible]

TestAmerica Pittsburgh *Metals Preparation Log*

Batch No. 0244130 Page 1 of 1

v1.0.5 - Last Revised 12/30/2005

Method 6020 Soil	**Matrix** Solid	**Start Time** 0920	**SDG** -
Analyst Caitlyn Haluck	**Date** 9/1/10	**Lot Numbers**	
MS TAPITT-MS-C, TAPITT-MS-ICPMS		C0H200635	
Lab Lot # -met4267-10, met2846-10			
Analyst Sign: Caitlyn Haluck			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5X10	2.0g	100mL	
L5X11			
L5X12			
L5X13			
L5X15			CH 9.1.10
L5X16			
L5X17			
L5X18			
L5X19			
L5X1V			
L5X1V S			+1.0mL MS-C, MS ICP
L5X1V D			
L5X2A			
L5X2C			
L5X2D			
L5X2E			
L5X2F			
L5X2H			
L5X2J			
L5X2M			CH 9.1.10
L5X2P			
L5X2T			
L6D15 B	2.0g chips		
L6D15 C			+1.0mL MS-C, MS ICP
			CH 9.1.10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents: 5 ml Optima Conc HNO3, 6901 J08N59, JT Baker
10 ml 1:1 Optima HNO3, MET 4487-10, Stds. Log
10ml Opt. Conc. HCl, V078 J02N57, Mallinckrodt
10 ml 30% H2O2, 3408 H47A18, Mallinckrodt

Minimum digestion times have been met (analyst initials): CH

Hot Plate/Block Temp	Correction Factor
#10/94°C	±0.0°C

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
all above	9.1.10		1315	CH	Prep	9.1.10		1450	CH	AA
All Above	9/2/10		1250	WK	AA	9/2/10		1500	WK	AA

	Lot Number	Manufacturer
Initial Digestion Vessel:	1005282	Environmental Express
Final Digestion Vessel:	100504	Corning
Filter Paper:	K11597490	Whatman

Pipet #: 03F95602
Balance #: P1856710
Printed on: 01-Sep-10 12:49:20 PM

TestAmerica Pittsburgh | ***Sulfide AVS/SEM Distillation Worksheet*** | **Batch No:** 0244072

Method Sulfide AVS/SEM	**Matrix** Solid	**Lot Numbers** C0H200440, C0H200635, C0H210447
Start Time 07:50	**Stop Time** 08:50	
Start Temp. 20.8	**Stop Temp.** 21.4	
Analyst Dennis Baker	**Date** 09/01/2010	
Analyst Sign: D Baker		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N) [1]	Comments
L6DWC1AA B	10.07	250		NA	Glass Beads WC 7168-10
L6DWC1AC C					" " +2.5ml 2145-10
L6DWC1AD L					" " +" " " "
L50XR1A4					
L50XT1AF					
L50XW1AF					
L50XX1AF					
L5WL31CH					
L5WLT1CH					
L5WML1CH					
L5X201AR					
L5X211AX					
L5X261A4					
L5X291A3					
L5X2M1A4					
L5X2P1AF					
L5X2T1AL					
L5X2W1A3					
L5X3A1A4					
L5X3D1AF					
L5X3F1AL					
L5X3G1AE					
	DB		DB 9-1-10		DB 9-1-10
		9-1-10			

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Sulfide Stock, Std 2717-09, Standards Log
Sulfide LCS, WC 4324-10, Standards Log
Zinc Acetate, Std 1911-10, StandardsLog
Sulfide CCV, WC 4325-10, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	25606
Pipet #:	H30608
LCS True Value:	2.9944 umoles
LCS StdsLogID:	WC 4324-10
MS/MSD Conc.:	2.9944 umoles
MS/MSD StdsLogID:	WC 4324-10
Glass or Plastic Beads:	Standard ID

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
All Above	9-1-10	1030	DB	W-C	9-1-10	1030	DB	METALS
All Above	09.01.10	1100	ACC	E2	09.07.10	1011	ACC	E3

Additional Comments:

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0H310000-016 **Prep Batch #...:** 0243016						
Mercury	ND	0.016	mg/kg	SW846 7471A	08/31/10	L6AX21AA
		Dilution Factor: 0.5				
		Analysis Time..: 08:24	Analyst ID.....: 031043		Instrument ID..: HGH	
MB Lot-Sample #: C0H310000-020 **Prep Batch #...:** 0243020						
Mercury	ND	0.016	mg/kg	SW846 7471A	08/31/10	L6A0A1AA
		Dilution Factor: 0.5				
		Analysis Time..: 09:12	Analyst ID.....: 031043		Instrument ID..: HGH	
MB Lot-Sample #: C0I010000-083 **Prep Batch #...:** 0244083						
Chromium	ND	0.0024	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AA
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Silver	ND	0.0012	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AC
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Cadmium	ND	0.0011	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AD
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Copper	ND	0.0098	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AE
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Nickel	ND	0.017	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AF
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Lead	ND	0.00072	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AG
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	
Zinc	**0.0068 B**	**0.038**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L6DWT1AH**
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938		Instrument ID..: TRA	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0T010000-130 **Prep Batch #...:** 0244130						
Antimony	**0.0056 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L6D151AK**
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AC
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AD
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AE
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.016 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L6D151AF**
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	09/01-09/02/10	L6D151AG
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AJ
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AH
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D151AL
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AA
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D151AM
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D151AN
		Dilution Factor: 0.5				
		Analysis Time..: 14:24		Analyst ID.....: 400149	Instrument ID..: ICP	

MB Lot-Sample #: C0I010000-174 **Prep Batch #...:** 0244174

Antimony	ND	0.10	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AK
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AC
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AD
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AE
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.026 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L6D8Q1AF**
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AG
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AJ
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AH
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AL
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AA
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AM
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D8Q1AN
		Dilution Factor: 0.5				
		Analysis Time..: 16:47		Analyst ID.....: 400149	Instrument ID..: ICP	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	97	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	97	(80 - 120)	0.41	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Silver	94	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	92	(80 - 120)	1.8	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Cadmium	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	96	(80 - 120)	1.7	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Copper	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	98	(80 - 120)	0.38	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Nickel	97	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	97	(80 - 120)	0.30	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Lead	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	99	(80 - 120)	0.42	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Zinc	112	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	106	(80 - 120)	6.0	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0H310000-016 **Prep Batch #...:** 0243016					
Mercury	95	(80 - 120)	SW846 7471A	08/31/10	L6AX21AC
		Dilution Factor: 0.5	Analysis Time..: 08:26	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0H310000-020 **Prep Batch #...:** 0243020					
Mercury	95	(80 - 120)	SW846 7471A	08/31/10	L6A0A1AC
		Dilution Factor: 0.5	Analysis Time..: 09:14	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0I010000-130 **Prep Batch #...:** 0244130					
Silver	101	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AP
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	95	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AQ
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	92	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AR
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	100	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AT
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	101	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AU
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	111	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AV
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Nickel	108	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AW
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	110	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151AX
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	97	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151A0
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Selenium	103	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151A1
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Thallium	107	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151A2
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	112	(80 - 120)	SW846 6020	09/01-09/02/10	L6D151A3
		Dilution Factor: 0.5	Analysis Time..: 14:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

LCS Lot-Sample#: C0I010000-174 **Prep Batch #...:** 0244174

Silver	99	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AP
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	95	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AQ
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	95	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AR
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	98	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AT
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	100	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AU
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	112	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AV
		Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	108	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AW
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				
Lead	106	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1AX
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				
Antimony	96	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1A0
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				
Selenium	90	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1A1
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				
Thallium	102	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1A2
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				
Zinc	111	(80 - 120)	SW846 6020	09/01-09/02/10	L6D8Q1A3
	Dilution Factor: 0.5	Analysis Time..: 16:52	Analyst ID.....: 400149		
	Instrument ID..: ICPMS2				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID
Date Sampled...: 08/18/10 **Date Received..:** 08/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H200635-001 **Prep Batch #...:** 0243016							
						% Moisture.....: 66	
Mercury	120	(75 - 125)			SW846 7471A	08/31/10	L5X1V1AV
	102	(75 - 125)	10	(0-20)	SW846 7471A	08/31/10	L5X1V1AW
		Dilution Factor: 0.5					
		Analysis Time..: 08:29			Instrument ID..: HGHYDRA	Analyst ID.....: 031043	
		MS Run #.....: 0243008					
MS Lot-Sample #: C0H200635-001 **Prep Batch #...:** 0244130							
						% Moisture.....: 66	
Antimony	37 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CG
	35 N	(75 - 125)	6.2	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CH
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Arsenic	62 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1A1
	44 N	(75 - 125)	8.4	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1A2
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Beryllium	74 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1A3
	63 N	(75 - 125)	11	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1A4
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Cadmium	78	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1A5
	71 N	(75 - 125)	8.1	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1A6
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Chromium	77	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1A7
	62 N	(75 - 125)	6.9	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1A8
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID
Date Sampled...: 08/18/10 **Date Received..:** 08/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #.
Copper	67 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1A9
	54 N	(75 - 125)	7.5	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CA
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Lead	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CE
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CF
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Nickel	78	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CC
	70 N	(75 - 125)	7.0	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CD
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Selenium	64 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CJ
	55 N	(75 - 125)	4.9	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CK
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Silver	78	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1AX
	73 N	(75 - 125)	5.9	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1A0
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Thallium	87	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CL
	80	(75 - 125)	7.2	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CM
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					
Zinc	76	(75 - 125)			SW846 6020	09/01-09/02/10	L5X1V1CN
	60 N	(75 - 125)	7.2	(0-20)	SW846 6020	09/01-09/02/10	L5X1V1CP
		Dilution Factor: 0.5					
		Analysis Time..: 14:43			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244081					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H200635-021 **Prep Batch #...:** 0244174							
						% Moisture.....: 49	
Antimony	48 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CN
	52 N	(75 - 125)	8.8	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CP
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Arsenic	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1A7
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L5X2W1A8
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Beryllium	88	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1A9
	92	(75 - 125)	2.3	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CA
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Cadmium	28 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CC
	31 N	(75 - 125)	2.6	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CD
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Chromium	120	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CE
	120	(75 - 125)	0.16	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CF
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Copper	43 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CG
	46 N	(75 - 125)	1.4	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CH
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Lead	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CL
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CM
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	0.0 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CJ
	0.0 N	(75 - 125)	0.0	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CK
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Selenium	0.0 N	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CQ
	0.0 N	(75 - 125)	0.0	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CR
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Silver	89	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1A5
	92	(75 - 125)	2.3	(0-20)	SW846 6020	09/01-09/02/10	L5X2W1A6
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Thallium	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CT
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CU
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					
Zinc	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L5X2W1CV
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L5X2W1CW
		Dilution Factor: 0.5					
		Analysis Time..: 17:07			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244101					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H200635 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H200635-022 **Prep Batch #...:** 0243020							
						% Moisture.....: 71	
Mercury	122	(75 - 125)			SW846 7471A	08/31/10	L5X201A5
	124	(75 - 125)	0.52	(0-20)	SW846 7471A	08/31/10	L5X201A6

Dilution Factor: 0.5
Analysis Time..: 09:19 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0243010

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

Sample List 9610

9/2/10

No	Label	Type	Weight	Rack	Row	Col	Height
1	PERFORMANCE REPORT	Instrument Setup	1.000	1	1	1	155
2	STD1 MET4520-10 INT STD	Blank	1.000	0	1	1	155
3	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
4	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
5	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
6	ICB1	QC Sample	1.000	0	1	9	155
7	CRI MET4062-10	QC Sample	1.000	0	1	6	155
8	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
9	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
10	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
11	CCB1	QC Sample	1.000	0	1	9	155
12	L6D15B	Unknown	1.000	1	1	2	155
13	L6D15C	Unknown	1.000	1	1	3	155
14	L5X1V	Unknown	1.000	1	1	4	155
15	L5X1VP5	Unknown	1.000	1	1	5	155
16	L5X1VS	Unknown	1.000	1	1	6	155
17	L5X1VD	Unknown	1.000	1	1	7	155
18	L5X10	Unknown	1.000	1	1	8	155
19	L5X11	Unknown	1.000	1	1	9	155
20	L5X12	Unknown	1.000	1	1	10	155
21	L5X13	Unknown	1.000	1	1	11	155
22	CCV1-2	QC Sample	1.000	0	1	4	155
23	CCB2	QC Sample	1.000	0	1	9	155
24	L5X15	Unknown	1.000	1	1	12	155
25	L5X16	Unknown	1.000	1	2	1	155
26	L5X17	Unknown	1.000	1	2	2	155
27	L5X18	Unknown	1.000	1	2	3	155
28	L5X19	Unknown	1.000	1	2	4	155
29	L5X2A	Unknown	1.000	1	2	5	155
30	L5X2C	Unknown	1.000	1	2	6	155
31	L5X2D	Unknown	1.000	1	2	7	155
32	L5X2E	Unknown	1.000	1	2	8	155
33	L5X2F	Unknown	1.000	1	2	9	155
34	CCV1-3	QC Sample	1.000	0	1	4	155
35	CCB3	QC Sample	1.000	0	1	9	155
36	L5X2H	Unknown	1.000	1	2	10	155
37	L5X2J	Unknown	1.000	1	2	11	155
38	L5X2M	Unknown	1.000	1	2	12	155
39	L5X2P	Unknown	1.000	1	3	1	155
40	L5X2T	Unknown	1.000	1	3	2	155
41	L6D8QB	Unknown	1.000	1	3	3	155
42	L6D8QC	Unknown	1.000	1	3	4	155
43	L5X2W	Unknown	1.000	1	3	5	155
44	L5X2WP5	Unknown	1.000	1	3	6	155
45	L5X2WS	Unknown	1.000	1	3	7	155
46	CCV1-4	QC Sample	1.000	0	1	4	155
47	CCB4	QC Sample	1.000	0	1	9	155
48	L5X2WD	Unknown	1.000	1	3	8	155
49	L5X20	Unknown	1.000	1	3	9	155
50	L5X21	Unknown	1.000	1	3	10	155
51	L5X24	Unknown	1.000	1	3	11	155
52	L5X26	Unknown	1.000	1	3	12	155
53	L5X29	Unknown	1.000	1	4	1	155
54	L5X3A	Unknown	1.000	1	4	2	155
55	L5X3D	Unknown	1.000	1	4	3	155
56	L5X3F	Unknown	1.000	1	4	4	155
57	L5X3G	Unknown	1.000	1	4	5	155
58	CCV1-5	QC Sample	1.000	0	1	4	155
59	CCB5	QC Sample	1.000	0	1	9	155
60	L6D77B	Unknown	1.000	1	4	6	155
61	L6D77C	Unknown	1.000	1	4	7	155
62	L50XR	Unknown	1.000	1	4	8	155
63	L50XRP5	Unknown	1.000	1	4	9	155
64	L50XRS	Unknown	1.000	1	4	10	155
65	L50XRD	Unknown	1.000	1	4	11	155
66	L50XT	Unknown	1.000	1	4	12	155
67	L50XW	Unknown	1.000	1	5	1	155

68	L50XX	Unknown	1.000	1	5	2	155
69	L50X0	Unknown	1.000	1	5	3	155
70	CCV1-6	QC Sample	1.000	0	1	4	155
71	CCB6	QC Sample	1.000	0	1	9	155
72	L50X1	Unknown	1.000	1	5	4	155
73	L50X2	Unknown	1.000	1	5	5	155
74	L50X3	Unknown	1.000	1	5	6	155
75	L50X4	Unknown	1.000	1	5	7	155
76	L50X5	Unknown	1.000	1	5	8	155
77	L50X6	Unknown	1.000	1	5	9	155
78	L50X7	Unknown	1.000	1	5	10	155
79	L500A	Unknown	1.000	1	5	11	155
80	L500D	Unknown	1.000	1	5	12	155
81	L500E	Unknown	1.000	2	1	1	155
82	CCV1-7	QC Sample	1.000	0	1	4	155
83	CCB7	QC Sample	1.000	0	1	9	155

 COH200635 6020

Sample List 9-7-10

9/5/10 Zn analysis

No	Label	Type	Weight	Rack	Row	Col	Height
1	STD1 MET4520-10 INT STD	Blank	1.000	0	1	1	155
2	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
3	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
4	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
5	ICB1	QC Sample	1.000	0	1	9	155
6	CRI MET4062-10	QC Sample	1.000	0	1	6	155
7	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
8	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
9	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
10	CCB1	QC Sample	1.000	0	1	9	155
11	L5X2W/10	Unknown	1.000	1	1	2	155
12	L5X2WP50	Unknown	1.000	1	1	3	155
13	L50X4/100	Unknown	1.000	1	1	4	155
14	L50X5	Unknown	1.000	1	1	5	155
15	L50X6	Unknown	1.000	1	1	6	155
16	L6FJVB	Unknown	1.000	1	1	7	155
17	L6FJVC	Unknown	1.000	1	1	8	155
18	L5N14	Unknown	1.000	1	1	9	155
19	L5N14P5	Unknown	1.000	1	1	10	155
20	L5N14S	Unknown	1.000	1	1	11	155
21	CCV1-2	QC Sample	1.000	0	1	4	155
22	CCB2	QC Sample	1.000	0	1	9	155
23	L5N14D	Unknown	1.000	1	1	12	155
24	L537V	Unknown	1.000	1	2	1	155
25	L537W	Unknown	1.000	1	2	2	155
26	L5370	Unknown	1.000	1	2	3	155
27	L5371	Unknown	1.000	1	2	4	155
28	L5372	Unknown	1.000	1	2	5	155
29	L5374	Unknown	1.000	1	2	6	155
30	L5376	Unknown	1.000	1	2	7	155
31	L5377	Unknown	1.000	1	2	8	155
32	L6A4QCF	Unknown	1.000	1	2	9	155
33	CCV1-3	QC Sample	1.000	0	1	4	155
34	CCB3	QC Sample	1.000	0	1	9	155
35	L6A4QBF	Unknown	1.000	1	2	10	155
36	L5436F	Unknown	1.000	1	2	11	155
37	L5436P5F	Unknown	1.000	1	2	12	155
38	L5436SF	Unknown	1.000	1	3	1	155
39	L5436DF	Unknown	1.000	2	4	5	155
40	L544HF	Unknown	1.000	1	3	2	155
41	L544LF	Unknown	1.000	1	3	3	155
42	L545NF	Unknown	1.000	1	3	4	155
43	L545QF	Unknown	1.000	1	3	5	155
44	L5740F	Unknown	1.000	1	3	6	155
45	CCV1-4	QC Sample	1.000	0	1	4	155
46	CCB4	QC Sample	1.000	0	1	9	155
47	L5742F	Unknown	1.000	1	3	7	155
48	L5746F	Unknown	1.000	1	3	8	155
49	L5747F	Unknown	1.000	1	3	9	155
50	L5748F	Unknown	1.000	1	3	10	155
51	L575AF	Unknown	1.000	1	3	11	155
52	L575CF	Unknown	1.000	1	3	12	155
53	L575DF	Unknown	1.000	1	4	1	155
54	L575EF	Unknown	1.000	1	4	2	155
55	L575FF	Unknown	1.000	1	4	3	155
56	L575HF	Unknown	1.000	1	4	4	155
57	CCV1-5	QC Sample	1.000	0	1	4	155
58	CCB5	QC Sample	1.000	0	1	9	155
59	L575KF	Unknown	1.000	1	4	5	155
60	L58C0F	Unknown	1.000	1	4	6	155
61	L58C1F	Unknown	1.000	1	4	7	155
62	L6D4DB	Unknown	1.000	1	4	8	155
63	L6D4DC	Unknown	1.000	1	4	9	155
64	L5436	Unknown	1.000	1	4	10	155
65	L5436P5	Unknown	1.000	1	4	11	155
66	L5436S	Unknown	1.000	1	4	12	155
67	L5436D	Unknown	1.000	1	5	1	155

68	L544L	Unknown	1.000	1	5	2	155
69	CCV1-6	QC Sample	1.000	0	1	4	155
70	CCB6	QC Sample	1.000	0	1	9	155
71	L545N	Unknown	1.000	1	5	3	155
72	L545Q	Unknown	1.000	1	5	4	155
73	L59J3	Unknown	1.000	1	5	5	155
74	L6FJEBF	Unknown	1.000	1	5	6	155
75	L6FJECF	Unknown	1.000	1	5	7	155
76	L502QF	Unknown	1.000	1	5	8	155
77	L502RF	Unknown	1.000	1	5	9	155
78	L502TF	Unknown	1.000	1	5	10	155
79	L502VF	Unknown	1.000	1	5	11	155
80	L502WF	Unknown	1.000	1	5	12	155
81	CCV1-7	QC Sample	1.000	0	1	4	155
82	CCB7	QC Sample	1.000	0	1	9	155
83	L502XF	Unknown	1.000	2	1	1	155
84	L502XP5F	Unknown	1.000	2	1	2	155
85	L502XSF	Unknown	1.000	2	1	3	155
86	L502XDF	Unknown	1.000	2	1	4	155
87	L6FTWB	Unknown	1.000	2	1	5	155
88	L6FTWC	Unknown	1.000	2	1	6	155
89	L5020	Unknown	1.000	2	1	7	155
90	L5021	Unknown	1.000	2	1	8	155
91	L5022	Unknown	1.000	2	1	9	155
92	L5023	Unknown	1.000	2	1	10	155
93	CCV1-8	QC Sample	1.000	0	1	4	155
94	CCB8	QC Sample	1.000	0	1	9	155
95	L5024	Unknown	1.000	2	1	11	155
96	L5024P5	Unknown	1.000	2	1	12	155
97	L5024S	Unknown	1.000	2	2	1	155
98	L5024D	Unknown	1.000	2	2	2	155
99	L5026	Unknown	1.000	2	2	3	155
100	L5027	Unknown	1.000	2	2	4	155
101	L6E4Q	Unknown	1.000	2	2	5	155
102	L6E4V	Unknown	1.000	2	2	6	155
103	L6D2VB	Unknown	1.000	2	2	7	155
104	L6D2VC	Unknown	1.000	2	2	8	155
105	CCV1-9	QC Sample	1.000	0	1	4	155
106	CCB9	QC Sample	1.000	0	1	9	155
107	L5740	Unknown	1.000	2	2	9	155
108	L5740P5	Unknown	1.000	2	2	10	155
109	L5740S	Unknown	1.000	2	2	11	155
110	L5740D	Unknown	1.000	2	2	12	155
111	L5742	Unknown	1.000	2	3	1	155
112	L5746	Unknown	1.000	2	3	2	155
113	L5747	Unknown	1.000	2	3	3	155
114	L5748	Unknown	1.000	2	3	4	155
115	L575A	Unknown	1.000	2	3	5	155
116	L575C	Unknown	1.000	2	3	6	155
117	CCV1-10	QC Sample	1.000	0	1	4	155
118	CCB10	QC Sample	1.000	0	1	9	155
119	L575D	Unknown	1.000	2	3	7	155
120	L575E	Unknown	1.000	2	3	8	155
121	L575F	Unknown	1.000	2	3	9	155
122	L575H	Unknown	1.000	2	3	10	155
123	L575K	Unknown	1.000	2	3	11	155
124	L6FHXB	Unknown	1.000	2	4	6	155
125	L6FHXC	Unknown	1.000	2	4	7	155
126	L502Q	Unknown	1.000	2	4	8	155
127	L502R	Unknown	1.000	2	4	9	155
128	L502T	Unknown	1.000	2	4	10	155
129	CCV1-11	QC Sample	1.000	0	1	4	155
130	CCB11	QC Sample	1.000	0	1	9	155
131	L502V	Unknown	1.000	2	4	11	155
132	L502W	Unknown	1.000	2	4	12	155
133	L502X	Unknown	1.000	2	5	1	155
134	L502XP5	Unknown	1.000	2	5	2	155
135	L502XS	Unknown	1.000	2	5	3	155
136	L502XD	Unknown	1.000	2	5	4	155
137	L5029	Unknown	1.000	2	5	5	155

Test America Pittsburgh

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ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0H200635

ICP-MS Instrument ID: ICPMS Date: 9/2/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be_9	9.08218	0.75000	1.7550
Mg_24	23.955041	0.65000	0.6580
Mg_25	24.93583	0.63000	0.6710
Mg_26	25.93259	0.63000	1.0950
Co_59	58.903189	0.71000	0.2160
In_113	112.954404	0.73000	1.0640
In_115	114.95387	0.75000	0.1280
Ce_140	139.975441	0.73000	0.1610
Pb_206	206.024457	0.65000	0.8150
Pb_207	207.025876	0.65000	0.7500
Pb_208	208.026639	0.65000	0.4670

Comments:

Test America Pittsburgh

14 - IN

ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0H200635

ICP-MS Instrument ID: ICPMS Date: 9/5/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be 9	9.06218	0.73000	2.3900
Mg 24	23.955041	0.61000	1.1730
Mg 25	24.93583	0.61000	2.3330
Mg 26	25.93259	0.61000	2.3400
Co 59	58.903189	0.69000	1.0720
In 113	112.974404	0.73000	1.7580
In 115	114.97387	0.73000	0.8100
Ce 140	139.995441	0.75000	0.1430
Pb 206	206.044457	0.65000	0.5200
Pb 207	207.045876	0.67000	0.5420
Pb 208	208.046639	0.67000	0.4160

Comments:

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H200635

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			**ICV1 MET4061-10**						
	Antimony	0.0800	0.0800	100.0	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Arsenic	0.0804	0.0800	100.5	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Beryllium	0.0807	0.0800	100.9	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Cadmium	0.0782	0.0800	97.7	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Chromium	0.0793	0.0800	99.1	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Copper	0.0815	0.0800	101.9	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Lead	0.0811	0.0800	101.4	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Nickel	0.0802	0.0800	100.2	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Selenium	0.0811	0.0800	101.4	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Silver	0.0781	0.0800	97.6	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Thallium	0.0836	0.0800	104.5	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Zinc	0.0826	0.0800	103.2	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
CCV1			**CCV1-1 MET4282-10**						
	Antimony	0.0964	0.1000	96.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Arsenic	0.1003	0.1000	100.3	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Beryllium	0.1004	0.1000	100.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Cadmium	0.0984	0.1000	98.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Chromium	0.0974	0.1000	97.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Copper	0.1021	0.1000	102.1	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Lead	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Nickel	0.1012	0.1000	101.2	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Selenium	0.1005	0.1000	100.5	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Silver	0.0987	0.1000	98.7	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Thallium	0.1035	0.1000	103.5	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Zinc	0.1047	0.1000	104.7	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H200635

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0952	0.1000	95.2	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Arsenic	0.1005	0.1000	100.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Beryllium	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Cadmium	0.0985	0.1000	98.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Chromium	0.0961	0.1000	96.1	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Copper	0.1027	0.1000	102.7	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Lead	0.1061	0.1000	106.1	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Nickel	0.1022	0.1000	102.2	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Selenium	0.1000	0.1000	100.0	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Thallium	0.1055	0.1000	105.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Zinc	0.1069	0.1000	106.9	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
CCV3			CCV1-3						
	Antimony	0.0950	0.1000	95.0	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Arsenic	0.0999	0.1000	99.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Beryllium	0.0966	0.1000	96.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Cadmium	0.0984	0.1000	98.4	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Chromium	0.0966	0.1000	96.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Copper	0.1025	0.1000	102.5	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Lead	0.1023	0.1000	102.3	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Nickel	0.1019	0.1000	101.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Selenium	0.0999	0.1000	99.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Thallium	0.1018	0.1000	101.8	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Zinc	0.1076	0.1000	107.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H200635

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4			**CCV1-4**						
	Antimony	0.0954	0.1000	95.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Arsenic	0.1008	0.1000	100.8	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Beryllium	0.0978	0.1000	97.8	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Cadmium	0.0970	0.1000	97.0	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Chromium	0.0971	0.1000	97.1	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Copper	0.1033	0.1000	103.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Lead	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Nickel	0.1027	0.1000	102.7	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Selenium	0.1003	0.1000	100.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Silver	0.0974	0.1000	97.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Thallium	0.1033	0.1000	103.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Zinc	0.1074	0.1000	107.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
CCV5			**CCV1-5**						
	Antimony	0.0950	0.1000	95.0	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Arsenic	0.1008	0.1000	100.8	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Beryllium	0.0963	0.1000	96.3	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Cadmium	0.0977	0.1000	97.7	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Chromium	0.0972	0.1000	97.2	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Copper	0.1045	0.1000	104.5	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Lead	0.1035	0.1000	103.5	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Nickel	0.1042	0.1000	104.2	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Selenium	0.0997	0.1000	99.7	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Silver	0.0970	0.1000	97.0	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Thallium	0.1028	0.1000	102.8	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Zinc	0.1079	0.1000	107.9	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
ICV1			**ICV1 MET4061-10**						
	Zinc	0.0823	0.0800	102.9	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
CCV1			**CCV1-1 MET4282-10**						
	Zinc	0.1043	0.1000	104.3	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
CCV2			**CCV1-2**						
	Zinc	0.1045	0.1000	104.5	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen

Test America Pittsburgh
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CRDL STANDARD FOR AA & ICP

Client: TETRA TECH **SDG No.:** C0H200635

ICPMS Standard Source: HIPUR

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
CRDL1			CRI MET4062-10						
	Antimony	0.00210	0.00200	105.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Arsenic	0.00111	0.00100	111.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Beryllium	0.00109	0.00100	109.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Cadmium	0.00106	0.00100	106.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Chromium	0.00203	0.00200	101.5	50 - 150	MS	9/2/2010	13:54	M00902A,
	Copper	0.00195	0.00200	97.5	50 - 150	MS	9/2/2010	13:54	M00902A,
	Lead	0.00104	0.00100	104.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Nickel	0.00104	0.00100	104.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Selenium	0.00511	0.00500	102.2	50 - 150	MS	9/2/2010	13:54	M00902A,
	Silver	0.00106	0.00100	106.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Thallium	0.00111	0.00100	111.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Zinc	0.00634	0.00500	126.8	50 - 150	MS	9/2/2010	13:54	M00902A,
CRDL1			CRI MET4062-10						
	Zinc	0.00496	0.00500	99.2	50 - 150	MS	9/5/2010	11:37	M00905A,

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H200635

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
ICB1			ICB1							
	Antimony	0.00000	+/-0.00200	U	0.00003	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Arsenic	0.00006	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Beryllium	-0.00002	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Cadmium	0.00000	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Chromium	-0.00001	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Copper	-0.00031	+/-0.00200	U	0.00033	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Selenium	0.00036	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	13:49	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Thallium	0.00000	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Zinc	-0.00018	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	13:49	M00902A, ge
CCB1			CCB1							
	Antimony	0.00026	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Arsenic	0.00000	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Chromium	0.00000	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Copper	-0.00040	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Nickel	-0.00001	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Selenium	0.00025	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	14:17	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Zinc	-0.00019	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	14:17	M00902A, ge

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H200635

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.00024	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Arsenic	0.00003	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Cadmium	-0.00008	+/-0.00100	J	0.00007	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Copper	-0.00042	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Lead	-0.00004	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Selenium	0.00022	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	15:22	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Zinc	-0.00016	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	15:22	M00902A, ge
CCB3			CCB3							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Arsenic	0.00005	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Beryllium	-0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Cadmium	0.00001	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Copper	-0.00048	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Nickel	0.00009	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Selenium	0.00035	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	16:19	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Zinc	-0.00015	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	16:19	M00902A, ge

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H200635

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB4			CCB4							
	Antimony	0.00027	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Arsenic	-0.00004	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Chromium	0.00004	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Copper	-0.00053	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Selenium	0.00027	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	17:22	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Thallium	0.00008	+/-0.00100	J	0.00002	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Zinc	0.00001	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	17:22	M00902A, ge
CCB5			CCB5							
	Antimony	0.00024	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Arsenic	0.00000	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Beryllium	-0.00002	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Copper	-0.00047	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Selenium	0.00016	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	18:21	M00902A, ge
	Silver	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Thallium	0.00002	+/-0.00100	J	0.00002	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Zinc	-0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	18:21	M00902A, ge
ICB1			ICB1							
	Zinc	0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	11:33	M00905A, ge
CCB1			CCB1							
	Zinc	0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	12:00	M00905A, ge

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H200635

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Zinc	0.00007	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	13:03	M00905A, ge

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH **SDG No.:** C0H200635

ICS Source: EPA **Instrument ID:** ICPMS

Sample ID Analyte	WL/Mass	Result mg/L	Qual	True Value mg/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4063-10									
Antimony	121Sb	0.00043				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Arsenic	75As	0.00023				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Beryllium	9Be	0.00010				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Cadmium	111Cd	0.00088				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Chromium	52Cr	0.00005				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Copper	65Cu	0.00300				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Lead	208Pb	0.00042				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Nickel	60Ni	0.00118				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Selenium	82Se	0.00028				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Silver	107Ag	0.00024				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Thallium	205Tl	0.00031				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Zinc	66Zn	0.00569				0.0 - 0.0	9/2/2010	13:58	M00902A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02277		0.02000	113.8	80 - 120%	9/2/2010	14:02	M00902A, g
Arsenic	75As	0.02166		0.02000	108.3	80 - 120%	9/2/2010	14:02	M00902A, g
Beryllium	9Be	0.02131		0.02000	106.6	80 - 120%	9/2/2010	14:02	M00902A, g
Cadmium	111Cd	0.02220		0.02000	111.0	80 - 120%	9/2/2010	14:02	M00902A, g
Chromium	52Cr	0.01971		0.02000	98.6	80 - 120%	9/2/2010	14:02	M00902A, g
Copper	65Cu	0.02346		0.02000	117.3	80 - 120%	9/2/2010	14:02	M00902A, g
Lead	208Pb	0.02242		0.02000	112.1	80 - 120%	9/2/2010	14:02	M00902A, g
Nickel	60Ni	0.02149		0.02000	107.4	80 - 120%	9/2/2010	14:02	M00902A, g
Selenium	82Se	0.05186		0.05000	103.7	80 - 120%	9/2/2010	14:02	M00902A, g
Silver	107Ag	0.02152		0.02000	107.6	80 - 120%	9/2/2010	14:02	M00902A, g
Thallium	205Tl	0.02189		0.02000	109.4	80 - 120%	9/2/2010	14:02	M00902A, g
Zinc	66Zn	0.02860		0.02500	114.4	80 - 120%	9/2/2010	14:02	M00902A, g
ICSA MET4063-10									
Zinc	66Zn	0.00486				0.0 - 0.0	9/5/2010	11:41	M00905A, g
ICSAB MET3848-10									
Zinc	66Zn	0.02588		0.02500	103.5	80 - 120%	9/5/2010	11:46	M00905A, g

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H200635

Sample ID: L5X1V **Serial Dilution ID:** SD-106-SSL **Client ID:** SD-106-SSL

Batch Number: 0244130 **Prep Date:** 9/1/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 33.5 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	0.28011	J	9/2/2010 14:35	5	0.20871	J	9/2/2010 14:39	25.5	E	10.00 %
Arsenic	1	9.34705		9/2/2010 14:35	5	9.56321		9/2/2010 14:39	2.3		10.00 %
Beryllium	1	1.85599		9/2/2010 14:35	5	1.70915		9/2/2010 14:39	7.9		10.00 %
Cadmium	1	0.82767		9/2/2010 14:35	5	0.72973	J	9/2/2010 14:39	11.8	E	10.00 %
Chromium	1	44.57364		9/2/2010 14:35	5	47.29428		9/2/2010 14:39	6.1		10.00 %
Copper	1	41.07036		9/2/2010 14:35	5	43.39595		9/2/2010 14:39	5.7		10.00 %
Lead	1	52.78771		9/2/2010 14:35	5	52.20632		9/2/2010 14:39	1.1		10.00 %
Nickel	1	31.09720		9/2/2010 14:35	5	32.47615		9/2/2010 14:39	4.4		10.00 %
Selenium	1	1.68754		9/2/2010 14:35	5	1.75686	J	9/2/2010 14:39	4.1		10.00 %
Silver	1	0.22451		9/2/2010 14:35	5	0.20945	J	9/2/2010 14:39	6.7		10.00 %
Thallium	1	0.29413		9/2/2010 14:35	5	0.29964	J	9/2/2010 14:39	1.9		10.00 %
Zinc	1	122.36140		9/2/2010 14:35	5	131.26120		9/2/2010 14:39	7.3		10.00 %

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H200635

Sample ID: L5X2W **Serial Dilution ID:** SD-88-04L **Client ID:** SD-88-04L

Batch Number: 0244083 **Prep Date:** 9/1/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 50.5 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	0.44548		9/2/2010 16:59	5	0.41658	J	9/2/2010 17:03	6.5		10.00 %
Arsenic	1	35.93905		9/2/2010 16:59	5	36.37938		9/2/2010 17:03	1.2		10.00 %
Beryllium	1	2.48071		9/2/2010 16:59	5	2.38126		9/2/2010 17:03	4.0		10.00 %
Cadmium	1	4.92975		9/2/2010 16:59	5	5.01682		9/2/2010 17:03	1.8		10.00 %
Chromium	1	49.52504		9/2/2010 16:59	5	51.10826		9/2/2010 17:03	3.2		10.00 %
Copper	1	31.65446		9/2/2010 16:59	5	33.00020		9/2/2010 17:03	4.3		10.00 %
Lead	1	31.04097		9/2/2010 16:59	5	30.12072		9/2/2010 17:03	3.0		10.00 %
Nickel	1	102.51340		9/2/2010 16:59	5	106.02610		9/2/2010 17:03	3.4		10.00 %
Selenium	1	1.96715		9/2/2010 16:59	5	2.07600	J	9/2/2010 17:03	5.5		10.00 %
Silver	1	0.55818		9/2/2010 16:59	5	0.56254		9/2/2010 17:03	0.8		10.00 %
Thallium	1	20.30477		9/2/2010 16:59	5	20.02771		9/2/2010 17:03	1.4		10.00 %
Zinc	10	4366.71300		9/5/2010 12:04	50	4692.75700		9/5/2010 12:09	7.5		10.00 %

TestAmerica Pittsburgh

Metals Data Reporting Form

SEM

Instrument Runlog

Instrument: ICPST **Chart Number:** T00902B.ARC

Start Date: 9/2/2010 **End Date:** 9/3/2010

Lab Sample Name	DF	Time of Analysis	Analytes						
			AG	CD	CR	CU	NI	PB	ZN
STD1	1	2:34 PM	X	X	X	X	X		X
STD2	1	2:40 PM	X	X					
STD4	1	2:51 PM			X	X	X		X
ICV1-1	1	2:56 PM	X	X	X	X	X	X	X
ICB	1	3:03 PM	X	X	X	X	X	X	X
CRA/RLV	1	3:09 PM	X	X	X	X	X	X	X
ICSA	1	3:14 PM	X	X	X	X	X	X	X
ICSAB	1	3:20 PM	X	X	X	X	X	X	X
CCV1-1	1	3:25 PM	X	X	X	X	X	X	X
CCB1	1	3:31 PM	X	X	X	X	X	X	X
CCV1-2	1	4:43 PM	X	X	X	X	X	X	X
CCB2	1	4:48 PM	X	X	X	X	X	X	X
CCV1-3	1	5:48 PM	X	X	X	X	X	X	X
CCB3	1	5:54 PM	X	X	X	X	X	X	X
CCV1-4	1	6:54 PM	X	X	X	X	X	X	X
CCB4	1	7:00 PM	X	X	X	X	X	X	X
CCV1-5	1	7:16 PM	X	X	X	X	X	X	X
CCB5	1	7:21 PM	X	X	X	X	X	X	X
CCV1-6	1	8:22 PM	X	X	X	X	X	X	X
CCB6	1	8:27 PM	X	X	X	X	X	X	X
L6DWTB	1	8:55 PM	X	X	X	X	X	X	X
L6DWTC	1	9:00 PM	X	X	X	X	X	X	X
L6DWTL	1	9:06 PM	X	X	X	X	X	X	X
CCV1-7	1	9:28 PM	X	X	X	X	X	X	X
CCB7	1	9:33 PM	X	X	X	X	X	X	X
L5X20	1	10:06 PM	X	X	X	X	X	X	X
L5X21	1	10:12 PM	X	X	X	X	X	X	X
L5X26	1	10:17 PM	X	X	X	X	X	X	X
L5X29	1	10:23 PM	X	X	X	X	X	X	X
L5X2M	1	10:28 PM	X	X	X	X	X	X	X
CCV1-8	1	10:34 PM	X	X	X	X	X	X	X
CCB8	1	10:39 PM	X	X	X	X	X	X	X
L5X2P	1	10:45 PM	X	X	X	X	X	X	X
L5X2T	1	10:50 PM	X	X	X	X	X	X	X
L5X2W	1	10:56 PM	X	X	X	X	X	X	X
L5X3A	1	11:01 PM	X	X	X	X	X	X	X
L5X3D	1	11:07 PM	X	X	X	X	X	X	X
L5X3F	1	11:12 PM	X	X	X	X	X	X	X
L5X3G	1	11:18 PM	X	X	X	X	X	X	X
CCV1-9	1	11:40 PM	X	X	X	X	X	X	X
CCB9	1	11:45 PM	X	X	X	X	X	X	X

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST **Chart Number:** T00902B.ARC

Start Date: 9/2/2010 **End Date:** 9/3/2010

Lab Sample Name	DF	Time of Analysis	Analytes						
			AG	CD	CR	CU	NI	PB	ZN
CCV1-10	1	12:46 AM	X	X	X	X	X	X	X
CCB10	1	12:51 AM	X	X	X	X	X	X	X
CCV1-11	1	1:52 AM	X	X	X	X	X	X	X
CCB11	1	1:57 AM	X	X	X	X	X	X	X
CCV1-12	1	2:58 AM	X	X	X	X	X	X	X
CCB12	1	3:03 AM	X	X	X	X	X	X	X
CCV1-13	1	4:04 AM	X	X	X	X	X	X	X
CCB13	1	4:09 AM	X	X	X	X	X	X	X
CCV1-14	1	5:10 AM	X	X	X	X	X	X	X
CCB14	1	5:16 AM	X	X	X	X	X	X	X
CCV1-15	1	6:16 AM	X	X	X	X	X	X	X
CCB15	1	6:22 AM	X	X	X	X	X	X	X
CCV1-16	1	7:22 AM	X	X	X	X	X	X	X
CCB16	1	7:28 AM	X	X	X	X	X	X	X
CCV1-17	1	7:39 AM	X	X	X	X	X	X	X
CCB17	1	7:44 AM	X	X	X	X	X	X	X
CCV1-18	1	8:45 AM	X	X	X	X	X	X	X
CCB18	1	8:50 AM	X	X	X	X	X	X	X
CCV1-19	1	9:34 AM	X	X	X	X	X	X	X
CCB19	1	9:40 AM	X	X	X	X	X	X	X
CCV1-20	1	10:43 AM	X	X	X	X	X	X	X
CCB20	1	10:49 AM	X	X	X	X	X	X	X

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4165-10

Element	WL/ Mass	True Conc	ICV1-1 9/2/2010 2:56 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	250.0	252.64	**101.1**								
Chromium	267.716	1000.0	1019.09	**101.9**								
Copper	324.753	1000.0	1041.96	**104.2**								
Lead	220.353	250.0	255.51	**102.2**								
Nickel	231.604	1000.0	989.68	**99.0**								
Silver	328.068	500.0	509.04	**101.8**								
Zinc	213.856	1000.0	1034.00	**103.4**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4386-10

Element	WL/ Mass	True Conc	CCV1-1 9/2/2010 3:25 PM X		CCV1-2 9/2/2010 4:43 PM X		CCV1-3 9/2/2010 5:48 PM X		CCV1-4 9/2/2010 6:54 PM X		CCV1-5 9/2/2010 7:16 PM X	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	500.0	493.84	**98.8**	495.89	**99.2**	500.69	**100.1**	495.43	**99.1**	499.78	**100.0**
Chromium	267.716	2000.0	1985.37	**99.3**	1981.52	**99.1**	2000.03	**100.0**	1978.31	**98.9**	1994.45	**99.7**
Copper	324.753	2000.0	2053.11	**102.7**	2049.52	**102.5**	2067.05	**103.4**	2038.18	**101.9**	2055.76	**102.8**
Lead	220.353	500.0	498.52	**99.7**	497.70	**99.5**	502.03	**100.4**	496.72	**99.3**	499.29	**99.9**
Nickel	231.604	2000.0	1974.87	**98.7**	1976.43	**98.8**	1996.56	**99.8**	1973.33	**98.7**	1989.39	**99.5**
Silver	328.068	1000.0	1021.69	**102.2**	1022.04	**102.2**	1028.43	**102.8**	1011.69	**101.2**	1019.09	**101.9**
Zinc	213.856	2000.0	2050.88	**102.5**	2033.06	**101.7**	2044.79	**102.2**	2012.98	**100.6**	2026.92	**101.3**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4386-10

Element	WL/ Mass	True Conc	CCV1-6 9/2/2010 8:22 PM X		CCV1-7 9/2/2010 9:28 PM		CCV1-8 9/2/2010 10:34 PM		CCV1-9 9/2/2010 11:40 PM		CCV1-10 9/3/2010 12:46 AM X	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	500.0	492.14	**98.4**	496.91	**99.4**	496.42	**99.3**	512.80	**102.6**	506.44	**101.3**
Chromium	267.716	2000.0	1969.71	**98.5**	1985.38	**99.3**	1994.70	**99.7**	2063.94	**103.2**	2050.65	**102.5**
Copper	324.753	2000.0	2041.34	**102.1**	2048.73	**102.4**	2052.26	**102.6**	2103.46	**105.2**	2093.76	**104.7**
Lead	220.353	500.0	492.66	**98.5**	500.51	**100.1**	501.72	**100.3**	518.68	**103.7**	513.13	**102.6**
Nickel	231.604	2000.0	1958.03	**97.9**	1975.41	**98.8**	1975.34	**98.8**	2036.08	**101.8**	2015.79	**100.8**
Silver	328.068	1000.0	1004.72	**100.5**	1003.13	**100.3**	993.19	**99.3**	1008.12	**100.8**	995.89	**99.6**
Zinc	213.856	2000.0	1998.05	**99.9**	2008.10	**100.4**	2018.26	**100.9**	2098.49	**104.9**	2090.48	**104.5**

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4384-10

Element	WL/ Mass	True Conc	CRA/RLV 9/2/2010 3:09 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	5.0	5.06	**101.2**								
Chromium	267.716	5.0	5.05	**101.0**								
Copper	324.753	25.0	24.81	**99.2**								
Lead	220.353	3.0	1.74	**58.0**								
Nickel	231.604	40.0	40.83	**102.1**								
Silver	328.068	5.0	4.88	**97.6**								
Zinc	213.856	20.0	22.52	**112.6**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 9/2/2010 3:03 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	**0.2**	**B**								
Chromium	267.716	5	0.4	U								
Copper	324.753	25	2.2	U								
Lead	220.353	3	2.0	U								
Nickel	231.604	40	1.2	U								
Silver	328.068	5	0.6	U								
Zinc	213.856	20	**16.1**	**B**								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 9/2/2010 8:27 PM X		CCB7 9/2/2010 9:33 PM		CCB8 9/2/2010 10:39 PM		CCB9 9/2/2010 11:45 PM		CCB10 9/3/2010 12:51 AM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Chromium	267.716	5	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Copper	324.753	25	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Lead	220.353	3	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Nickel	231.604	40	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Silver	328.068	5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Zinc	213.856	20	7.4	U	7.4	U	7.4	U	7.4	U	**16.6**	**B**

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET3683-10

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 9/2/2010 3:14 PM Found	Found	Found	Found	Found
Cadmium	226.502	5		2				
Chromium	267.716	5		0				
Copper	324.753	25		1				
Lead	220.353	3		3				
Nickel	231.604	40		3				
Silver	328.068	5		0				
Zinc	213.856	20		6				

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET1004-10

Element	WL/ Mass	True Conc	ICSAB 9/2/2010 3:20 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	1000	945.6	**94.6**								
Chromium	267.716	500	488.9	**97.8**								
Copper	324.753	500	549.1	**109.8**								
Lead	220.353	1000	976.2	**97.6**								
Nickel	231.604	1000	946.8	**94.7**								
Silver	328.068	1000	1083.0	**108.3**								
Zinc	213.856	1000	1038.6	**103.9**								

NC Percent recovery was not calculated
U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

William a Hoyle 8-31-10

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: ICV6-1 Seq: 8 08:15:46 31 Aug 10 HG

Hg 2.65 ppb 14479 MET45-12-10

*** Sample ID: ICB1 Seq: 9 08:17:33 31 Aug 10 HG

Hg -.015 ppb 112

*** Sample ID: CRA/RLV Seq: 10 08:19:30 31 Aug 10 HG

Hg .192 ppb 1231 MET4513-10

*** Sample ID: CCV6-1 Seq: 11 08:21:09 31 Aug 10 HG

Hg 4.98 ppb 27058 MET4514-10

*** Sample ID: CCB1 Seq: 12 08:22:56 31 Aug 10 HG

Hg -.018 ppb 100

*** Sample ID: L6AX2B Seq: 13 08:24:33 31 Aug 10 HG

Hg -.020 ppb 87

*** Sample ID: L6AX2C Seq: 14 08:26:22 31 Aug 10 HG

Hg 2.37 ppb 12956 MET4515-10

*** Sample ID: L5X1V Seq: 15 08:27:58 31 Aug 10 HG

Hg .687 ppb 3897

*** Sample ID: L5X1VS Seq: 16 08:29:45 31 Aug 10 HG SP.REC. 120%

Hg 1.89 ppb 10402

*** Sample ID: L5X1VD Seq: 17 08:31:33 31 Aug 10 HG SP.REC. 102%

Hg 1.71 ppb 9398

*** Sample ID: L5X10 Seq: 18 08:33:13 31 Aug 10 HG

Hg .226 ppb 1415

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L5X11 Seq: 19 08:34:55 31 Aug 10 HG

Hg .171 ppb 1116

*** Sample ID: L5X12 Seq: 20 08:36:35 31 Aug 10 HG

Hg .145 ppb 978

*** Sample ID: L5X13 Seq: 21 08:38:12 31 Aug 10 HG

Hg 1.17 ppb 6511

*** Sample ID: L5X15 Seq: 22 08:39:54 31 Aug 10 HG

Hg .353 ppb 2097

*** Sample ID: CCV6-2 Seq: 23 08:41:31 31 Aug 10 HG

Hg 4.97 ppb 27004

*** Sample ID: CCB2 Seq: 24 08:43:08 31 Aug 10 HG

Hg -.025 ppb 59

*** Sample ID: L5X16 Seq: 25 08:44:45 31 Aug 10 HG

Hg .174 ppb 1133

*** Sample ID: L5X17 Seq: 26 08:46:25 31 Aug 10 HG

Hg .116 ppb 821

*** Sample ID: L5X18 Seq: 27 08:48:27 31 Aug 10 HG

Hg 1.93 ppb 10586

*** Sample ID: L5X19 Seq: 28 08:50:04 31 Aug 10 HG

Hg 3.74 ppb 20353

*** Sample ID: L5X2A Seq: 29 08:51:44 31 Aug 10 HG

Hg 4.10 ppb 22321

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L5X2C Seq: 30 08:53:21 31 Aug 10 HG

Hg .142 ppb 961

*** Sample ID: L5X2D Seq: 31 08:54:58 31 Aug 10 HG

Hg 2.80 ppb 15284

*** Sample ID: L5X2E Seq: 32 08:56:36 31 Aug 10 HG

Hg 1.47 ppb 8136

*** Sample ID: L5X2F Seq: 33 08:58:28 31 Aug 10 HG

Hg 3.38 ppb 18442

*** Sample ID: L5X2H Seq: 34 09:00:27 31 Aug 10 HG

Hg 8.03 ppb 43466

*** Sample ID: CCV6-3 Seq: 35 09:02:36 31 Aug 10 HG

Hg 4.99 ppb 27094

*** Sample ID: CCB3 Seq: 36 09:04:13 31 Aug 10 HG

Hg -.022 ppb 74

*** Sample ID: L5X2J Seq: 37 09:05:51 31 Aug 10 HG

Hg .750 ppb 4237

*** Sample ID: L5X2M Seq: 38 09:07:30 31 Aug 10 HG

Hg 4.07 ppb 22122

*** Sample ID: L5X2P Seq: 39 09:09:08 31 Aug 10 HG

Hg 3.90 ppb 21244

*** Sample ID: L5X2T Seq: 40 09:10:46 31 Aug 10 HG

Hg 8.56 ppb 46324

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L6A0AB Seq: 41 09:12:26 31 Aug 10 HG

Hg -.036 ppb .2

*** Sample ID: L6A0AC Seq: 42 09:14:07 31 Aug 10 HG

Hg 2.38 ppb 13046 MET 4516-10

*** Sample ID: L5X2W Seq: 43 09:15:54 31 Aug 10 HG

Hg .344 ppb 2050

*** Sample ID: L5X20 Seq: 44 09:17:41 31 Aug 10 HG

Hg 2.61 ppb 14278

*** Sample ID: L5X20S Seq: 45 09:19:19 31 Aug 10 HG SP. REC, 122%

Hg 3.83 ppb 20829

*** Sample ID: L5X20D Seq: 46 09:21:00 31 Aug 10 HG SP. REC. 124%

Hg 3.85 ppb 20925

*** Sample ID: CCV6-4 Seq: 47 09:22:38 31 Aug 10 HG

Hg 5.03 ppb 27304

*** Sample ID: CCB4 Seq: 48 09:24:20 31 Aug 10 HG

Hg -.022 ppb 76

*** Sample ID: L5X21 Seq: 49 09:26:00 31 Aug 10 HG

Hg 3.52 ppb 19175

*** Sample ID: L5X24 Seq: 50 09:27:41 31 Aug 10 HG

Hg 3.33 ppb 18140

*** Sample ID: L5X26 Seq: 51 09:29:24 31 Aug 10 HG

Hg 9.98 ppb 54007

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L5X29 Seq: 52 09:31:02 31 Aug 10 HG

Hg .708 ppb 4011

*** Sample ID: L5X3A Seq: 53 09:32:49 31 Aug 10 HG

Hg .179 ppb 1162

*** Sample ID: L5X3D Seq: 54 09:34:28 31 Aug 10 HG

Hg .171 ppb 1116

*** Sample ID: L5X3F Seq: 55 09:36:26 31 Aug 10 HG

Hg .169 ppb 1108

*** Sample ID: L5X3G Seq: 56 09:38:03 31 Aug 10 HG

Hg .157 ppb 1042

*** Sample ID: L6A0DB Seq: 57 09:39:43 31 Aug 10 HG

Hg -.009 ppb 144

*** Sample ID: L6A0DC Seq: 58 09:41:20 31 Aug 10 HG

Hg 2.43 ppb 13286 MET4517-10

*** Sample ID: CCV6-5 Seq: 59 09:42:58 31 Aug 10 HG

Hg 5.08 ppb 27578

*** Sample ID: CCB5 Seq: 60 09:44:40 31 Aug 10 HG

Hg -.010 ppb 142

*** Sample ID: L56RE Seq: 61 09:46:23 31 Aug 10 HG

Hg .074 ppb 595

*** Sample ID: L56R8 Seq: 62 09:48:23 31 Aug 10 HG

Hg 4.52 ppb 24536

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L566N Seq: 63 09:50:24 31 Aug 10 HG

Hg .184 ppb 1184

*** Sample ID: L57LX Seq: 64 09:52:17 31 Aug 10 HG

Hg .134 ppb 915

*** Sample ID: L57LXS Seq: 65 09:53:56 31 Aug 10 HG SP. REC. 98%

Hg 1.11 ppb 6173

*** Sample ID: L57LXD Seq: 66 09:55:58 31 Aug 10 HG SP. REC 101%

Hg 1.14 ppb 6354

*** Sample ID: L6A0FBT Seq: 67 09:57:37 31 Aug 10 HG

Hg -.019 ppb 90

*** Sample ID: L6A0FCT Seq: 68 09:59:15 31 Aug 10 HG

Hg 2.40 ppb 13133 MET4518-10

*** Sample ID: L6A0FLT Seq: 69 10:01:33 31 Aug 10 HG

Hg 2.50 ppb 13668 MET4519-10

*** Sample ID: L547WT Seq: 70 10:03:20 31 Aug 10 HG

Hg -.015 ppb 116

*** Sample ID: CCV6-6 Seq: 71 10:04:58 31 Aug 10 HG

Hg 5.03 ppb 27301

*** Sample ID: CCB6 Seq: 72 10:06:49 31 Aug 10 HG

Hg -.023 ppb 69

*** Sample ID: L5646T Seq: 73 10:08:42 31 Aug 10 HG

Hg -.008 ppb 149

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: L566AT Seq: 74 10:10:56 31 Aug 10 HG

Hg -.016 ppb 109

*** Sample ID: L566FT Seq: 75 10:12:40 31 Aug 10 HG

Hg -.011 ppb 137

*** Sample ID: L566TT Seq: 76 10:14:22 31 Aug 10 HG

Hg -.008 ppb 152

*** Sample ID: L566XT Seq: 77 10:16:02 31 Aug 10 HG

Hg .012 ppb 258

*** Sample ID: CCV6-7 Seq: 78 10:17:42 31 Aug 10 HG

Hg 5.01 ppb 27228

*** Sample ID: CCB7 Seq: 79 10:19:22 31 Aug 10 HG

Hg -.024 ppb 66

END OF ANALYSIS

GWAN
8-31-10

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00831A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4512-10

Element	WL/ Mass	True Conc	ICV6-1 8/31/2010 8:15 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.65	**106.0**								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00831A.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4514-10

Element	WL/ Mass	True Conc	CCV6-1 8/31/2010 8:21 AM Found	% Rec	CCV6-2 8/31/2010 8:41 AM Found	% Rec	CCV6-3 8/31/2010 9:02 AM Found	% Rec	CCV6-4 8/31/2010 9:22 AM Found	% Rec	CCV6-5 8/31/2010 9:42 AM Found	% Rec
Mercury	253.7	5.0	4.98	**99.6**	4.97	**99.4**	4.99	**99.8**	5.03	**100.6**	5.08	**101.6**

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00831A.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4513-10

Element	WL/ Mass	True Conc	CRA/RLV 8/31/2010 8:19 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.19	**96.0**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00831A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 8/31/2010 8:17 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	**0.0**	**B**								

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00831A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 8/31/2010 8:22 AM Found	Q	CCB2 8/31/2010 8:43 AM Found	Q	CCB3 8/31/2010 9:04 AM Found	Q	CCB4 8/31/2010 9:24 AM Found	Q	CCB5 8/31/2010 9:44 AM Found	Q
Mercury	253.7	0.2	**0.0**	**B**	**0.0**	**B**	**0.0**	**B**	**0.0**	**B**	0.0	U

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

Tetra Tech Middle River, MD

Ratio for SEM/AVS

Lab Name: TESTAMERICA PITTSBURGH
Lot Number: C0H200635
Client Name: Tetra Tech NUS, Inc
Date Received: 8/20/10
Matrix: SOLID

Client Sample ID	Sample Number	Ratio
SD-88-SS	018	1.6970
SD-88-01	019	0.6466
SD-88-02	020	1.4400
SD-88-04	021	NA
SD-89-SS	022	0.4561
SD-89-01	023	1.1500
SD-89-02	025	7.6351
SD-89-04	026	NA
SD-99-SS	027	NA
SD-99-01	028	NA
SD-99-02	029	NA
SD-99-04	030	0.1055

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Acid Volatile Sulfide

Method: AVS

Analyst: bakerd
Date: 9/1/2010
Start Time: 2:11 pm
Batch: 0244072
Location: Pittsburgh

Stock Std. ID#: WC 4324-10 Prep: 08/31/2010 Balance ID#: 25606
CCV Std. ID#: WC 4325-10 Exp: 09/07/2010 True Value: 960

LCS 1 mL of 960 ppm (ID#: WC 4324-10)= 2.9944 umoles Range:_+/-15%
CCV 1 mL of 960 ppm (ID#: WC 4325-10)= 19.2 ppm Range:_+/-10%

Calculations:

$$\text{Sulfide mg/L} = \frac{[(\text{mL of Iodine} * \text{N Iodine}) - (\text{mL of } Na_2S_2O_3 \text{ X N } Na_2S_2O_3)] * 16000}{\text{mL of Sample}}$$

Iodine Standardization ID#: WC 3765-10

$$0.025 \quad \text{N Iodine} = \frac{(20 \text{ mL } Na_2S_2O_3)(0.025 \text{ N of } Na_2S_2O_3)}{20.0 \text{ mL of Iodine Solution}}$$

Relative Percent Difference:

X1 = Original Result
X2 = Duplicate

$$\left(\frac{X1 - X2}{\frac{X1 + X2}{2}} \right) \times 100$$

Sodium Thiosulfate Standardization

ID#: WC 1912-10 Avg.= 0.025

Titration	mLs	Normality
1	10	.025
2	10	.025

$$\frac{(10 \text{ mL of } KH(IO_3)^2)(0.025N \text{ } KH(IO_3)^2)}{\text{mL of } Na_2S_2O_3}$$

True Value LCS/ICV: 2.9944 umoles
True Value MS/MSD: 2.9944 umoles
True Value CCV: 19.2 ppm

SampleID	Sample mL	Iodine mL	$Na_2S_2O_3$ mL	Sulfide mg/kg	AVS umol/g*	LDL	%Rec	RPD
ICV	50.00	10.00	7.62	19.00		3.00	99.00	
ICB	50.00	10.00	10.19	0.00		3.00		
C0I010000-72B	10.00	10.00	10.11	0.00	0.00	0.50		
C0I010000-72C	10.00	10.00	7.74	90.40	2.82	0.50	94.00	
C0I010000-72L	10.00	10.00	7.76	89.60	2.79	0.50	93.00	0.89
C0H200440-1	10.00	10.00	9.30	28.00	0.87	0.50		
C0H200440-5	10.00	10.00	10.12	0.00	0.00	0.50		
C0H200440-12	10.00	20.00	2.07	717.20	22.37	0.50		
C0H200635-18	10.00	10.00	9.19	32.40	1.01	0.50		
C0H200635-19	10.00	10.00	7.80	88.00	2.74	0.50		
C0H200635-20	10.00	10.00	8.57	57.20	1.78	0.50		
C0H200635-21	10.00	10.00	10.05	0.00	0.00	0.50		
CCV1	50.00	10.00	7.64	18.90		3.00	98.00	
CCB1	50.00	10.00	10.09	0.00		3.00		
C0H200635-22	10.00	10.00	7.25	110.00	3.43	0.50		
C0H200635-23	10.00	10.00	8.86	45.60	1.42	0.50		
C0H200635-25	10.00	10.00	9.80	8.00	0.25	0.50		
C0H200635-26	10.00	10.00	10.08	0.00	0.00	0.50		
C0H200635-27	10.00	10.00	10.08	0.00	0.00	0.50		
C0H200635-28	10.00	10.00	9.89	4.40	0.14	0.50		
C0H200635-29	10.00	10.00	10.08	0.00	0.00	0.50		
C0H200635-30	10.00	10.00	8.09	76.40	2.38	0.50		
C0H210447-1	10.00	10.00	9.10	36.00	1.12	0.50		
C0H210447-2	10.00	10.00	9.97	1.20	0.04	0.50		
CCV2	50.00	10.00	7.61	19.10		3.00	100.00	
CCB2	50.00	10.00	10.07	0.00		3.00		
C0H210447-3	10.00	10.00	10.12	0.00	0.00	0.50		
C0H210447-4	10.00	10.00	9.95	2.00	0.06	0.50		

* umol/g AVS concentration value is obtained by dividing the Sulfide mg/kg result by 32.066 (molecular weight of Sulfur)

SampleID	Sample mL	Iodine mL	$Na_2S_2O_3$ mL	Sulfide mg/kg	AVS umol/g*	LDL	%Rec	RPD
CCV3	50.00	10.00	7.63	19.00		3.00	99.00	✓
CCB3	50.00	10.00	10.09	0.00		3.00		

Analyst: D Butler Date: 9-1-10

* umol/g AVS concentration value is obtained by dividing the Sulfide mg/kg result by 32.066 (molecular weight of Sulfur)

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H200635
Matrix:	SOLID	**Date/Time Received:**	8/20/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0I010000072B	072 MB	L6DWC1AA	ND	umoles/g	0.50	9/1/2010 - 9/1/2010 14:11	0244072	

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0I010000
Date/Time Received: 8/20/2010 10:00:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6DWC1AC	94	85 - 115	9/1/2010 - 9/1/2010 14:11	0244072	0.89 / 20
DUPLICATE CHECK	LCSD	L6DWC1AD	93	85 - 115	9/1/2010 - 9/1/2010 14:11	0244072	0.89 / 20

	A	B	C	D	E	I	J	K	L	M
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12	Sample	Data File	Date	Time	Weight	Conc. %	Avg Conc. mg/kg	RPD %	Higher Weight	Dilution Factor
13	CCB	083010003	08/30/2010	11:51	1	0.0000				
14	CCV	083010004	08/30/2010	11:58	100	0.9931				
15	L55M91AA	083010005	08/30/2010	12:06	43	0.0000	5179.50	-200.0000	43	0.4651
16	L55M91AC	083010006	08/30/2010	12:13	43	1.0359				
17	L55M91AD	083010007	08/30/2010	12:20	43	1.1482	8192.50	80.3052	43	0.4651
18	L5N1D1C1	083010008	08/30/2010	12:27	43	0.4903				
19	L5N1N1CC	083010009	08/30/2010	12:35	43	0.1917	2599.00	-52.4817	43	0.4651
20	L5N1T1CC	083010010	08/30/2010	12:42	43	0.3281				
21	L5N1V1CE	083010011	08/30/2010	12:49	43	0.3508	2585.50	78.0950	43	0.4651
22	L5N101CC	083010012	08/30/2010	12:56	43	0.1563				
23	L5N131CE	083010013	08/30/2010	13:04	43	0.1372	1730.50	-41.4331	43	0.4651
24	L5VA41C0	083010014	08/30/2010	13:11	43	0.2089				
25	L5VA71C0	083010015	08/30/2010	13:18	43	0.1682	1332.00	52.5526	43	0.4651
26	L5VCE1CW	083010016	08/30/2010	13:25	43	0.0982				
27	L55NC1AA	083010017	08/30/2010	13:33	10	0.0000	10996.50	-200.0000	10	2.0000
28	L55NC1AC	083010018	08/30/2010	13:40	9.7	2.1993				
29	L55NC1AD	083010019	08/30/2010	13:47	9.8	2.1608	22510.50	-8.0185	10.4	1.9231
30	L5N141CC	083010020	08/30/2010	13:54	10.4	2.3413				
31	RINSE	083010021	08/30/2010	14:02	1	0.0000				
32	RINSE	083010022	08/30/2010	14:09	1	0.0000				
33	CCB	083010023	08/30/2010	14:16	20	0.0000				
34	CCV	083010024	08/30/2010	14:23	100	0.9719				
35	L523A1AA	083010025	08/30/2010	14:31	10	0.0000	0.00	0.0000	10	2.0000
36	L523A1AA	083010026	08/30/2010	14:38	10	0.0000				
37	L523A1AC	083010027	08/30/2010	14:45	10.1	1.9917	19446.00	4.8442	10.1	1.9802
38	L523A1AC	083010028	08/30/2010	14:52	9.9	1.8975				
39	L523A1AD	083010029	08/30/2010	15:00	10.1	1.9820	20220.50	-3.9613	10.1	1.9802
40	L523A1AD	083010030	08/30/2010	15:07	10.1	2.0621				
41	L5WLT1A6	083010031	08/30/2010	15:14	5.8	4.8439	47222.00	5.1544	5.8	3.4483
42	L5WLT1A6	083010032	08/30/2010	15:21	4.3	4.6005				
43	L5WLX1A6	083010033	08/30/2010	15:29	4.1	3.3726	37898.00	-22.0170	6	3.3333
44	L5WLX1A6	083010034	08/30/2010	15:36	6	4.2070				
45	L5WL01A6	083010035	08/30/2010	15:43	4.8	2.0614	21802.00	-10.8981	5.6	3.5714
46	L5WL01A6	083010036	08/30/2010	15:50	5.6	2.2990				
47	L5WL21AH	083010037	08/30/2010	15:58	6.1	2.2707	15771.00	87.9589	6.1	3.2787
48	L5WL21AH	083010038	08/30/2010	16:05	5.8	0.8835				
49	L5WL31AH	083010039	08/30/2010	16:12	6.1	3.9658	40065.00	-2.0317	6.1	3.2787
50	L5WL31AH	083010040	08/30/2010	16:19	5.7	4.0472				
51	L5WL61AH	083010041	08/30/2010	16:27	4.6	4.0326	50069.50	-38.9199	4.7	4.2553
52	L5WL61AH	083010042	08/30/2010	16:34	4.7	5.9813				
53	RINSE	083010043	08/30/2010	16:41	1	0.0000				
54	RINSE	083010044	08/30/2010	16:48	1	0.0000				
55	CCB	083010045	08/30/2010	16:56	20	0.0000				
56	CCV	083010046	08/30/2010	17:03	100	0.9864				
57	L5WL81AT	083010047	08/30/2010	17:10	4.4	5.0073	50786.00	-2.8079	5.7	3.5088
58	L5WL81AT	083010048	08/30/2010	17:17	5.7	5.1499				
59	L5WMC1A4	083010049	08/30/2010	17:24	4.5	4.3552	42808.00	3.4760	5.2	3.8462
60	L5WMC1A4	083010050	08/30/2010	17:32	5.2	4.2064				
61	L5WMD1AF	083010051	08/30/2010	17:39	4	5.1351	52271.00	-3.5201	5.5	3.6364
62	L5WMD1AF	083010052	08/30/2010	17:46	5.5	5.3191				
63	L5WMF1AQ	083010053	08/30/2010	17:53	4.9	5.7894	54757.50	11.4560	5.1	3.9216
64	L5WMF1AQ	083010054	08/30/2010	18:01	5.1	5.1621				
65	L5WMH1A2	083010055	08/30/2010	18:08	4.8	1.3940	15149.00	-15.9614	6	3.3333
66	L5WMH1A2	083010056	08/30/2010	18:15	6	1.6358				
67	L5WML1AH	083010057	08/30/2010	18:22	5.1	1.5851	14009.50	26.2893	6.2	3.2258
68	L5WML1AH	083010058	08/30/2010	18:30	6.2	1.2168				

	A	B	C	D	E	I	J	K	L	M
69	L5WMM1A6	083010059	08/30/2010	18:37	4.2	2.1657	24519.50	-23.3488	6.1	3.2787
70	L5WMM1A6	083010060	08/30/2010	18:44	6.1	2.7382				
71	L5WMN1AH	083010061	08/30/2010	18:51	4.4	1.7418	15851.00	19.7716	5.6	3.5714
72	L5WMN1AH	083010062	08/30/2010	18:59	5.6	1.4284				
73	L50201AF	083010063	08/30/2010	19:06	9.3	19.9376	113587.00	151.0543	10.5	1.9048
74	L50201AF	083010064	08/30/2010	19:13	10.5	2.7798				
75	RINSE	083010065	08/30/2010	19:20	1	0.0000				
76	RINSE	083010066	08/30/2010	19:28	1	0.0000				
77	CCB	083010067	08/30/2010	19:35	20	0.0000				
78	CCV	083010068	08/30/2010	19:42	100	1.1292				
79	L50211AF	083010069	08/30/2010	19:49	9.1	0.6981	7684.50	-18.3096	10.8	1.8519
80	L50211AF	083010070	08/30/2010	19:57	10.8	0.8388				
81	L50221AF	083010071	08/30/2010	20:04	11.6	0.3032	4143.00	-53.6326	12.2	1.6393
82	L50221AF	083010072	08/30/2010	20:11	12.2	0.5254				
83	L50231AF	083010073	08/30/2010	20:18	11.9	0.5988	7154.00	-32.5971	11.9	1.6807
84	L50231AF	083010074	08/30/2010	20:25	10	0.8320				
85	L50241AF	083010075	08/30/2010	20:33	9.5	1.3640	11981.00	27.6938	9.5	2.1053
86	L50241AF	083010076	08/30/2010	20:40	9.5	1.0322				
87	L50241A0	083010077	08/30/2010	20:47	9.2	3.3986	34654.50	-3.8581	10.8	1.8519
88	L50241A0	083010078	08/30/2010	20:54	10.8	3.5323				
89	L50241AX	083010079	08/30/2010	21:02	10.4	3.1760	34327.00	-14.9562	10.4	1.9231
90	L50241AX	083010080	08/30/2010	21:09	9	3.6894				
91	L50241A7	083010081	08/30/2010	21:16	11.3	1.2171	13355.50	-17.7380	11.3	1.7699
92	L50241A7	083010082	08/30/2010	21:23	9.6	1.4540				
93	L50261AF	083010083	08/30/2010	21:31	10.8	0.4286	6775.50	-102.3180	10.8	1.8519
94	L50261AF	083010084	08/30/2010	21:38	9.8	1.3265				
95	L51QP1AA	083010085	08/30/2010	21:45	10	2.1551	21139.00	3.8980	10	2.0000
96	L51QP1AA	083010086	08/30/2010	21:52	10	2.0727				
97	RINSE	083010087	08/30/2010	22:00	1	0.0000				
98	RINSE	083010088	08/30/2010	22:07	1	0.0000				
99	CCB	083010089	08/30/2010	22:14	20	0.0000				
100	CCV	083010090	08/30/2010	22:21	100	1.0992				
101	L51QP1AC	083010091	08/30/2010	22:29	9.5	2.2463	21696.00	7.0704	10.5	1.9048
102	L51QP1AC	083010092	08/30/2010	22:36	10.5	2.0929				
103	L51QP1AD	083010093	08/30/2010	22:43	10.4	2.3642	23630.00	0.1016	10.7	1.8692
104	L51QP1AD	083010094	08/30/2010	22:50	10.7	2.3618				
105	L5TQ31A6	083010095	08/30/2010	22:58	5.2	2.1401	22582.50	-10.4639	5.6	3.5714
106	L5TQ31A6	083010096	08/30/2010	23:05	5.6	2.3764				
107	L5TRD1A6	083010097	08/30/2010	23:12	6.5	1.8647	22922.00	-37.3004	6.5	3.0769
108	L5TRD1A6	083010098	08/30/2010	23:19	4.7	2.7197				
109	L5TRJ1AH	083010099	08/30/2010	23:27	5.3	2.0762	20761.50	0.0048	5.3	3.7736
110	L5TRJ1AH	083010100	08/30/2010	23:34	4.6	2.0761				
111	L5TRL1AH	083010101	08/30/2010	23:41	4.7	2.6377	28264.00	-13.3527	5.4	3.7037
112	L5TRL1AH	083010102	08/30/2010	23:48	5.4	3.0151				
113	L5TRT1AT	083010103	08/30/2010	23:55	4.5	0.0000	0.00	0.0000	5	4.0000
114	L5TRT1AT	083010104	08/31/2010	00:03	5	0.0000				
115	L5TRW1AH	083010105	08/31/2010	00:10	6.2	2.2247	22298.00	-0.4574	6.2	3.2258
116	L5TRW1AH	083010106	08/31/2010	00:17	5	2.2349				
117	L5TRX1AW	083010107	08/31/2010	00:24	5.5	1.4640	18062.00	-37.8917	5.5	3.6364
118	L5TRX1AW	083010108	08/31/2010	00:32	4.6	2.1484				
119	RINSE	083010109	08/31/2010	00:39	1	0.0000				
120	RINSE	083010110	08/31/2010	00:46	1	0.0000				
121	CCB	083010111	08/31/2010	00:53	20	0.0000				
122	CCV	083010112	08/31/2010	01:01	100	1.0849				
123	L5TRX1A0	083010113	08/31/2010	01:08	4.6	7.5706	67361.50	24.7575	6	3.3333
124	L5TRX1A0	083010114	08/31/2010	01:15	6	5.9023				
125	L5TRX1AX	083010115	08/31/2010	01:22	6.4	5.6669	71782.00	-42.1080	6.4	3.1250
126	L5TRX1AX	083010116	08/31/2010	01:30	4.6	8.6895				
127	L5TRX1D7	083010117	08/31/2010	01:37	5.4	1.8764	19145.50	-10.0441	6.5	3.0769
128	L5TRX1D7	083010118	08/31/2010	01:44	6.5	2.0107				
129	L5TR11AH	083010119	08/31/2010	01:51	5.7	1.6503	20544.50	-39.3439	6	3.3333
130	L5TR11AH	083010120	08/31/2010	01:59	6	2.4586				
131	L5TTT1A6	083010121	08/31/2010	02:06	5.6	3.7851	36300.00	8.5455	6.5	3.0769
132	L5TTT1A6	083010122	08/31/2010	02:13	6.5	3.4749				
133	L5TVA1AH	083010123	08/31/2010	02:20	4.5	4.1839	39275.00	12.0382	6	4.3478
134	L5TVA1AH	083010124	08/31/2010	02:27	4.6	3.6911				
135	L5TWX1AW	083010125	08/31/2010	02:35	4.4	3.3091	34755.00	-9.5756	5.1	3.9216
136	L5TWX1AW	083010126	08/31/2010	02:42	5.1	3.6419				

	A	B	C	D	E	I	J	K	L	M
137	L5TWX1A0	083010127	08/31/2010	02:49	4.7	8.8579	93149.00	-9.8122	4.7	4.2553
138	L5TWX1A0	083010128	08/31/2010	02:56	4.5	9.7719				
139	L5TWX1AX	083010129	08/31/2010	03:04	4.4	9.3245	89008.50	9.5193	6.4	3.1250
140	L5TWX1AX	083010130	08/31/2010	03:11	6.4	8.4772				
141	RINSE	083010131	08/31/2010	03:18	1	0.0000				
142	RINSE	083010132	08/31/2010	03:25	1	0.0000				
143	CCB	083010133	08/31/2010	03:33	20	0.0000				
144	CCV	083010134	08/31/2010	03:40	100	1.0389				
145	L5TWX1A7	083010135	08/31/2010	03:47	5.7	3.5056	35035.50	0.1113	6.2	3.2258
146	L5TWX1A7	083010136	08/31/2010	03:54	6.2	3.5016				
147	L5TW71AH	083010137	08/31/2010	04:02	6.4	3.2841	32317.50	3.2397	6.4	3.1250
148	L5TW71AH	083010138	08/31/2010	04:09	4.6	3.1794				
149	L5TW91AH	083010139	08/31/2010	04:16	6	1.9231	20445.00	-11.8758	6.5	3.0769
150	L5TW91AH	083010140	08/31/2010	04:23	6.5	2.1659				
151	L5TXA1AH	083010141	08/31/2010	04:31	4.6	3.8744	33177.50	33.5559	5.7	3.5088
152	L5TXA1AH	083010142	08/31/2010	04:38	5.7	2.7611				
153	L5TXC1AH	083010143	08/31/2010	04:45	6.8	2.4241	23552.00	5.8509	6.8	2.9412
154	L5TXC1AH	083010144	08/31/2010	04:52	5	2.2863				
155	L5X261AC	083010145	08/31/2010	05:00	9.6	1.4419	12437.50	31.7186	10.8	1.8519
156	L5X261AC	083010146	08/31/2010	05:07	10.8	1.0465				
157	L5X3A1AC	083010147	08/31/2010	05:14	11.5	1.1476	11961.50	-8.1177	11.5	1.7391
158	L5X3A1AC	083010148	08/31/2010	05:21	9.6	1.2447				
159	L5X3D1AH	083010149	08/31/2010	05:28	9.2	1.3823	14251.50	-6.0274	11.5	1.7391
160	L5X3D1AH	083010150	08/31/2010	05:36	11.5	1.4681				
161	L5X3F1AN	083010151	08/31/2010	05:43	10.7	1.1543	13198.50	-25.0862	11.2	1.7857
162	L5X3F1AN	083010152	08/31/2010	05:50	11.2	1.4854				
163	RINSE	083010153	08/31/2010	05:57	1	0.0000				
164	RINSE	083010154	08/31/2010	06:05	1	0.0000				
165	CCB	083010155	08/31/2010	06:12	1	0.0000				
166	CCV	083010156	08/31/2010	06:19	1	1.1235				

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Lot Number: C0H200635

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-88-SS	C0H200635 018	L5X2M1AC	31600	mg/kg	1740	6380	1.98	8/23/2010 - 8/24/2010 21:43	0235201
SD-88-01	C0H200635 019	L5X2P1AH	32500	mg/kg	1620	5960	1.85	8/23/2010 - 8/24/2010 21:58	0235201
SD-88-02	C0H200635 020	L5X2T1AN	35900	mg/kg	1360	4990	1.77	8/23/2010 - 8/24/2010 22:12	0235201
SD-89-SS	C0H200635 022	L5X201AU	28600	mg/kg	1680	6160	1.77	8/23/2010 - 8/24/2010 22:27	0235201
SD-89-01	C0H200635 023	L5X211A1	27300	mg/kg	1730	6340	1.94	8/23/2010 - 8/24/2010 22:41	0235201
SD-89-02	C0H200635 025	L5X261AC	37100	mg/kg	1500	5520	1.85	8/23/2010 - 8/31/2010 05:00	0235202
SD-99-SS	C0H200635 027	L5X3A1AC	31300	mg/kg	1240	4550	1.74	8/23/2010 - 8/31/2010 05:14	0235202
SD-99-01	C0H200635 028	L5X3D1AH	34900	mg/kg	1160	4260	1.74	8/23/2010 - 8/31/2010 05:28	0235202
SD-99-02	C0H200635 029	L5X3F1AN	34900	mg/kg	1290	4730	1.79	8/23/2010 - 8/31/2010 05:43	0235202

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Report ID: C0H200635
Date/Time Received: 8/18/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0H230000201B	201 MB	L51QM1AA	ND	mg/kg	2000	8/23/2010 - 8/24/2010 15:56	0235201	
BLK - C0H230000202B	202 MB	L51QP1AA	ND	mg/kg	2000	8/23/2010 - 8/30/2010 22:14	0235202	
INTRA-LAB QC	004 DUP	L5QT21DW	73100	mg/kg	3890	8/23/2010 - 8/24/2010 19:04	0235201	24 / 20
INTRA-LAB QC	007 DUP	L5TRX1D7	64700	mg/kg	10400	8/23/2010 - 8/31/2010 01:37	0235202	5.8 / 20

Not our Sample

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA Lloyd Kahn
Lot Number: C0H180458
Date/Time Received: 8/18/2010 10:00:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
LAB MS/MSD	MS	L5QT21DQ	170 N	75 - 125	8/23/2010 - 8/24/2010 18:50	0235201	11 / 20
LAB MS/MSD	MS	L5TRX1AX	123	75 - 125	8/23/2010 - 8/31/2010 01:22	0235202	6.4 / 20
LAB MS/MSD	MSD	L5QT21DR	132 N	75 - 125	8/23/2010 - 8/24/2010 18:35	0235201	11 / 20
LAB MS/MSD	MSD	L5TRX1A0	114	75 - 125	8/23/2010 - 8/31/2010 01:08	0235202	6.4 / 20
DUPLICATE CHECK	LCSD	L51QM1AD	84	75 - 125	8/23/2010 - 8/24/2010 16:25	0235201	1.2 / 20
DUPLICATE CHECK	LCSD	L51QP1AD	103	75 - 125	8/23/2010 - 8/30/2010 22:43	0235202	8.5 / 20
CHECK SAMPLE	LCS	L51QM1AC	85	75 - 125	8/23/2010 - 8/24/2010 16:10	0235201	1.2 / 20
CHECK SAMPLE	LCS	L51QP1AC	95	75 - 125	8/23/2010 - 8/30/2010 22:29	0235202	8.5 / 20

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Lot Number: C0H200635

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-106-SS	C0H200635 001	L5X1V1AA	33.5	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-106-01	C0H200635 002	L5X101AA	36.6	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-106-02	C0H200635 003	L5X111AA	34.9	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-106-04	C0H200635 004	L5X121AA	35.6	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-100-SS	C0H200635 005	L5X131AA	65.7	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-100-01	C0H200635 006	L5X151AA	40.0	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-100-02	C0H200635 007	L5X161AA	47.2	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-100-04	C0H200635 008	L5X171AA	62.9	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-98-SS	C0H200635 009	L5X181AA	30.0	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-98-01	C0H200635 010	L5X191AA	33.9	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-98-02	C0H200635 011	L5X2A1AA	35.4	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-DUP4-02	C0H200635 012	L5X2C1AA	51.3	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-98-04	C0H200635 013	L5X2D1AA	60.2	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-96-SS	C0H200635 014	L5X2E1AA	24.1	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-96-01	C0H200635 015	L5X2F1AA	31.3	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-96-02	C0H200635 016	L5X2H1AA	36.2	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-96-04	C0H200635 017	L5X2J1AA	63.8	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-88-SS	C0H200635 018	L5X2M1AA	31.0	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH **Method:** SM20 2540G

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0H200635

Matrix: SOLID

SD-88-01	C0H200635 019	L5X2P1AG	31.0	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-88-02	C0H200635 020	L5X2T1AM	35.5	%	0.0		1	8/22/2010 - 8/23/2010 06:10	0234026
SD-88-04	C0H200635 021	L5X2W1AA	50.5	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-89-SS	C0H200635 022	L5X201AT	28.8	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-89-01	C0H200635 023	L5X211A0	30.6	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-DUP5-01	C0H200635 024	L5X241AA	32.2	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-89-02	C0H200635 025	L5X261AA	33.5	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-89-04	C0H200635 026	L5X291AA	48.5	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-99-SS	C0H200635 027	L5X3A1AA	38.2	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-99-01	C0H200635 028	L5X3D1AG	40.8	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-99-02	C0H200635 029	L5X3F1AM	37.9	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025
SD-99-04	C0H200635 030	L5X3G1AF	42.1	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:05	0234025

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Report ID: C0H200635
Date/Time Received: 8/20/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
SD-106-SS DUP	001 DUP	L5X1V1AU	33.5	%	1.0	8/22/2010 - 8/23/2010 06:10	0234026	0.17 / 20
SD-88-04 DUP	021 DUP	L5X2W1A4	52.0	%	1.0	8/22/2010 - 8/23/2010 06:05	0234025	2.8 / 20

Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: M. MARTIN **DATE:** OCTOBER 1, 2010

FROM: A. COGNETTI **COPIES:** DV FILE

SUBJECT: ORGANIC DATA VALIDATION- PAH/PCBs
MIDDLE RIVER CENTER
FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) - C0H210447

SAMPLES: 15/Sediment/PAH/PCB

Middle River Downstream 01		Middle River Downstream 02		
Middle River Downstream 04		Middle River Downstream SS		
SD-83-01	SD-83-02	SD-83-04	SD-83-SS	SD-84-01
SD-84-02	SD-84-SS	SD-85-01	SD-85-02	SD-85-04
SD-85-SS				

Overview

The sample set for Middle River Center, SDG C0H210447, consists of fifteen (15) environmental sediment samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCBs). There are no field duplicate pairs contained within this SDG.

The samples were collected on August 19 and 20, 2010 and analyzed by Test America. PAH analyses were conducted in accordance with SW-846 Method 8270C and PCBs Method 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial and continuing calibration results, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, matrix spike/ matrix spike duplicate recoveries, laboratory control standard recoveries, detection limits, compound quantitation and compound identification. Areas of concern with respect to data quality are listed below.

Major- None.

Minor

- The percent solids was less than 30% in sample Middle River Downstream SS. Positive and nondetected results were qualified as estimated (J) and (UJ), respectively.

Notes

The percent recovery of surrogate tetra-chloro-m-xylene was greater than the upper quality control limit in sample SD-83-02. No action was taken on the nondetected PCB results in sample SD-83-02.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: The percent solids was less than 30% in sample Middle River Downstream SS.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903 SDG: C0H210447 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	MIDDLE RIVER DOWNSTREAM 01			MIDDLE RIVER DOWNSTREAM 02			MIDDLE RIVER DOWNSTREAM 04			MIDDLE RIVER DOWNSTREAM SS		
	LAB_ID	C0H210447013			C0H210447014			C0H210447015			C0H210447012		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.0			37.0			33.0			26.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		11	J	P	2.6	U		1.9	U		11	J	PY
ACENAPHTHYLENE		17	J	P	3.1	U		2.3	U		23	J	PY
ANTHRACENE		26	J	P	4.8	J	P	2	U		31	J	PY
BENZO(A)ANTHRACENE		54			3.4	U		2.5	U		67	J	Y
BENZO(A)PYRENE		47			2.7	U		2	U		64	J	Y
BENZO(B)FLUORANTHENE		89			4.3	U		3.2	U		150	J	Y
BENZO(G,H,I)PERYLENE		92			2.7	U		2	U		120	J	Y
BENZO(K)FLUORANTHENE		6.8	U		5.5	U		4.1	U		7.6	UJ	Y
CHRYSENE		56			3.3	U		2.4	U		80	J	Y
DIBENZO(A,H)ANTHRACENE		3.7	U		3	U		2.2	U		4.2	UJ	Y
FLUORANTHENE		92			12	J	P	2.1	U		130	J	Y
FLUORENE		21	J	P	3.6	U		2.6	U		12	J	PY
INDENO(1,2,3-CD)PYRENE		99			2.8	U		2.1	U		120	J	Y
NAPHTHALENE		48			2.4	U		1.7	U		36	J	PY
PHENANTHRENE		71			11	J	P	3.2	U		65	J	Y
PYRENE		96			8.9	J	P	2	U		140	J	Y

PROJ_NO: 02903 SDG: C0H210447 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-83-01			SD-83-02			SD-83-04			SD-83-SS		
	LAB_ID	C0H210447006			C0H210447007			C0H210447008			C0H210447005		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	62.0			73.0			69.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		16	J	P	0.44	U		0.47	U		11	U	
ACENAPHTHYLENE		68			0.52	U		0.56	U		13	U	
ANTHRACENE		63			0.77	J	P	0.9	J	P	46	J	P
BENZO(A)ANTHRACENE		190			0.57	U		0.61	U		160		
BENZO(A)PYRENE		210			0.45	U		0.49	U		160		
BENZO(B)FLUORANTHENE		380			0.71	U		0.76	U		290		
BENZO(G,H,I)PERYLENE		210			0.45	U		0.48	U		310		
BENZO(K)FLUORANTHENE		5.4	U		0.92	U		0.98	U		23	U	
CHRYSENE		260			0.54	U		0.58	U		180		
DIBENZO(A,H)ANTHRACENE		88			0.51	U		0.54	U		230		
FLUORANTHENE		330			3.6	J	P	3.1	J	P	290		
FLUORENE		24	J	P	1	J	P	1.2	J	P	15	U	
INDENO(1,2,3-CD)PYRENE		180			0.47	U		0.5	U		310		
NAPHTHALENE		30			0.39	U		0.42	U		9.8	U	
PHENANTHRENE		180			3.1	J	P	5			140		
PYRENE		290			2.2	J	P	3.5	J	P	290		

PROJ_NO: 02903 SDG: C0H210447 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-84-01			SD-84-02			SD-84-SS			SD-85-01		
	LAB_ID	C0H210447010			C0H210447011			C0H210447009			C0H210447002		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	57.0			53.0			77.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		29	J	P	1.2	U		540			1.2	J	P
ACENAPHTHYLENE		140			8.1	J	P	790			1.1	U	
ANTHRACENE		88			4.5	J	P	2300			0.98	U	
BENZO(A)ANTHRACENE		330			18			5000			1.3	U	
BENZO(A)PYRENE		320			14			4400			1	U	
BENZO(B)FLUORANTHENE		660			46			4700			1.6	U	
BENZO(G,H,I)PERYLENE		350			37			2900			0.99	U	
BENZO(K)FLUORANTHENE		12	U		2.5	U		22	U		2	U	
CHRYSENE		400			20			5400			1.2	U	
DIBENZO(A,H)ANTHRACENE		170			75			720			1.1	U	
FLUORANTHENE		500			32			10000			1.9	J	P
FLUORENE		42	J	P	4.6	J	P	1400			1.3	U	
INDENO(1,2,3-CD)PYRENE		330			77			2300			1	U	
NAPHTHALENE		45	J	P	1.1	U		200			0.86	U	
PHENANTHRENE		260			19			12000			3.4	J	P
PYRENE		430			22			11000			1.5	J	P

PROJ_NO: 02903 SDG: C0H210447 FRACTION: PAH MEDIA: SEDIMENT	NSAMPLE	SD-85-02			SD-85-04			SD-85-SS		
	LAB_ID	C0H210447003			C0H210447004			C0H210447001		
	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	54.0			61.0			75.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		1.2	U		1.6	U		22	J	P
ACENAPHTHYLENE		1.4	U		1.9	U		140		
ANTHRACENE		1.2	U		1.6	U		170		
BENZO(A)ANTHRACENE		1.5	U		2.1	U		390		
BENZO(A)PYRENE		1.2	U		1.7	U		450		
BENZO(B)FLUORANTHENE		1.9	U		2.6	U		540		
BENZO(G,H,I)PERYLENE		1.2	U		1.6	U		550		
BENZO(K)FLUORANTHENE		2.5	U		3.3	U		190		
CHRYSENE		1.5	U		2	U		520		
DIBENZO(A,H)ANTHRACENE		1.4	U		1.8	U		280		
FLUORANTHENE		1.3	U		1.8	U		570		
FLUORENE		1.6	U		2.2	U		43	J	P
INDENO(1,2,3-CD)PYRENE		1.3	U		1.7	U		500		
NAPHTHALENE		1.1	U		1.4	U		29	J	P
PHENANTHRENE		3.8	J	P	5.8	J	P	290		
PYRENE		1.2	U		1.7	U		770		

PROJ_NO: 02903	NSAMPLE	MIDDLE RIVER DOWNSTREAM 01			MIDDLE RIVER DOWNSTREAM 02			MIDDLE RIVER DOWNSTREAM 04			MIDDLE RIVER DOWNSTREAM SS		
SDG: C0H210447	LAB_ID	C0H210447013			C0H210447014			C0H210447015			C0H210447012		
FRACTION: PEST/PCB	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	30.0			37.0			33.0			26.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		4.1	U		3.4	U		3.7	U		4.7	UJ	Y
AROCLOR-1221		5.3	U		4.4	U		4.8	U		6	UJ	Y
AROCLOR-1232		4.8	U		3.9	U		4.3	U		5.4	UJ	Y
AROCLOR-1242		4.5	U		3.7	U		4.1	U		5.1	UJ	Y
AROCLOR-1248		2.6	U		2.2	U		2.4	U		3	UJ	Y
AROCLOR-1254		4	U		3.2	U		3.6	U		4.5	UJ	Y
AROCLOR-1260		65			3.2	U		3.6	U		4.5	UJ	Y

PROJ_NO: 02903 SDG: C0H210447 FRACTION: PEST/PCB MEDIA: SEDIMENT	NSAMPLE	SD-83-01			SD-83-02			SD-83-04			SD-83-SS		
	LAB_ID	C0H210447006			C0H210447007			C0H210447008			C0H210447005		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	62.0			73.0			69.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2	U		1.7	U		1.8	U		1.7	U	
AROCLOR-1221		2.5	U		2.1	U		2.3	U		2.2	U	
AROCLOR-1232		2.3	U		1.9	U		2.1	U		2	U	
AROCLOR-1242		2.2	U		1.8	U		2	U		1.9	U	
AROCLOR-1248		1.3	U		1.1	U		1.1	U		1.1	U	
AROCLOR-1254		1.9	U		1.6	U		1.7	U		1.6	U	
AROCLOR-1260		17			1.6	U		1.7	U		35		

PROJ_NO: 02903	NSAMPLE	SD-84-01			SD-84-02			SD-84-SS			SD-85-01		
SDG: C0H210447	LAB_ID	C0H210447010			C0H210447011			C0H210447009			C0H210447002		
FRACTION: PEST/PCB	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	57.0			53.0			77.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.2	U		2.3	U		1.6	U		1.9	U	
AROCLOR-1221		2.8	U		3	U		2.1	U		2.4	U	
AROCLOR-1232		2.5	U		2.7	U		1.9	U		2.1	U	
AROCLOR-1242		2.4	U		2.5	U		1.8	U		2	U	
AROCLOR-1248		1.4	U		1.5	U		1	U		1.2	U	
AROCLOR-1254		2.1	U		2.2	U		1.5	U		1.8	U	
AROCLOR-1260		2.1	U		2.2	U		83			1.8	U	

PROJ_NO: 02903	NSAMPLE	SD-85-02			SD-85-04			SD-85-SS		
SDG: C0H210447	LAB_ID	C0H210447003			C0H210447004			C0H210447001		
FRACTION: PEST/PCB	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	54.0			61.0			75.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		2.3	U		2	U		1.7	U	
AROCLOR-1221		2.9	U		2.6	U		2.1	U	
AROCLOR-1232		2.6	U		2.4	U		1.9	U	
AROCLOR-1242		2.5	U		2.2	U		1.8	U	
AROCLOR-1248		1.5	U		1.3	U		1.1	U	
AROCLOR-1254		2.2	U		2	U		1.6	U	
AROCLOR-1260		2.2	U		2	U		35		

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 01

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-013	**Work Order #...:**	L500A1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 13:39	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	18:28		
Dilution Factor:	1.5	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	70	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**48**	**34**	**ug/kg**	**2.9**
Acenaphthylene	**17 J**	**34**	**ug/kg**	**3.8**
Acenaphthene	**11 J**	**34**	**ug/kg**	**3.2**
Fluorene	**21 J**	**34**	**ug/kg**	**4.4**
Phenanthrene	**71**	**34**	**ug/kg**	**5.3**
Anthracene	**26 J**	**34**	**ug/kg**	**3.3**
Fluoranthene	**92**	**34**	**ug/kg**	**3.6**
Pyrene	**96**	**34**	**ug/kg**	**3.4**
Benzo(a)anthracene	**54**	**34**	**ug/kg**	**4.2**
Chrysene	**56**	**34**	**ug/kg**	**4.0**
Benzo(b)fluoranthene	**89**	**34**	**ug/kg**	**5.3**
Benzo(k)fluoranthene	ND	34	ug/kg	6.8
Benzo(a)pyrene	**47**	**34**	**ug/kg**	**3.3**
Indeno(1,2,3-cd)pyrene	**99**	**34**	**ug/kg**	**3.4**
Dibenzo(a,h)anthracene	ND	34	ug/kg	3.7
Benzo(ghi)perylene	**92**	**34**	**ug/kg**	**3.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(27 - 110)
Terphenyl-d14	78	(21 - 130)
2-Fluorobiphenyl	84	(28 - 108)
2-Fluorophenol	70	(28 - 107)
Phenol-d5	70	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 02

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-014	**Work Order #...:**	L500D1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 13:41	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	18:50		
Dilution Factor:	1.5	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	63	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	28	ug/kg	2.4
Acenaphthylene	ND	28	ug/kg	3.1
Acenaphthene	ND	28	ug/kg	2.6
Fluorene	ND	28	ug/kg	3.6
Phenanthrene	**11 J**	**28**	**ug/kg**	**4.4**
Anthracene	**4.8 J**	**28**	**ug/kg**	**2.7**
Fluoranthene	**12 J**	**28**	**ug/kg**	**2.9**
Pyrene	**8.9 J**	**28**	**ug/kg**	**2.8**
Benzo(a)anthracene	ND	28	ug/kg	3.4
Chrysene	ND	28	ug/kg	3.3
Benzo(b)fluoranthene	ND	28	ug/kg	4.3
Benzo(k)fluoranthene	ND	28	ug/kg	5.5
Benzo(a)pyrene	ND	28	ug/kg	2.7
Indeno(1,2,3-cd)pyrene	ND	28	ug/kg	2.8
Dibenzo(a,h)anthracene	ND	28	ug/kg	3.0
Benzo(ghi)perylene	ND	28	ug/kg	2.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	88	(27 - 110)
Terphenyl-d14	70	(21 - 130)
2-Fluorobiphenyl	81	(28 - 108)
2-Fluorophenol	80	(28 - 107)
Phenol-d5	78	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 04

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-015	**Work Order #...:**	L500E1AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 13:43	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	19:12		
Dilution Factor:	1	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	67	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	20	ug/kg	1.7
Acenaphthylene	ND	20	ug/kg	2.3
Acenaphthene	ND	20	ug/kg	1.9
Fluorene	ND	20	ug/kg	2.6
Phenanthrene	ND	20	ug/kg	3.2
Anthracene	ND	20	ug/kg	2.0
Fluoranthene	ND	20	ug/kg	2.1
Pyrene	ND	20	ug/kg	2.0
Benzo(a)anthracene	ND	20	ug/kg	2.5
Chrysene	ND	20	ug/kg	2.4
Benzo(b)fluoranthene	ND	20	ug/kg	3.2
Benzo(k)fluoranthene	ND	20	ug/kg	4.1
Benzo(a)pyrene	ND	20	ug/kg	2.0
Indeno(1,2,3-cd)pyrene	ND	20	ug/kg	2.1
Dibenzo(a,h)anthracene	ND	20	ug/kg	2.2
Benzo(ghi)perylene	ND	20	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(27 - 110)
Terphenyl-d14	63	(21 - 130)
2-Fluorobiphenyl	67	(28 - 108)
2-Fluorophenol	58	(28 - 107)
Phenol-d5	57	(30 - 112)
2,4,6-Tribromophenol	66	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-012	**Work Order #...:**	L50X71AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 13:37	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	18:06		
Dilution Factor:	1.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	74	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**36 J**	**38**	**ug/kg**	**3.3**
Acenaphthylene	**23 J**	**38**	**ug/kg**	**4.3**
Acenaphthene	**11 J**	**38**	**ug/kg**	**3.6**
Fluorene	**12 J**	**38**	**ug/kg**	**5.0**
Phenanthrene	**65**	**38**	**ug/kg**	**6.0**
Anthracene	**31 J**	**38**	**ug/kg**	**3.7**
Fluoranthene	**130**	**38**	**ug/kg**	**4.0**
Pyrene	**140**	**38**	**ug/kg**	**3.8**
Benzo(a)anthracene	**67**	**38**	**ug/kg**	**4.7**
Chrysene	**80**	**38**	**ug/kg**	**4.5**
Benzo(b)fluoranthene	**150**	**38**	**ug/kg**	**5.9**
Benzo(k)fluoranthene	ND	38	ug/kg	7.6
Benzo(a)pyrene	**64**	**38**	**ug/kg**	**3.8**
Indeno(1,2,3-cd)pyrene	**120**	**38**	**ug/kg**	**3.9**
Dibenzo(a,h)anthracene	ND	38	ug/kg	4.2
Benzo(ghi)perylene	**120**	**38**	**ug/kg**	**3.8**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(27 - 110)
Terphenyl-d14	74	(21 - 130)
2-Fluorobiphenyl	75	(28 - 108)
2-Fluorophenol	70	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	79	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-006	**Work Order #...:**	L50X11AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 10:27	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	15:51		
Dilution Factor:	2.49	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	38	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**30**	**27**	**ug/kg**	**2.3**
Acenaphthylene	**68**	**27**	**ug/kg**	**3.1**
Acenaphthene	**16 J**	**27**	**ug/kg**	**2.6**
Fluorene	**24 J**	**27**	**ug/kg**	**3.5**
Phenanthrene	**180**	**27**	**ug/kg**	**4.3**
Anthracene	**63**	**27**	**ug/kg**	**2.6**
Fluoranthene	**330**	**27**	**ug/kg**	**2.9**
Pyrene	**290**	**27**	**ug/kg**	**2.7**
Benzo(a)anthracene	**190**	**27**	**ug/kg**	**3.4**
Chrysene	**260**	**27**	**ug/kg**	**3.2**
Benzo(b)fluoranthene	**380**	**27**	**ug/kg**	**4.2**
Benzo(k)fluoranthene	ND	27	ug/kg	5.4
Benzo(a)pyrene	**210**	**27**	**ug/kg**	**2.7**
Indeno(1,2,3-cd)pyrene	**180**	**27**	**ug/kg**	**2.8**
Dibenzo(a,h)anthracene	**88**	**27**	**ug/kg**	**3.0**
Benzo(ghi)perylene	**210**	**27**	**ug/kg**	**2.7**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	95	(27 - 110)
Terphenyl-d14	73	(21 - 130)
2-Fluorobiphenyl	82	(28 - 108)
2-Fluorophenol	79	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	92	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-007	**Work Order #...:**	L50X21AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 10:29	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	16:13		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	27	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	4.6	ug/kg	0.39
Acenaphthylene	ND	4.6	ug/kg	0.52
Acenaphthene	ND	4.6	ug/kg	0.44
Fluorene	**1.0 J**	**4.6**	**ug/kg**	**0.60**
Phenanthrene	**3.1 J**	**4.6**	**ug/kg**	**0.72**
Anthracene	**0.77 J**	**4.6**	**ug/kg**	**0.44**
Fluoranthene	**3.6 J**	**4.6**	**ug/kg**	**0.49**
Pyrene	**2.2 J**	**4.6**	**ug/kg**	**0.46**
Benzo(a)anthracene	ND	4.6	ug/kg	0.57
Chrysene	ND	4.6	ug/kg	0.54
Benzo(b)fluoranthene	ND	4.6	ug/kg	0.71
Benzo(k)fluoranthene	ND	4.6	ug/kg	0.92
Benzo(a)pyrene	ND	4.6	ug/kg	0.45
Indeno(1,2,3-cd)pyrene	ND	4.6	ug/kg	0.47
Dibenzo(a,h)anthracene	ND	4.6	ug/kg	0.51
Benzo(ghi)perylene	ND	4.6	ug/kg	0.45

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(27 - 110)
Terphenyl-d14	77	(21 - 130)
2-Fluorobiphenyl	80	(28 - 108)
2-Fluorophenol	73	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	90	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-008	**Work Order #...:**	L50X31AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 10:31	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	16:36		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	31	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	4.9	ug/kg	0.42
Acenaphthylene	ND	4.9	ug/kg	0.56
Acenaphthene	ND	4.9	ug/kg	0.47
Fluorene	**1.2 J**	**4.9**	**ug/kg**	**0.64**
Phenanthrene	**5.0**	**4.9**	**ug/kg**	**0.77**
Anthracene	**0.90 J**	**4.9**	**ug/kg**	**0.48**
Fluoranthene	**3.1 J**	**4.9**	**ug/kg**	**0.52**
Pyrene	**3.5 J**	**4.9**	**ug/kg**	**0.49**
Benzo(a)anthracene	ND	4.9	ug/kg	0.61
Chrysene	ND	4.9	ug/kg	0.58
Benzo(b)fluoranthene	ND	4.9	ug/kg	0.76
Benzo(k)fluoranthene	ND	4.9	ug/kg	0.98
Benzo(a)pyrene	ND	4.9	ug/kg	0.49
Indeno(1,2,3-cd)pyrene	ND	4.9	ug/kg	0.50
Dibenzo(a,h)anthracene	ND	4.9	ug/kg	0.54
Benzo(ghi)perylene	ND	4.9	ug/kg	0.48

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	79	(27 - 110)
Terphenyl-d14	83	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	68	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-005	**Work Order #...:**	L50X01AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 10:25	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	15:29		
Dilution Factor:	12.42	**Initial Wgt/Vol:**	30.2 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	27	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	110	ug/kg	9.8
Acenaphthylene	ND	110	ug/kg	13
Acenaphthene	ND	110	ug/kg	11
Fluorene	ND	110	ug/kg	15
Phenanthrene	**140**	**110**	**ug/kg**	**18**
Anthracene	**46 J**	**110**	**ug/kg**	**11**
Fluoranthene	**290**	**110**	**ug/kg**	**12**
Pyrene	**290**	**110**	**ug/kg**	**12**
Benzo(a)anthracene	**160**	**110**	**ug/kg**	**14**
Chrysene	**180**	**110**	**ug/kg**	**14**
Benzo(b)fluoranthene	**290**	**110**	**ug/kg**	**18**
Benzo(k)fluoranthene	ND	110	ug/kg	23
Benzo(a)pyrene	**160**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**310**	**110**	**ug/kg**	**12**
Dibenzo(a,h)anthracene	**230**	**110**	**ug/kg**	**13**
Benzo(ghi)perylene	**310**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-010	Work Order #...:	L50X51AD	Matrix.....:	SOLID
Date Sampled...:	08/20/10 11:05	Date Received..:	08/21/10 10:30	MS Run #.....:	
Prep Date.....:	08/24/10	Analysis Date..:	08/27/10		
Prep Batch #...:	0236295	Analysis Time..:	17:21		
Dilution Factor:	5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	43	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	45 J	59	ug/kg	5.1
Acenaphthylene	140	59	ug/kg	6.8
Acenaphthene	29 J	59	ug/kg	5.7
Fluorene	42 J	59	ug/kg	7.8
Phenanthrene	260	59	ug/kg	9.4
Anthracene	88	59	ug/kg	5.8
Fluoranthene	500	59	ug/kg	6.3
Pyrene	430	59	ug/kg	6.0
Benzo(a)anthracene	330	59	ug/kg	7.4
Chrysene	400	59	ug/kg	7.0
Benzo(b)fluoranthene	660	59	ug/kg	9.3
Benzo(k)fluoranthene	ND	59	ug/kg	12
Benzo(a)pyrene	320	59	ug/kg	5.9
Indeno(1,2,3-cd)pyrene	330	59	ug/kg	6.1
Dibenzo(a,h)anthracene	170	59	ug/kg	6.6
Benzo(ghi)perylene	350	59	ug/kg	5.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	107	(27 - 110)
Terphenyl-d14	79	(21 - 130)
2-Fluorobiphenyl	95	(28 - 108)
2-Fluorophenol	91	(28 - 107)
Phenol-d5	85	(30 - 112)
2,4,6-Tribromophenol	95	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-011	**Work Order #...:**	L50X61AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 11:07	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	17:43		
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	47	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	13	ug/kg	1.1
Acenaphthylene	**8.1 J**	**13**	**ug/kg**	**1.4**
Acenaphthene	ND	13	ug/kg	1.2
Fluorene	**4.6 J**	**13**	**ug/kg**	**1.6**
Phenanthrene	**19**	**13**	**ug/kg**	**2.0**
Anthracene	**4.5 J**	**13**	**ug/kg**	**1.2**
Fluoranthene	**32**	**13**	**ug/kg**	**1.3**
Pyrene	**22**	**13**	**ug/kg**	**1.3**
Benzo(a)anthracene	**18**	**13**	**ug/kg**	**1.6**
Chrysene	**20**	**13**	**ug/kg**	**1.5**
Benzo(b)fluoranthene	**46**	**13**	**ug/kg**	**2.0**
Benzo(k)fluoranthene	ND	13	ug/kg	2.5
Benzo(a)pyrene	**14**	**13**	**ug/kg**	**1.2**
Indeno(1,2,3-cd)pyrene	**77**	**13**	**ug/kg**	**1.3**
Dibenzo(a,h)anthracene	**75**	**13**	**ug/kg**	**1.4**
Benzo(ghi)perylene	**37**	**13**	**ug/kg**	**1.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	62	(21 - 130)
2-Fluorobiphenyl	75	(28 - 108)
2-Fluorophenol	67	(28 - 107)
Phenol-d5	67	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-009	**Work Order #...:**	L50X41AD	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10 11:03	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0236295	**Analysis Time..:**	14:26		
Dilution Factor:	12.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	23	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**200**	**110**	**ug/kg**	**9.3**
Acenaphthylene	**790**	**110**	**ug/kg**	**12**
Acenaphthene	**540**	**110**	**ug/kg**	**10**
Fluorene	**1400**	**110**	**ug/kg**	**14**
Phenanthrene	**12000**	**110**	**ug/kg**	**17**
Anthracene	**2300**	**110**	**ug/kg**	**11**
Fluoranthene	**10000**	**110**	**ug/kg**	**12**
Pyrene	**11000**	**110**	**ug/kg**	**11**
Benzo(a)anthracene	**5000**	**110**	**ug/kg**	**14**
Chrysene	**5400**	**110**	**ug/kg**	**13**
Benzo(b)fluoranthene	**4700**	**110**	**ug/kg**	**17**
Benzo(k)fluoranthene	ND	110	ug/kg	22
Benzo(a)pyrene	**4400**	**110**	**ug/kg**	**11**
Indeno(1,2,3-cd)pyrene	**2300**	**110**	**ug/kg**	**11**
Dibenzo(a,h)anthracene	**720**	**110**	**ug/kg**	**12**
Benzo(ghi)perylene	**2900**	**110**	**ug/kg**	**11**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-002	**Work Order #...:**	L50XT1AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 16:34	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/31/10		
Prep Batch #...:	0236295	**Analysis Time..:**	14:04		
Dilution Factor:	1	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	33	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	10	ug/kg	0.86
Acenaphthylene	ND	10	ug/kg	1.1
Acenaphthene	**1.2 J**	**10**	**ug/kg**	**0.96**
Fluorene	ND	10	ug/kg	1.3
Phenanthrene	**3.4 J**	**10**	**ug/kg**	**1.6**
Anthracene	ND	10	ug/kg	0.98
Fluoranthene	**1.9 J**	**10**	**ug/kg**	**1.1**
Pyrene	**1.5 J**	**10**	**ug/kg**	**1.0**
Benzo(a)anthracene	ND	10	ug/kg	1.3
Chrysene	ND	10	ug/kg	1.2
Benzo(b)fluoranthene	ND	10	ug/kg	1.6
Benzo(k)fluoranthene	ND	10	ug/kg	2.0
Benzo(a)pyrene	ND	10	ug/kg	1.0
Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	1.0
Dibenzo(a,h)anthracene	ND	10	ug/kg	1.1
Benzo(ghi)perylene	ND	10	ug/kg	0.99

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(27 - 110)
Terphenyl-d14	68	(21 - 130)
2-Fluorobiphenyl	70	(28 - 108)
2-Fluorophenol	67	(28 - 107)
Phenol-d5	72	(30 - 112)
2,4,6-Tribromophenol	76	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-003	**Work Order #...:**	L50XW1AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 16:36	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	14:45		
Dilution Factor:	1	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	46	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	12	ug/kg	1.1
Acenaphthylene	ND	12	ug/kg	1.4
Acenaphthene	ND	12	ug/kg	1.2
Fluorene	ND	12	ug/kg	1.6
Phenanthrene	**3.8 J**	**12**	**ug/kg**	**2.0**
Anthracene	ND	12	ug/kg	1.2
Fluoranthene	ND	12	ug/kg	1.3
Pyrene	ND	12	ug/kg	1.2
Benzo(a)anthracene	ND	12	ug/kg	1.5
Chrysene	ND	12	ug/kg	1.5
Benzo(b)fluoranthene	ND	12	ug/kg	1.9
Benzo(k)fluoranthene	ND	12	ug/kg	2.5
Benzo(a)pyrene	ND	12	ug/kg	1.2
Indeno(1,2,3-cd)pyrene	ND	12	ug/kg	1.3
Dibenzo(a,h)anthracene	ND	12	ug/kg	1.4
Benzo(ghi)perylene	ND	12	ug/kg	1.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(27 - 110)
Terphenyl-d14	90	(21 - 130)
2-Fluorobiphenyl	85	(28 - 108)
2-Fluorophenol	61	(28 - 107)
Phenol-d5	72	(30 - 112)
2,4,6-Tribromophenol	99	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-004	**Work Order #...:**	L50XX1AJ	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10 16:38	**Date Received..:**	08/21/10 10:30	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	08/27/10		
Prep Batch #...:	0236295	**Analysis Time..:**	15:07		
Dilution Factor:	1.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	39	**Analyst ID.....:**	003200	**Instrument ID..:**	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	17	ug/kg	1.4
Acenaphthylene	ND	17	ug/kg	1.9
Acenaphthene	ND	17	ug/kg	1.6
Fluorene	ND	17	ug/kg	2.2
Phenanthrene	**5.8 J**	**17**	**ug/kg**	**2.6**
Anthracene	ND	17	ug/kg	1.6
Fluoranthene	ND	17	ug/kg	1.8
Pyrene	ND	17	ug/kg	1.7
Benzo(a)anthracene	ND	17	ug/kg	2.1
Chrysene	ND	17	ug/kg	2.0
Benzo(b)fluoranthene	ND	17	ug/kg	2.6
Benzo(k)fluoranthene	ND	17	ug/kg	3.3
Benzo(a)pyrene	ND	17	ug/kg	1.7
Indeno(1,2,3-cd)pyrene	ND	17	ug/kg	1.7
Dibenzo(a,h)anthracene	ND	17	ug/kg	1.8
Benzo(ghi)perylene	ND	17	ug/kg	1.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	86	(27 - 110)
Terphenyl-d14	79	(21 - 130)
2-Fluorobiphenyl	76	(28 - 108)
2-Fluorophenol	75	(28 - 107)
Phenol-d5	76	(30 - 112)
2,4,6-Tribromophenol	84	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-001	Work Order #...:	L50XR1AD	Matrix.....:	SOLID
Date Sampled...:	08/19/10 16:32	Date Received..:	08/21/10 10:30	MS Run #.....:	
Prep Date.....:	08/24/10	Analysis Date..:	08/27/10		
Prep Batch #...:	0236295	Analysis Time..:	14:00		
Dilution Factor:	12.42	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	25	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	29 J	110	ug/kg	9.5
Acenaphthylene	140	110	ug/kg	13
Acenaphthene	22 J	110	ug/kg	11
Fluorene	43 J	110	ug/kg	15
Phenanthrene	290	110	ug/kg	18
Anthracene	170	110	ug/kg	11
Fluoranthene	570	110	ug/kg	12
Pyrene	770	110	ug/kg	11
Benzo(a)anthracene	390	110	ug/kg	14
Chrysene	520	110	ug/kg	13
Benzo(b)fluoranthene	540	110	ug/kg	17
Benzo(k)fluoranthene	190	110	ug/kg	22
Benzo(a)pyrene	450	110	ug/kg	11
Indeno(1,2,3-cd)pyrene	500	110	ug/kg	11
Dibenzo(a,h)anthracene	280	110	ug/kg	12
Benzo(ghi)perylene	550	110	ug/kg	11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 01

GC Semivolatiles

Lot-Sample #...:	C0H210447-013	**Work Order #...:**	L500A1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	22:53		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	70	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	28	ug/kg	4.1
Aroclor 1221	ND	28	ug/kg	5.3
Aroclor 1232	ND	28	ug/kg	4.8
Aroclor 1242	ND	28	ug/kg	4.5
Aroclor 1248	ND	28	ug/kg	2.6
Aroclor 1254	ND	28	ug/kg	4.0
Aroclor 1260	**65**	**28**	**ug/kg**	**4.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107	(35 - 140)
Decachlorobiphenyl	112	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 02

GC Semivolatiles

Lot-Sample #...:	C0H210447-014	**Work Order #...:**	L500D1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	19:07		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	63	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.4
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.7
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.2
Aroclor 1260	ND	23	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(35 - 140)
Decachlorobiphenyl	76	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 04

GC Semivolatiles

Lot-Sample #...:	C0H210447-015	**Work Order #...:**	L500E1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	19:28		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	67	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	25	ug/kg	3.7
Aroclor 1221	ND	25	ug/kg	4.8
Aroclor 1232	ND	25	ug/kg	4.3
Aroclor 1242	ND	25	ug/kg	4.1
Aroclor 1248	ND	25	ug/kg	2.4
Aroclor 1254	ND	25	ug/kg	3.6
Aroclor 1260	ND	25	ug/kg	3.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM SS

GC Semivolatiles

Lot-Sample #...:	C0H210447-012	**Work Order #...:**	L50X71AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	22:33		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	74	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	32	ug/kg	4.7
Aroclor 1221	ND	32	ug/kg	6.0
Aroclor 1232	ND	32	ug/kg	5.4
Aroclor 1242	ND	32	ug/kg	5.1
Aroclor 1248	ND	32	ug/kg	3.0
Aroclor 1254	ND	32	ug/kg	4.5
Aroclor 1260	ND	32	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	108	(35 - 140)
Decachlorobiphenyl	96	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-01

GC Semivolatiles

Lot-Sample #...:	C0H210447-006	**Work Order #...:**	L50X11AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	21:52		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	38	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	13	ug/kg	2.0
Aroclor 1221	ND	13	ug/kg	2.5
Aroclor 1232	ND	13	ug/kg	2.3
Aroclor 1242	ND	13	ug/kg	2.2
Aroclor 1248	ND	13	ug/kg	1.3
Aroclor 1254	ND	13	ug/kg	1.9
Aroclor 1260	**17**	**13**	**ug/kg**	**1.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107	(35 - 140)
Decachlorobiphenyl	91	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-02

GC Semivolatiles

Lot-Sample #...:	C0H210447-007	**Work Order #...:**	L50X21AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	16:44		
Dilution Factor:	0.49	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol...:**	10 mL
% Moisture.....:	27	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.7
Aroclor 1221	ND	11	ug/kg	2.1
Aroclor 1232	ND	11	ug/kg	1.9
Aroclor 1242	ND	11	ug/kg	1.8
Aroclor 1248	ND	11	ug/kg	1.1
Aroclor 1254	ND	11	ug/kg	1.6
Aroclor 1260	ND	11	ug/kg	1.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	142 *	(35 - 140)
Decachlorobiphenyl	115	(35 - 140)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-04

GC Semivolatiles

Lot-Sample #...:	C0H210447-008	**Work Order #...:**	L50X31AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	17:05		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	31	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.8
Aroclor 1221	ND	12	ug/kg	2.3
Aroclor 1232	ND	12	ug/kg	2.1
Aroclor 1242	ND	12	ug/kg	2.0
Aroclor 1248	ND	12	ug/kg	1.1
Aroclor 1254	ND	12	ug/kg	1.7
Aroclor 1260	ND	12	ug/kg	1.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-SS

GC Semivolatiles

Lot-Sample #...:	C0H210447-005	**Work Order #...:**	L50X01AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	21:32		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	27	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.7
Aroclor 1221	ND	11	ug/kg	2.2
Aroclor 1232	ND	11	ug/kg	2.0
Aroclor 1242	ND	11	ug/kg	1.9
Aroclor 1248	ND	11	ug/kg	1.1
Aroclor 1254	ND	11	ug/kg	1.6
Aroclor 1260	**35**	**11**	**ug/kg**	**1.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-01

GC Semivolatiles

Lot-Sample #...:	C0H210447-010	**Work Order #...:**	L50X51AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	17:46		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	43	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.2
Aroclor 1221	ND	15	ug/kg	2.8
Aroclor 1232	ND	15	ug/kg	2.5
Aroclor 1242	ND	15	ug/kg	2.4
Aroclor 1248	ND	15	ug/kg	1.4
Aroclor 1254	ND	15	ug/kg	2.1
Aroclor 1260	ND	15	ug/kg	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	106	(35 - 140)
Decachlorobiphenyl	84	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-02

GC Semivolatiles

Lot-Sample #...:	C0H210447-011	**Work Order #...:**	L50X61AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	18:06		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	47	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	16	ug/kg	2.3
Aroclor 1221	ND	16	ug/kg	3.0
Aroclor 1232	ND	16	ug/kg	2.7
Aroclor 1242	ND	16	ug/kg	2.5
Aroclor 1248	ND	16	ug/kg	1.5
Aroclor 1254	ND	16	ug/kg	2.2
Aroclor 1260	ND	16	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(35 - 140)
Decachlorobiphenyl	80	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-SS

GC Semivolatiles

Lot-Sample #...:	C0H210447-009	**Work Order #...:**	L50X41AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	22:12		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	23	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.6
Aroclor 1221	ND	11	ug/kg	2.1
Aroclor 1232	ND	11	ug/kg	1.9
Aroclor 1242	ND	11	ug/kg	1.8
Aroclor 1248	ND	11	ug/kg	1.0
Aroclor 1254	ND	11	ug/kg	1.5
Aroclor 1260	**83**	**11**	**ug/kg**	**1.5**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	115	(35 - 140)
Decachlorobiphenyl	85	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-01

GC Semivolatiles

Lot-Sample #...:	C0H210447-002	**Work Order #...:**	L50XT1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	15:02		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	33	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.9
Aroclor 1221	ND	12	ug/kg	2.4
Aroclor 1232	ND	12	ug/kg	2.1
Aroclor 1242	ND	12	ug/kg	2.0
Aroclor 1248	ND	12	ug/kg	1.2
Aroclor 1254	ND	12	ug/kg	1.8
Aroclor 1260	ND	12	ug/kg	1.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	87	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-02

GC Semivolatiles

Lot-Sample #...:	C0H210447-003	**Work Order #...:**	L50XW1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	15:23		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	46	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	15	ug/kg	2.3
Aroclor 1221	ND	15	ug/kg	2.9
Aroclor 1232	ND	15	ug/kg	2.6
Aroclor 1242	ND	15	ug/kg	2.5
Aroclor 1248	ND	15	ug/kg	1.5
Aroclor 1254	ND	15	ug/kg	2.2
Aroclor 1260	ND	15	ug/kg	2.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-04

GC Semivolatiles

Lot-Sample #...:	C0H210447-004	**Work Order #...:**	L50XX1AK	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/01/10		
Prep Batch #...:	0236288	**Analysis Time..:**	15:43		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	39	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	14	ug/kg	2.0
Aroclor 1221	ND	14	ug/kg	2.6
Aroclor 1232	ND	14	ug/kg	2.4
Aroclor 1242	ND	14	ug/kg	2.2
Aroclor 1248	ND	14	ug/kg	1.3
Aroclor 1254	ND	14	ug/kg	2.0
Aroclor 1260	ND	14	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

GC Semivolatiles

Lot-Sample #...:	C0H210447-001	**Work Order #...:**	L50XR1AE	**Matrix.....:**	SOLID
Date Sampled...:	08/19/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	21:11		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	25	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.7
Aroclor 1221	ND	11	ug/kg	2.1
Aroclor 1232	ND	11	ug/kg	1.9
Aroclor 1242	ND	11	ug/kg	1.8
Aroclor 1248	ND	11	ug/kg	1.1
Aroclor 1254	ND	11	ug/kg	1.6
Aroclor 1260	**35**	**11**	**ug/kg**	**1.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	110	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Appendix C

Support Documentation

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H210447

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 21, 2010. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

Several samples were analyzed at a dilution due to matrix interference and/or concentration of compounds detected.

Several samples had the surrogates diluted out.

PCBs:
Sample SD-83-02 had the surrogate recovery of tetrachloro-m-xylene recover above the control limit. The recovery of decachlorobiphenyl was within the control limits.

Metals:
The serial dilution percent difference was outside the control limit for SEM chromium, cadmium, nickel, lead, and zinc for sample SD-85-SS.

Sample SD-84-SS was over the instrument's linear range for lead and antimony, and required dilution.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spikes of sample SD-85-SS recovered below the control limit for arsenic, cadmium, copper, zinc and selenium. The matrix spike duplicate recovered below the control limit for antimony, and nickel. The RPD for antimony and nickel was above the control limit.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H210447

Metals (cont.):
For the matrix spikes of sample SD-85-SS, chromium and lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
The RPD for the duplicate analysis was above the control limit for TOC.

Samples SD-84-SS and MIDDLE RIVER DOWNSTREAM SS were originally analyzed within the holding time for TOC but the analytical run was not valid. The samples were re-analyzed outside of holding time.

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TETRA TECH	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141293
Address: 20251 CENTURY BLVD SUITE 200	Telephone Number (Area Code)/Fax Number: 3015283022 301-528-3000	Lab Number:	Page 1 of 2
City: GERMANTOWN / State: MD / Zip Code: 20874	Site Contact: Tony Apanovage	Lab Contact:	
Project Name and Location (State): MRC SEDIMENT SAMPLING, MIDDLE RIVER, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP Metals	PAHs	PCBs	TOC	AVS/SEM	Special Instructions/ Conditions of Receipt
SD-85-SS	8/19/10	1632			X		X						X	X	X	X	X	
SD-85-01	↓	1634			↓		↓						X	X	X	X	X	
SD-85-02	↓	1636			↓		↓						X	X	X	X	X	
SD-85-04	8/19/10	1638			↓		↓						X	X	X		X	
SD-83-SS	8/20/10	1025			↓		↓						X	X	X			
SD-83-01	↓	1027			↓		↓						X	X	X			
SD-83-02	↓	1029			↓		↓						X	X	X			
SD-83-04	↓	1031			↓		↓						X	X	X			
SD-84-SS	↓	1103			↓		↓						X	X	X			
SD-84-01	↓	1105			↓		↓						X	X	X			
SD-84-02	8/20/10	1107			X		X						X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/20/10	1520	1. Received By	8/20/10	1520
2. Relinquished By	8/20/10	1615	2. Received By		
3. Relinquished By			3. Received By	8/21/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1 - 272)

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COH210447

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech	mike martin		154268
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
20251 Century Blvd. Suite 2000	301-528-3022 301-528-3000		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Germantown MD 20874	Tony Appavage		
Project Name and Location (State)	**Carrier/Waybill Number**		
MRC Sed. Sampling, Middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: pp metals	PAHs	PCBs	TOC	Special Instructions/ Conditions of Receipt
Middle River Downstream SS	8/20/10	1337			X		X						X	X	X	X	
" " " 01	↓	1339			↓		↓						X	X	X		
" " 02	↓	1341			↓		↓						X	X	X		
" " 04	8/20/10	1343			X		X						X	X	X		
~~MR-Dup-1-SS~~																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/20/10	1520	1. Received By	8/20/10	1520
2. Relinquished By	8/20/10	1615	2. Received By		
3. Relinquished By			3. Received By	8/21/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(1 - 272)

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COH210447

TestAmerica Pittsburgh

Cooler Receipt Form

Client: TT Project: Quote: 96823

Cooler Rec'd & Opened for Temp. Check on: 8/21/10

Coolers Opened and Unpacked on: 8/21/10 By: JS

(Signature)

TestAmerica Pittsburgh Lot Number: COH210447

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?		✓	
	If YES, how many and where? Quantity __ Location			
	Were signatures and date correct?			
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? BUBBLE BAGS			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?	✓		
9.	Were all bottles sealed in separate plastic bags?	✓		
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?			
14.	Were all VOA vials checked for the presence of air bubbles?			✓
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: FEDEX UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies:

Level 2 Review

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

TestAmerica Pittsburgh

Cooler Receipt Form

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	hardness PH<2	Residual CL	

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	2.6°	8

Sample	Lot Number**

*Acceptable Temperature Range: < 0-6 °C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

X:\Forms\Cooler Receipt Form_updated 102010.DOC
Rev. 1, 01/20/2010

METHODS SUMMARY

C0H210447

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H210447

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L50XR	001	SD-85-SS	08/19/10	16:32
L50XT	002	SD-85-01	08/19/10	16:34
L50XW	003	SD-85-02	08/19/10	16:36
L50XX	004	SD-85-04	08/19/10	16:38
L50X0	005	SD-83-SS	08/20/10	10:25
L50X1	006	SD-83-01	08/20/10	10:27
L50X2	007	SD-83-02	08/20/10	10:29
L50X3	008	SD-83-04	08/20/10	10:31
L50X4	009	SD-84-SS	08/20/10	11:03
L50X5	010	SD-84-01	08/20/10	11:05
L50X6	011	SD-84-02	08/20/10	11:07
L50X7	012	MIDDLE RIVER DOWNSTREAM SS	08/20/10	13:37
L500A	013	MIDDLE RIVER DOWNSTREAM 01	08/20/10	13:39
L500D	014	MIDDLE RIVER DOWNSTREAM 02	08/20/10	13:41
L500E	015	MIDDLE RIVER DOWNSTREAM 04	08/20/10	13:43

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HOLDTIME

SDG C0H210447

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
AVS	UMOLE	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
SEM	UMOLE	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
HG	MG/KG	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
M	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
TOC	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
TOC	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/03/2010	09/08/2010	14	5	19
TOC	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/07/2010	09/08/2010	18	1	19
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-85-SS	C0H210447001	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-04	C0H210447004	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-04	C0H210447004	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-02	C0H210447003	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-02	C0H210447003	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-01	C0H210447002	SUR	08/19/2010	08/24/2010	08/31/2010	5	7	12
SIM	UG/KG	SD-85-01	C0H210447002	NM	08/19/2010	08/24/2010	08/31/2010	5	7	12
SIM	UG/KG	SD-84-SS	C0H210447009	SUR	08/20/2010	08/24/2010	08/31/2010	4	7	11
SIM	UG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	08/24/2010	08/31/2010	4	7	11
SIM	UG/KG	SD-84-02	C0H210447011	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-84-02	C0H210447011	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-84-01	C0H210447010	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-01	C0H210447006	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447014	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447015	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-84-01	C0H210447010	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447012	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-SS	C0H210447005	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-01	C0H210447006	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-02	C0H210447007	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-02	C0H210447007	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-04	C0H210447008	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-83-04	C0H210447008	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447013	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
PCB	UG/KG	SD-84-SS	C0H210447009	SUR	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	SD-83-04	C0H210447008	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-85-SS	C0H210447001	SUR	08/19/2010	08/24/2010	09/02/2010	5	9	14
PCB	UG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	08/24/2010	09/02/2010	5	9	14
PCB	UG/KG	SD-85-04	C0H210447004	SUR	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-85-04	C0H210447004	NM	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-85-02	C0H210447003	SUR	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-85-02	C0H210447003	NM	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-85-01	C0H210447002	SUR	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-85-01	C0H210447002	NM	08/19/2010	08/24/2010	09/01/2010	5	8	13
PCB	UG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	SD-84-02	C0H210447011	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-84-01	C0H210447010	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-84-01	C0H210447010	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-84-02	C0H210447011	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	SD-83-04	C0H210447008	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-83-02	C0H210447007	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	SD-83-02	C0H210447007	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	SD-83-01	C0H210447006	SUR	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	SD-83-01	C0H210447006	NM	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447012	SUR	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447015	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447014	SUR	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	08/24/2010	09/01/2010	4	8	12
PCB	UG/KG	MIDDLE RIVER DOWNST	C0H210447013	SUR	08/20/2010	08/24/2010	09/02/2010	4	9	13
PCB	UG/KG	SD-83-SS	C0H210447005	SUR	08/20/2010	08/24/2010	09/02/2010	4	9	13

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0604DF1 DFTPP Injection Date: 06/04/10

Instrument ID: 731 DFTPP Injection Time: 0711

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.5
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Mass 69 relative abundance	42.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	40.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	24.3
365	Greater than 1.0% of mass 198	2.64
441	Present, but less than mass 443	7.9
442	40.0 - 99.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	9.8 (18.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0.4	SSTD0.4	V0604IC1	06/04/10	0727
02	SSTD2.0	SSTD2.0	V0604IC2	06/04/10	0747
03	SSTD4.0	SSTD4.0	V0604IC3	06/04/10	0808
04	SSTD10	SSTD10	V0604IC4	06/04/10	0829
05	SSTD20	SSTD20	V0604IC5	06/04/10	0850
06	SSTD40	SSTD40	V0604IC6	06/04/10	0911
07	SSTD60	SSTD60	V0604IC7	06/04/10	0932
08	SSTD80	SSTD80	V0604IC8	06/04/10	0953
09					
10					
11					
12					
13					
14					
15					
16					
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19					
20					
21					
22					

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.29155	0.32808	0.32889	0.35242	0.36130	0.37216	0.36701	0.38264	AVRG		0.34801		8.61425	
49 Benzoic Acid	+++++	0.13397	0.15895	0.17115	0.19333	0.19483	0.19593	0.18882	AVRG		0.17671		13.25932	
50 1,2,4-Trichlorobenzene	0.44560	0.41197	0.40508	0.42154	0.44804	0.44900	0.44791	0.46892	AVRG		0.43726		5.01173	
51 Naphthalene	1.11327	1.03834	1.04638	1.06512	1.11311	1.15604	1.17490	1.25449	AVRG		1.12020		6.54192	
52 4-Chloroaniline	0.35163	0.40134	0.40585	0.41230	0.43819	0.45092	0.45102	0.47796	AVRG		0.42365		9.26491	

TestAmerica Pittsburgh

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	0.21453	0.23308	0.22598	0.26203	0.26612	0.28241						
	0.27868	0.27821					AVRG		0.25513		10.45890	
79 Acenaphthylene	1.57946	1.56872	1.58694	1.56688	1.59435	1.71821						
	1.73038	1.78358					AVRG		1.64106		5.34636	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	+++++	0.24526	0.23923	0.26426	0.27325	0.27948						
	0.27230	0.27145					AVRG		0.26361		5.82301	
82 Acenaphthene	1.02067	1.01984	1.01431	1.05707	1.06299	1.12184						
	1.12807	1.17606					AVRG		1.07511		5.59922	
83 2,4-Dinitrophenol	5945	15425	53358	106075	175947	220429						
	351373	485102					QUAD	0.24015	5.15773	-0.11946	0.99885	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
92 2-Naphthylamine	0.44999	0.49344	0.50208	0.50685	0.48561	0.48147						
	0.44492	0.43667					AVRG		0.47513		5.75941	
93 Diethylphthalate	1.15510	1.29536	1.19958	1.23522	1.26497	1.29925						
	1.32167	1.32939					AVRG		1.26257		4.88697	
94 Fluorene	1.39925	1.22455	1.29664	1.33785	1.34802	1.47652						
	1.53382	1.62228					AVRG		1.40487		9.35905	
95 4-Chlorophenyl-phenylether	0.80999	0.74364	0.74028	0.74888	0.78822	0.82237						
	0.82969	0.85167					AVRG		0.79184		5.46587	
96 4-Nitroaniline	0.19189	0.26562	0.26484	0.25590	0.27417	0.30776						
	0.29501	0.31139					AVRG		0.27082		14.04167	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	0.09881	0.12599	0.14045	0.14020	0.14982						
	0.15224	0.15345					AVRG		0.13728		14.16430	

TestAmerica Pittsburgh

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	15003	35612	97319	192411	316223	398001						
	625719	896311					QUAD	0.16356	5.17930	-0.11509	0.99935	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.00480	1.14264	1.11199	1.17572	1.18241	1.18138						
	1.23415	1.23307					AVRG		1.15827		6.42043	
116 Anthracene	1.05201	1.18076	1.12841	1.21882	1.19107	1.22734						
	1.26697	1.25934					AVRG		1.19059		6.01283	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.86998	0.96974	0.96784	0.96341	0.97641	0.97372						
	1.02994	0.99454					AVRG		0.96820		4.66430	
120 Di-n-Butylphthalate	0.86186	1.02009	1.10413	1.14220	1.20161	1.21043						
	1.26296	1.23445					AVRG		1.12972		11.82767	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.26157	1.29249	1.32966	1.32856	1.37788	1.39686						
	1.46781	1.42899					AVRG		1.36048		5.13879	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
124 Benzidine	+++++	+++++	40351	143236	357935	788305						
	1280605	1775699					QUAD	0.37300	3.14176	-0.06554	0.99922	
125 Pyrene	1.02574	1.09780	1.12184	1.16541	1.17507	1.14596						
	1.18337	1.21808					AVRG		1.14166		5.23791	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\8270ll.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
130 Famphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.27631	0.38682	0.39782	0.43034	0.43034	0.42612						
	0.44859	0.45286					AVRG		0.40615		14.06845	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	+++++	0.31480	0.37288	0.39483	0.42824	0.45493						
	0.47542	0.47486					AVRG		0.41657		14.27206	
136 Benzo(a)Anthracene	1.07822	1.17092	1.15159	1.18757	1.13322	1.17048						
	1.20643	1.23036					AVRG		1.16610		4.00554	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
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Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
137 Chrysene	0.98456	1.12098	1.14919	1.12181	1.14506	1.12478						
	1.22015	1.23644					AVRG		1.13787		6.71645	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.44441	0.52446	0.55231	0.59289	0.62301	0.61572						
	0.63678	0.64600					AVRG		0.57945		11.86850	
140 Di-n-octylphthalate	+++++	0.75255	0.81084	0.93457	1.02772	1.02719						
	1.00144	1.05257					AVRG		0.94385		12.49767	
141 Benzo(b)fluoranthene	1.24225	1.06996	1.14476	1.30795	1.35668	1.28608						
	1.29812	1.47684					AVRG		1.27283		9.81242	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	1.03562	1.37461	1.39261	1.40862	1.43393	1.50040						
	1.39934	1.33943					AVRG		1.36057		10.24515	

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
143 7,12-dimethylbenz[a]anthracen	0.48215	0.58640	0.59226	0.62697	0.64700	0.64250						
	0.62276	0.64033					AVRG		0.60505		9.01275	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	1.06881	1.09239	1.06286	1.08262	1.19586	1.17504						
	1.15486	1.18017					AVRG		1.12658		4.89857	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	27999	163296	330803	877322	1954853	3970013						
	6550756	8427755					QUAD	0.09448	0.68724	0.00200	0.99955	
150 Dibenz(a,h)anthracene	17199	132744	264678	719700	1590355	3196126						
	5211060	6784124					QUAD	0.08443	0.85944	0.00292	0.99982	

TestAmerica Pittsburgh

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Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\8270ll.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	22098	150385	299801	793288	1705188	3458604						
	5604086	7281551					QUAD	0.07437	0.79454	0.00312	0.99981	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0830DF1 DFTPP Injection Date: 08/30/10

Instrument ID: 731 DFTPP Injection Time: 1003

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.8
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	45.9
70	Less than 2.0% of mass 69	0.5 (1.0)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	23.9
365	Greater than 1.0% of mass 198	2.43
441	Present, but less than mass 443	7.0
442	40.0 - 99.0% of mass 198	47.8
443	17.0 - 23.0% of mass 442	9.2 (19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0.4	SSTD0.4	V0830IC1	08/30/10	1020
02	SSTD2.0	SSTD2.0	V0830IC2	08/30/10	1042
03	SSTD4.0	SSTD4.0	V0830IC3	08/30/10	1103
04	SSTD10	SSTD10	V0830IC4	08/30/10	1125
05	SSTD20	SSTD20	V0830IC5	08/30/10	1146
06	SSTD40	SSTD40	V0830IC6	08/30/10	1208
07	SSTD60	SSTD60	V0830IC7	08/30/10	1230
08	SSTD80	SSTD80	V0830IC8	08/30/10	1251
09					
10					
11					
12					
13					
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15					
16					
17					
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19					
20					
21					
22					

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.29385	0.31695	0.30448	0.32811	0.30969	0.32011						
	0.32648	0.33864					AVRG		0.31729		4.51502	
49 Benzoic Acid	0.12825	0.14265	0.16824	0.17287	0.18386	0.19500						
	0.19362	0.18838					AVRG		0.17161		14.26381	
50 1,2,4-Trichlorobenzene	0.38873	0.38870	0.38886	0.38607	0.37679	0.38520						
	0.39608	0.40167					AVRG		0.38901		1.90117	
51 Naphthalene	1.00725	1.02275	1.02260	1.03190	1.05622	1.08736						
	1.14026	1.09785					AVRG		1.05827		4.37012	
52 4-Chloroaniline	0.41801	0.43006	0.42683	0.42547	0.44105	0.44951						
	0.45490	0.46071					AVRG		0.43832		3.54155	

TestAmerica Pittsburgh

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Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	0.17629	0.25194	0.26070	0.26123	0.26028	0.27795						
	0.26835	0.27990					AVRG		0.25458		12.96626	
79 Acenaphthylene	1.58590	1.64577	1.73304	1.69537	1.69340	1.76699						
	1.81577	1.80313					AVRG		1.71742		4.57491	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	0.20207	0.25690	0.27711	0.27221	0.25718	0.27107						
	0.26161	0.27114					AVRG		0.25866		9.29953	
82 Acenaphthene	1.09841	1.05547	1.11365	1.04496	1.06187	1.09180						
	1.09300	1.11760					AVRG		1.08459		2.50871	
83 2,4-Dinitrophenol	11138	23156	77460	137812	275155	320338						
	563036	747955					QUAD	0.15244	6.40992	-0.53007	0.99935	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
92 2-Naphthylamine	1.06564	1.10094	1.11607	0.99852	0.95205	0.90728						
	0.81797	0.81781					AVRG		0.97204		12.23065	
93 Diethylphthalate	1.29068	1.33464	1.35232	1.32358	1.28194	1.31463						
	1.31190	1.32245					AVRG		1.31652		1.71848	
94 Fluorene	1.37483	1.44744	1.43257	1.33797	1.32135	1.35318						
	1.36009	1.40972					AVRG		1.37965		3.30369	
95 4-Chlorophenyl-phenylether	0.78531	0.77707	0.77011	0.73071	0.72129	0.72235						
	0.72333	0.72774					AVRG		0.74474		3.70514	
96 4-Nitroaniline	0.23448	0.28610	0.28687	0.28371	0.27427	0.28737						
	0.27606	0.28104					AVRG		0.27624		6.35994	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	0.09675	0.11233	0.12703	0.13147	0.13069						
	0.13881	0.13735					AVRG		0.12492		12.14125	

TestAmerica Pittsburgh

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	0.10770	0.13657	0.15071	0.15449	0.15937	0.16379						
	0.17122	0.16976					AVRG		0.15170		13.84056	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.13443	1.13380	1.07960	1.11361	1.11779	1.13774						
	1.16165	1.15887					AVRG		1.12969		2.33888	
116 Anthracene	1.10098	1.14154	1.13591	1.14297	1.12385	1.13280						
	1.15656	1.06687					AVRG		1.12519		2.54248	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	1.02425	0.99031	0.97505	1.00601	0.94834	0.96679						
	0.99280	0.98937					AVRG		0.98662		2.37502	
120 Di-n-Butylphthalate	1.06700	1.20459	1.17559	1.25955	1.21962	1.24089						
	1.25853	1.14144					AVRG		1.19590		5.53121	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.31847	1.40696	1.33307	1.43590	1.32478	1.34908						
	1.34847	1.21552					AVRG		1.34153		4.88433	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
124 Benzidine	+++++	0.29312	0.30336	0.31426	0.32761	0.36124						
	0.36231	0.37479					AVRG		0.33382		9.66653	
125 Pyrene	1.08656	1.12899	1.14506	1.15895	1.20806	1.18391						
	1.15518	1.15022					AVRG		1.15212		3.12668	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
130 Pamphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	0.36593	0.39914	0.41314	0.44586	0.44732	0.44640						
	0.46252	0.47957					AVRG		0.43248		8.57457	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	0.27096	0.30426	0.32728	0.34384	0.37202	0.38677						
	0.37897	0.38169					AVRG		0.34572		12.18714	
136 Benzo(a)Anthracene	1.08642	1.10645	1.07595	1.07173	1.14218	1.13240						
	1.22273	1.18791					AVRG		1.12822		4.83762	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
137 Chrysene	1.12671	1.07808	1.10686	1.11115	1.07610	1.10505						
	1.09057	1.03607					AVRG		1.09132		2.57683	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.54537	0.55769	0.57037	0.62251	0.62331	0.64210						
	0.66342	0.69439					AVRG		0.61490		8.61235	
140 Di-n-octylphthalate	0.95846	0.94790	0.88506	1.00357	1.11567	1.15122						
	1.23610	1.19959					AVRG		1.06220		12.25142	
141 Benzo(b)fluoranthene	1.19120	1.24857	1.14934	1.20928	1.34360	1.36458						
	1.26289	1.29205					AVRG		1.25769		5.90454	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	1.27031	1.33622	1.48213	1.47792	1.36538	1.33018						
	1.41348	1.43554					AVRG		1.38890		5.45858	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
143 7,12-dimethylbenz[a]anthracen	0.55710	0.57850	0.58884	0.60416	0.61650	0.59804						
	0.59004	0.59685					AVRG		0.59126		3.01037	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	0.83468	0.88879	0.87930	0.93239	1.01765	1.04511						
	1.03364	1.05386					AVRG		0.96068		9.04452	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	0.82090	0.87677	0.91534	1.01941	1.03661	1.11543						
	1.11886	1.17259					AVRG		1.00949		12.56721	
150 Dibenz(a,h)anthracene	0.73387	0.72477	0.74032	0.81832	0.84969	0.93076						
	0.94395	0.98941					AVRG		0.84139		12.41579	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 30-AUG-2010 10:20
End Cal Date : 30-AUG-2010 12:51
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V083010.b\827011.m
Last Edit : 30-Aug-2010 13:11 piccolinov

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	0.75262	0.75973	0.79640	0.85205	0.90224	0.96934						
	0.96635	1.02801					AVRG		0.87834		11.88454	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0827DF1 DFTPP Injection Date: 08/27/10

Instrument ID: 731 DFTPP Injection Time: 0917

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.5
68	Less than 2.0% of mass 69	0.5 (0.8)1
69	Mass 69 relative abundance	66.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	24.6
365	Greater than 1.0% of mass 198	4.26
441	Present, but less than mass 443	7.5
442	40.0 - 99.0% of mass 198	56.5
443	17.0 - 23.0% of mass 442	11.8 (20.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08270CC	08/27/10	1020
02	INTRA-LAB BL	L53AP1AA	V0827007	08/27/10	1104
03	INTRA-LAB CH	L53AP1AC	V0827008	08/27/10	1148
04	INTRA-LAB CH	L53AP1AD	V0827009	08/27/10	1210
05	SD-85-SS	L50XR1AD	V0827010	08/27/10	1400
06	SD-85-02	L50XW1AJ	V0827012	08/27/10	1445
07	SD-85-04	L50XX1AJ	V0827013	08/27/10	1507
08	SD-83-SS	L50X01AD	V0827014	08/27/10	1529
09	SD-83-01	L50X11AD	V0827015	08/27/10	1551
10	SD-83-02	L50X21AD	V0827016	08/27/10	1613
11	SD-83-04	L50X31AD	V0827017	08/27/10	1636
12	SD-84-01	L50X51AD	V0827019	08/27/10	1721
13	SD-84-02	L50X61AD	V0827020	08/27/10	1743
14	MIDDLE RIVER	L50X71AD	V0827021	08/27/10	1806
15	MIDDLE RIVER	L500A1AD	V0827022	08/27/10	1828
16	MIDDLE RIVER	L500D1AD	V0827023	08/27/10	1850
17	MIDDLE RIVER	L500E1AD	V0827024	08/27/10	1912
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 27-AUG-2010 10:20
Lab File ID: V08270CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082710.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	4.00000	3.76209	0.48745	0.010	5.94784	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.61546	0.69503	0.69503	0.010	-12.92919	25.00000	Averaged	
9 Pyridine	1.20894	1.44816	1.44816	0.010	-19.78724	25.00000	Averaged	
16 Methyl methanesulfonate	0.75953	0.87988	0.87988	0.010	-15.84538	25.00000	Averaged	
206 Benzaldehyde	4.00000	5.10016	0.81420	0.010	-27.50389	25.00000	Quadratic	<-
21 Aniline	1.78238	1.75640	1.75640	0.010	1.45780	25.00000	Averaged	
22 Phenol	1.78991	1.76930	1.76930	0.010	1.15152	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.11989	1.14634	1.14634	0.010	-2.36202	25.00000	Averaged	
24 2-Chlorophenol	1.36602	1.33986	1.33986	0.010	1.91568	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.69968	1.66881	1.66881	0.010	1.81638	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.69283	1.68210	1.68210	0.010	0.63404	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.61118	1.58214	1.58214	0.010	1.80270	25.00000	Averaged	
29 Benzyl Alcohol	0.83078	0.42897	0.42897	0.010	48.36481	25.00000	Averaged	<-
30 2-Methylphenol	1.23988	1.25513	1.25513	0.010	-1.22982	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.37148	1.55827	1.55827	0.010	-13.61936	25.00000	Averaged	
37 Acetophenone	1.79055	1.79174	1.79174	0.010	-0.06620	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95688	1.02601	1.02601	0.050	-7.22485	25.00000	Averaged	
192 4-Methylphenol	1.33473	1.23804	1.23804	0.010	7.24408	25.00000	Averaged	
34 Hexachloroethane	0.72297	0.75460	0.75460	0.010	-4.37407	25.00000	Averaged	
35 Nitrobenzene	0.44489	0.50633	0.50633	0.010	-13.80976	25.00000	Averaged	
41 Isophorone	0.69909	0.74017	0.74017	0.010	-5.87586	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.18783	0.18783	0.010	6.05241	20.00000	Averaged	
43 2,4-Dimethylphenol	0.40825	0.40788	0.40788	0.010	0.09021	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.40598	0.38836	0.38836	0.010	4.33992	25.00000	Averaged	
48 2,4-Dichlorophenol	0.34801	0.31396	0.31396	0.010	9.78235	20.00000	Averaged	
49 Benzoic Acid	0.17671	0.12351	0.12351	0.010	30.10737	25.00000	Averaged	<-
50 1,2,4-Trichlorobenzene	0.43726	0.37568	0.37568	0.010	14.08321	25.00000	Averaged	
51 Naphthalene	1.12020	1.01989	1.01989	0.010	8.95474	25.00000	Averaged	
52 4-Chloroaniline	0.42365	0.38550	0.38550	0.010	9.00580	25.00000	Averaged	
54 2,6-Dichlorophenol	0.35229	0.29648	0.29648	0.010	15.84321	25.00000	Averaged	
56 Hexachlorobutadiene	0.33154	0.30987	0.30987	0.010	6.53615	20.00000	Averaged	
208 Caprolactam	0.08094	0.07475	0.07475	0.010	7.64473	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.32447	0.30298	0.30298	0.010	6.62131	20.00000	Averaged	
62 2-Methylnaphthalene	0.73380	0.63414	0.63414	0.010	13.58190	25.00000	Averaged	
63 1-Methylnaphthalene	0.70190	0.61402	0.61402	0.010	12.51984	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.96101	0.36409	0.050	0.97475	25.00000	Quadratic	
66 2,4,6-Trichlorophenol	0.42762	0.40955	0.40955	0.010	4.22533	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.46737	0.42780	0.42780	0.010	8.46717	25.00000	Averaged	
209 1,1'-Biphenyl	1.48749	1.39243	1.39243	0.010	6.39046	25.00000	Averaged	
70 2-Chloronaphthalene	1.20959	1.18756	1.18756	0.010	1.82143	25.00000	Averaged	
73 2-Nitroaniline	0.32746	0.44977	0.44977	0.010	-37.35243	25.00000	Averaged	<-
76 Dimethylphthalate	1.26010	1.24345	1.24345	0.010	1.32127	25.00000	Averaged	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 27-AUG-2010 10:20
Lab File ID: V08270CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082710.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 2,6-Dinitrotoluene	0.25513	0.25698	0.25698	0.010	-0.72360	25.00000	Averaged	
79 Acenaphthylene	1.64106	1.52179	1.52179	0.010	7.26831	25.00000	Averaged	
81 3-Nitroaniline	0.26361	0.22252	0.22252	0.010	15.58472	25.00000	Averaged	
82 Acenaphthene	1.07511	1.05857	1.05857	0.010	1.53823	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	8.54894	0.12898	0.050	14.51058	25.00000	Quadratic	
85 4-Nitrophenol	0.24926	0.26187	0.26187	0.050	-5.06233	25.00000	Averaged	
86 Dibenzofuran	1.69916	1.53444	1.53444	0.010	9.69398	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.35894	0.34116	0.34116	0.010	4.95241	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	0.43029	0.33376	0.33376	0.010	22.43405	25.00000	Averaged	
88 2,3,4,6-Tetrachlorophenol	0.44587	0.37198	0.37198	0.010	16.57223	25.00000	Averaged	
92 2-Naphthylamine	0.47513	0.35882	0.35882	0.010	24.47996	25.00000	Averaged	
93 Diethylphthalate	1.26257	1.24797	1.24797	0.010	1.15585	25.00000	Averaged	
94 Fluorene	1.40487	1.21174	1.21174	0.010	13.74720	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.79184	0.68655	0.68655	0.010	13.29711	25.00000	Averaged	
96 4-Nitroaniline	0.27082	0.23644	0.23644	0.010	12.69500	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	0.13728	0.13073	0.13073	0.010	4.77072	25.00000	Averaged	
99 N-Nitrosodiphenylamine (1)	0.52805	0.51805	0.51805	0.010	1.89347	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.81431	1.06017	1.06017	0.010	-30.19249	25.00000	Averaged	<-
106 4-Bromophenyl-phenylether	0.27757	0.25493	0.25493	0.010	8.15658	25.00000	Averaged	
107 Hexachlorobenzene	0.27530	0.25526	0.25526	0.010	7.27912	25.00000	Averaged	
210 Atrazine	0.11960	0.10795	0.10795	0.010	9.73472	25.00000	Averaged	
111 Pentachlorophenol	10.00000	8.94184	0.14799	0.010	10.58163	20.00000	Quadratic	
115 Phenanthrene	1.15827	1.08874	1.08874	0.010	6.00303	25.00000	Averaged	
116 Anthracene	1.19059	1.12093	1.12093	0.010	5.85108	25.00000	Averaged	
119 Carbazole	0.96820	0.89450	0.89450	0.010	7.61205	25.00000	Averaged	
120 Di-n-Butylphthalate	1.12972	1.13615	1.13615	0.010	-0.56921	25.00000	Averaged	
123 Fluoranthene	1.36048	1.16851	1.16851	0.010	14.10994	20.00000	Averaged	
124 Benzidine	4.00000	4.91711	0.15407	0.010	-22.92765	25.00000	Quadratic	
125 Pyrene	1.14166	1.16414	1.16414	0.010	-1.96938	25.00000	Averaged	
131 Butylbenzylphthalate	0.40615	0.46960	0.46960	0.010	-15.62280	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.41657	0.39380	0.39380	0.010	5.46584	25.00000	Averaged	
136 Benzo(a)Anthracene	1.16610	1.08784	1.08784	0.010	6.71127	25.00000	Averaged	
137 Chrysene	1.13787	0.95965	0.95965	0.010	15.66284	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.57945	0.67034	0.67034	0.010	-15.68535	25.00000	Averaged	
140 Di-n-octylphthalate	0.94385	1.09705	1.09705	0.010	-16.23093	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27283	1.29334	1.29334	0.010	-1.61115	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.36057	1.12977	1.12977	0.010	16.96366	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.60505	0.49184	0.49184	0.010	18.71078	25.00000	Averaged	
146 Benzo(a)pyrene	1.12658	0.95247	0.95247	0.010	15.45455	20.00000	Averaged	
149 Indeno(1,2,3-cd)pyrene	4.00000	3.95737	1.16266	0.010	1.06563	25.00000	Quadratic	
150 Dibenz(a,h)anthracene	4.00000	3.99710	0.96466	0.010	0.07257	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	3.68146	0.96930	0.010	7.96361	25.00000	Quadratic	

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 27-AUG-2010 10:20
Lab File ID: V08270CC.D Init. Cal. Date(s): 04-JUN-2010 04-JUN-2010
Analysis Type: Init. Cal. Times: 07:27 09:53
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V082710.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.44170	0.49227	0.49227	0.010	-11.44817	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.38058	1.32053	1.32053	0.010	4.34909	25.00000	Averaged
$ 156 Terphenyl-d14	0.82070	0.79295	0.79295	0.010	3.38031	25.00000	Averaged
$ 157 Phenol-d5	1.61977	1.67812	1.67812	0.010	-3.60231	25.00000	Averaged
$ 158 2-Fluorophenol	1.24948	1.33619	1.33619	0.010	-6.93986	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.11424	0.11724	0.11724	0.010	-2.62063	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.36640	1.32942	1.32942	0.010	2.70652	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.05646	0.98117	0.98117	0.010	7.12681	25.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L53AP1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: V0827007.

Lot Number: C0H210447

Date Analyzed: 08/27/10

Time Analyzed: 11:04

Matrix: SOLID

Date Extracted:08/24/10

GC Column: DB5 ID: .25

Extraction Method:

Instrument ID: 731

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SD-85-SS	L50XR1AD	V0827010.	08/27/10	14:00
02	SD-85-01	L50XT1AJ	V0831002.	08/31/10	14:04
03	SD-85-02	L50XW1AJ	V0827012.	08/27/10	14:45
04	SD-85-04	L50XX1AJ	V0827013.	08/27/10	15:07
05	SD-83-SS	L50X01AD	V0827014.	08/27/10	15:29
06	SD-83-01	L50X11AD	V0827015.	08/27/10	15:51
07	SD-83-02	L50X21AD	V0827016.	08/27/10	16:13
08	SD-83-04	L50X31AD	V0827017.	08/27/10	16:36
09	SD-84-SS	L50X41AD	V0831003.	08/31/10	14:26
10	SD-84-01	L50X51AD	V0827019.	08/27/10	17:21
11	SD-84-02	L50X61AD	V0827020.	08/27/10	17:43
12	MIDDLE RIVER DOWNSTREAM SS	L50X71AD	V0827021.	08/27/10	18:06
13	MIDDLE RIVER DOWNSTREAM 01	L500A1AD	V0827022.	08/27/10	18:28
14	MIDDLE RIVER DOWNSTREAM 02	L500D1AD	V0827023.	08/27/10	18:50
15	MIDDLE RIVER DOWNSTREAM 04	L500E1AD	V0827024.	08/27/10	19:12
16	CHECK SAMPLE	L53AP1AC C	V0827008.	08/27/10	11:48
17	DUPLICATE CHECK	L53AP1AD L	V0827009.	08/27/10	12:10
18					
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COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H210447 **Work Order #...:** L53AP1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H240000-295

Prep Date.....: 08/24/10 **Analysis Time..:** 11:04
Analysis Date..: 08/27/10 **Prep Batch #...:** 0236295 **Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5 **Initial Wgt/Vol:** 30 g **Instrument ID..:** 731
Analyst ID.....: 003200

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	87	(27 - 110)
Terphenyl-d14	102	(21 - 130)
2-Fluorobiphenyl	79	(28 - 108)
2-Fluorophenol	81	(28 - 107)
Phenol-d5	88	(30 - 112)
2,4,6-Tribromophenol	78	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: V0831DF1 DFTPP Injection Date: 08/31/10

Instrument ID: 731 DFTPP Injection Time: 1055

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	45.3
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	40.0 - 60.0% of mass 198	42.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 1.0% of mass 198	2.50
441	Present, but less than mass 443	6.6
442	40.0 - 99.0% of mass 198	44.7
443	17.0 - 23.0% of mass 442	8.9 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4.0	SSTD4.0	V08310CC	08/31/10	1111
02	SD-85-01	L50XT1AJ	V0831002	08/31/10	1404
03	SD-84-SS	L50X41AD	V0831003	08/31/10	1426
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i
Lab File ID: V08310CC.D
Analysis Type:
Lab Sample ID: SSTD4.0
Method: \\PITSVR06\D\chem\731.i\V083110.b\8270ll.m

Injection Date: 31-AUG-2010 11:11
Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Init. Cal. Times: 10:20 12:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.39599	0.39685	0.39685	0.010	-0.21597	25.00000	Averaged
10 N-Nitrosodimethylamine	0.54285	0.55832	0.55832	0.010	-2.85040	25.00000	Averaged
9 Pyridine	1.10584	1.12115	1.12115	0.010	-1.38384	25.00000	Averaged
16 Methyl methanesulfonate	0.76389	0.75960	0.75960	0.010	0.56189	25.00000	Averaged
206 Benzaldehyde	1.00567	0.96279	0.96279	0.010	4.26397	25.00000	Averaged
21 Aniline	2.01248	1.98831	1.98831	0.010	1.20061	25.00000	Averaged
22 Phenol	1.72046	1.71698	1.71698	0.010	0.20216	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.08576	1.16604	1.16604	0.010	-7.39372	25.00000	Averaged
24 2-Chlorophenol	1.31956	1.33648	1.33648	0.010	-1.28234	25.00000	Averaged
26 1,3-Dichlorobenzene	1.58885	1.59859	1.59859	0.010	-0.61269	25.00000	Averaged
27 1,4-Dichlorobenzene	1.63044	1.63019	1.63019	0.010	0.01577	20.00000	Averaged
28 1,2-Dichlorobenzene	1.54169	1.48899	1.48899	0.010	3.41864	25.00000	Averaged
29 Benzyl Alcohol	0.81108	0.73265	0.73265	0.010	9.66967	25.00000	Averaged
30 2-Methylphenol	1.20981	1.20291	1.20291	0.010	0.57073	25.00000	Averaged
31 2,2'-oxybis(1-Chloropropane	1.24426	1.21524	1.21524	0.010	2.33245	25.00000	Averaged
37 Acetophenone	1.88281	1.81363	1.81363	0.010	3.67467	25.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.95105	0.89905	0.89905	0.050	5.46761	25.00000	Averaged
192 4-Methylphenol	1.21791	1.10463	1.10463	0.010	9.30085	25.00000	Averaged
34 Hexachloroethane	0.73056	0.73816	0.73816	0.010	-1.03951	25.00000	Averaged
35 Nitrobenzene	0.40783	0.41793	0.41793	0.010	-2.47471	25.00000	Averaged
41 Isophorone	0.63912	0.62015	0.62015	0.010	2.96772	25.00000	Averaged
42 2-Nitrophenol	0.18697	0.18151	0.18151	0.010	2.92034	20.00000	Averaged
43 2,4-Dimethylphenol	0.39114	0.36825	0.36825	0.010	5.85066	25.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.37775	0.37061	0.37061	0.010	1.89140	25.00000	Averaged
48 2,4-Dichlorophenol	0.31729	0.31716	0.31716	0.010	0.04047	20.00000	Averaged
49 Benzoic Acid	0.17161	0.16490	0.16490	0.010	3.90697	25.00000	Averaged
50 1,2,4-Trichlorobenzene	0.38901	0.35661	0.35661	0.010	8.32992	25.00000	Averaged
51 Naphthalene	1.05827	0.99219	0.99219	0.010	6.24451	25.00000	Averaged
52 4-Chloroaniline	0.43832	0.41757	0.41757	0.010	4.73280	25.00000	Averaged
54 2,6-Dichlorophenol	0.31705	0.31648	0.31648	0.010	0.18182	25.00000	Averaged
56 Hexachlorobutadiene	0.27960	0.28151	0.28151	0.010	-0.68385	20.00000	Averaged
208 Caprolactam	0.08094	0.07437	0.07437	0.010	8.12382	25.00000	Averaged
59 4-Chloro-3-Methylphenol	0.32127	0.29984	0.29984	0.010	6.67275	20.00000	Averaged
62 2-Methylnaphthalene	0.74178	0.71341	0.71341	0.010	3.82445	25.00000	Averaged
63 1-Methylnaphthalene	0.71785	0.69013	0.69013	0.010	3.86189	25.00000	Averaged
64 Hexachlorocyclopentadiene	0.47365	0.45121	0.45121	0.050	4.73720	25.00000	Averaged
66 2,4,6-Trichlorophenol	0.40036	0.40213	0.40213	0.010	-0.44108	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.41524	0.41063	0.41063	0.010	1.11069	25.00000	Averaged
209 1,1'-Biphenyl	1.37815	1.35975	1.35975	0.010	1.33515	25.00000	Averaged
70 2-Chloronaphthalene	1.12911	1.14544	1.14544	0.010	-1.44599	25.00000	Averaged
73 2-Nitroaniline	0.32323	0.33058	0.33058	0.010	-2.27347	25.00000	Averaged
76 Dimethylphthalate	1.27150	1.28238	1.28238	0.010	-0.85570	25.00000	Averaged

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 31-AUG-2010 11:11
Lab File ID: V08310CC.D Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Analysis Type: Init. Cal. Times: 10:20 12:51
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V083110.b\8270ll.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
78 2,6-Dinitrotoluene	0.25458	0.23082	0.23082	0.010	9.33481	25.00000	Averaged
79 Acenaphthylene	1.71742	1.67932	1.67932	0.010	2.21874	25.00000	Averaged
81 3-Nitroaniline	0.25866	0.28372	0.28372	0.010	-9.68675	25.00000	Averaged
82 Acenaphthene	1.08459	1.06871	1.06871	0.010	1.46426	20.00000	Averaged
83 2,4-Dinitrophenol	10.00000	9.52715	0.13139	0.050	4.72850	25.00000	Quadratic
85 4-Nitrophenol	0.23688	0.25071	0.25071	0.050	-5.83828	25.00000	Averaged
86 Dibenzofuran	1.70142	1.70227	1.70227	0.010	-0.04991	25.00000	Averaged
87 2,4-Dinitrotoluene	0.37664	0.35980	0.35980	0.010	4.47254	25.00000	Averaged
91 2,3,5,6-Tetrachlorophenol	0.40537	0.38971	0.38971	0.010	3.86299	25.00000	Averaged
88 2,3,4,6-Tetrachlorophenol	0.39659	0.40860	0.40860	0.010	-3.02811	25.00000	Averaged
92 2-Naphthylamine	0.97204	1.04270	1.04270	0.010	-7.26968	25.00000	Averaged
93 Diethylphthalate	1.31652	1.36094	1.36094	0.010	-3.37420	25.00000	Averaged
94 Fluorene	1.37965	1.38756	1.38756	0.010	-0.57334	25.00000	Averaged
95 4-Chlorophenyl-phenylether	0.74474	0.76117	0.76117	0.010	-2.20603	25.00000	Averaged
96 4-Nitroaniline	0.27624	0.28620	0.28620	0.010	-3.60513	25.00000	Averaged
98 4,6-Dinitro-2-methylphenol	0.12492	0.12041	0.12041	0.010	3.61225	25.00000	Averaged
99 N-Nitrosodiphenylamine (1)	0.47503	0.44173	0.44173	0.010	7.00963	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.80345	0.85268	0.85268	0.010	-6.12709	25.00000	Averaged
106 4-Bromophenyl-phenylether	0.22724	0.23300	0.23300	0.010	-2.53456	25.00000	Averaged
107 Hexachlorobenzene	0.23915	0.22840	0.22840	0.010	4.49593	25.00000	Averaged
210 Atrazine	0.21521	0.21553	0.21553	0.010	-0.15079	25.00000	Averaged
111 Pentachlorophenol	0.15170	0.15687	0.15687	0.010	-3.40669	20.00000	Averaged
115 Phenanthrene	1.12969	1.13442	1.13442	0.010	-0.41905	25.00000	Averaged
116 Anthracene	1.12519	1.11787	1.11787	0.010	0.65023	25.00000	Averaged
119 Carbazole	0.98662	1.02706	1.02706	0.010	-4.09886	25.00000	Averaged
120 Di-n-Butylphthalate	1.19590	1.20693	1.20693	0.010	-0.92179	25.00000	Averaged
123 Fluoranthene	1.34153	1.45810	1.45810	0.010	-8.68949	20.00000	Averaged
124 Benzidine	0.33382	0.30127	0.30127	0.010	9.75035	25.00000	Averaged
125 Pyrene	1.15212	1.06534	1.06534	0.010	7.53163	25.00000	Averaged
131 Butylbenzylphthalate	0.43248	0.41817	0.41817	0.010	3.30857	25.00000	Averaged
135 3,3'-Dichlorobenzidine	0.34572	0.32904	0.32904	0.010	4.82617	25.00000	Averaged
136 Benzo(a)Anthracene	1.12822	1.10692	1.10692	0.010	1.88785	25.00000	Averaged
137 Chrysene	1.09132	1.10633	1.10633	0.010	-1.37470	25.00000	Averaged
139 bis(2-ethylhexyl)Phthalate	0.61490	0.56319	0.56319	0.010	8.40909	25.00000	Averaged
140 Di-n-octylphthalate	1.06220	0.86269	0.86269	0.010	18.78224	20.00000	Averaged
141 Benzo(b)fluoranthene	1.25769	1.05758	1.05758	0.010	15.91111	25.00000	Averaged
142 Benzo(k)fluoranthene	1.38890	1.43461	1.43461	0.010	-3.29148	25.00000	Averaged
143 7,12-dimethylbenz[a]anthrac	0.59126	0.55346	0.55346	0.010	6.39287	25.00000	Averaged
146 Benzo(a)pyrene	0.96068	0.93721	0.93721	0.010	2.44313	20.00000	Averaged
149 Indeno(1,2,3-cd)pyrene	1.00949	0.95262	0.95262	0.010	5.63353	25.00000	Averaged
150 Dibenz(a,h)anthracene	0.84139	0.76315	0.76315	0.010	9.29814	25.00000	Averaged
151 Benzo(g,h,i)perylene	0.87834	0.83030	0.83030	0.010	5.47015	25.00000	Averaged

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 731.i Injection Date: 31-AUG-2010 11:11
Lab File ID: V08310CC.D Init. Cal. Date(s): 30-AUG-2010 30-AUG-2010
Analysis Type: Init. Cal. Times: 10:20 12:51
Lab Sample ID: SSTD4.0 Quant Type: ISTD
Method: \\PITSVR06\D\chem\731.i\V083110.b\827011.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 154 Nitrobenzene-d5	0.39896	0.40978	0.40978	0.010	-2.71000	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.28826	1.30574	1.30574	0.010	-1.35710	25.00000	Averaged
$ 156 Terphenyl-d14	0.79994	0.74607	0.74607	0.010	6.73512	25.00000	Averaged
$ 157 Phenol-d5	1.49251	1.46228	1.46228	0.010	2.02557	25.00000	Averaged
$ 158 2-Fluorophenol	1.13179	1.15110	1.15110	0.010	-1.70617	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.09604	0.09329	0.09329	0.010	2.86025	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.32998	1.32570	1.32570	0.010	0.32177	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.01230	1.05254	1.05254	0.010	-3.97516	25.00000	Averaged

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H210447

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	SD-85-SS	0 D	0 D	0 D	0 D	0 D	0 D	06
02	SD-85-01	71	68	70	67	72	76	00
03	SD-85-02	74	90	85	61	72	99	00
04	SD-85-04	86	79	76	75	76	84	00
05	SD-83-SS	0 D	0 D	0 D	0 D	0 D	0 D	06
06	SD-83-01	95	73	82	79	73	92	00
07	SD-83-02	83	77	80	73	73	90	00
08	SD-83-04	79	83	74	66	68	84	00
09	SD-84-SS	0 D	0 D	0 D	0 D	0 D	0 D	06
10	SD-84-01	107	79	95	91	85	95	00
11	SD-84-02	77	62	75	67	67	84	00
12	MIDDLE RIVER DOWNSTREAM SS	83	74	75	70	69	79	00
13	MIDDLE RIVER DOWNSTREAM 01	85	78	84	70	70	84	00
14	MIDDLE RIVER DOWNSTREAM 02	88	70	81	80	78	76	00
15	MIDDLE RIVER DOWNSTREAM 04	73	63	67	58	57	66	00
16	METHOD BLK. L53AP1AA	87	102	79	81	88	78	00
17	LCS L53AP1AC	93	86	89	78	81	92	00
18	LCSD L53AP1AD	100	89	85	84	89	100	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-110)
SRG02	= Terphenyl-d14	(21-130)
SRG03	= 2-Fluorobiphenyl	(28-108)
SRG04	= 2-Fluorophenol	(28-107)
SRG05	= Phenol-d5	(30-112)
SRG06	= 2,4,6-Tribromophenol	(21-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H240000 WO #: L53AP1AC
BATCH: 0236295

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	231	69	39 - 105	
2-Chlorophenol	333	232	70	40 - 105	
1,4-Dichlorobenzene	333	240	72	41 - 101	
N-Nitrosodi-n-propylamine	333	251	75	42 - 108	
1,2,4-Trichlorobenzene	333	249	75	41 - 105	
4-Chloro-3-methylphenol	333	245	73	43 - 110	
Acenaphthene	333	273	82	42 - 104	
4-Nitrophenol	333	277	83	27 - 131	
2,4-Dinitrotoluene	333	267	80	48 - 118	
Pentachlorophenol	333	213	64	18 - 125	
Pyrene	333	258	77	39 - 113	
4-Methylphenol	667	448	67	43 - 107	
Hexachloroethane	333	246	74	40 - 102	
Naphthalene	333	254	76	42 - 104	
4-Bromophenyl phenyl ethe	333	251	75	43 - 111	
Butyl benzyl phthalate	333	292	87	40 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H240000 WO #: L53AP1AD
BATCH: 0236295

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	250	75	39 - 105	
2-Chlorophenol	333	251	75	40 - 105	
1,4-Dichlorobenzene	333	245	73	41 - 101	
N-Nitrosodi-n-propylamine	333	281	84	42 - 108	
1,2,4-Trichlorobenzene	333	255	76	41 - 105	
4-Chloro-3-methylphenol	333	281	84	43 - 110	
Acenaphthene	333	283	85	42 - 104	
4-Nitrophenol	333	316	95	27 - 131	
2,4-Dinitrotoluene	333	298	90	48 - 118	
Pentachlorophenol	333	217	65	18 - 125	
Pyrene	333	260	78	39 - 113	
4-Methylphenol	667	477	71	43 - 107	
Hexachloroethane	333	259	78	40 - 102	
Naphthalene	333	262	79	42 - 104	
4-Bromophenyl phenyl ethe	333	267	80	43 - 111	
Butyl benzyl phthalate	333	308	92	40 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H210447

Lab File ID (Standard): V08270CC Date Analyzed: 08/27/10

Instrument ID: 731 Time Analyzed: 1020

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	160565		4.47		546512		5.44		311383		6.79	
	UPPER LIMIT	321130		4.97		1093024		5.94		622766		7.29	
	LOWER LIMIT	80283		3.97		273256		4.94		155692		6.29	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	153626		4.47		541336		5.44		330553		6.79	
02	INTRA-LAB CH	138739		4.47		424366		5.44		233961		6.79	
03	INTRA-LAB CH	103063		4.47		328829		5.44		204402		6.79	
04	SD-85-SS	113279		4.47		347209		5.44		185312		6.79	
05	SD-85-02	93889		4.47		281879		5.44		159089		6.78	
06	SD-85-04	88290		4.47		280454		5.44		159656		6.78	
07	SD-83-SS	112738		4.47		349703		5.43		180984		6.78	
08	SD-83-01	114057		4.48		343335		5.44		185211		6.78	
09	SD-83-02	98146		4.47		296073		5.44		163536		6.78	
10	SD-83-04	101591		4.47		301092		5.43		170898		6.78	
11	SD-84-01	106742		4.47		318340		5.44		163529		6.78	
12	SD-84-02	108643		4.47		335260		5.44		167388		6.78	
13	MIDDLE RIVER	89135		4.47		276330		5.44		156936		6.78	
14	MIDDLE RIVER	128750		4.46		377294		5.43		195708		6.77	
15	MIDDLE RIVER	109720		4.47		351698		5.43		186542		6.77	
16	MIDDLE RIVER	117423		4.47		337784		5.43		174921		6.77	
17													
18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H210447

Lab File ID (Standard): V08270CC Date Analyzed: 08/27/10

Instrument ID: 731 Time Analyzed: 1020

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	480886	7.93	481735	9.97	435798	11.30
	UPPER LIMIT	961772	8.43	963470	10.47	871596	11.80
	LOWER LIMIT	240443	7.43	240868	9.47	217899	10.80
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	550580	7.92	468419	9.97	376163	11.30
02	INTRA-LAB CH	390654	7.92	434308	9.96	377635	11.29
03	INTRA-LAB CH	350732	7.93	441044	9.97	388102	11.30
04	SD-85-SS	276269	7.93	329437	9.97	346275	11.31
05	SD-85-02	250211	7.92	317086	9.97	322035	11.30
06	SD-85-04	251862	7.92	307679	9.97	347857	11.30
07	SD-83-SS	269200	7.92	311772	9.97	328058	11.30
08	SD-83-01	269071	7.92	394358	9.97	433934	11.31
09	SD-83-02	269877	7.92	364809	9.97	385568	11.31
10	SD-83-04	277533	7.91	342745	9.96	396023	11.29
11	SD-84-01	243827	7.91	374163	9.96	412327	11.29
12	SD-84-02	266902	7.92	401883	9.96	412741	11.29
13	MIDDLE RIVER	268235	7.91	365641	9.96	389156	11.28
14	MIDDLE RIVER	289872	7.91	349600	9.94	371019	11.26
15	MIDDLE RIVER	280741	7.91	349176	9.95	378321	11.27
16	MIDDLE RIVER	265733	7.91	325526	9.95	348776	11.27
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H210447

Lab File ID (Standard): V08310CC Date Analyzed: 08/31/10

Instrument ID: 731 Time Analyzed: 1111

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	99434	4.50	380407	5.48	248718	6.82
	UPPER LIMIT	198868	5.00	760814	5.98	497436	7.32
	LOWER LIMIT	49717	4.00	190204	4.98	124359	6.32
	CLIENT SAMPLE NO.						
01	SD-85-01	88957	4.50	329200	5.47	235052	6.82
02	SD-84-SS	82748	4.50	335018	5.47	222819	6.82
03							
04							
05							
06							
07							
08							
09							
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13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H210447

Lab File ID (Standard): V08310CC Date Analyzed: 08/31/10

Instrument ID: 731 Time Analyzed: 1111

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	490986		7.96		698834		10.03		812597		11.40	
	UPPER LIMIT	981972		8.46		1397668		10.53		1625194		11.90	
	LOWER LIMIT	245493		7.46		349417		9.53		406299		10.90	
	CLIENT SAMPLE NO.												
01	SD-85-01	478301		7.97		723863		10.07		925934		11.46	
02	SD-84-SS	443261		7.96		686647		10.07		964517		11.46	
03													
04													
05													
06													
07													
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17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	09/02/10	1423		
02		M1232	09/02/10	1444		
03		M1242	09/02/10	1504		
04		M1248	09/02/10	1525		
05		M1262	09/02/10	1545		
06		M1268	09/02/10	1605		
07		XL1660	09/02/10	1626		
08		L1660	09/02/10	1646		
09		ML1660	09/02/10	1707		
10		M1660	09/02/10	1727		
11		MH1660	09/02/10	1747		
12		H1660	09/02/10	1808		
13		XH1660	09/02/10	1828		
14		2M2154	09/02/10	1849		
15		2M1232	09/02/10	1909		
16		2M1242	09/02/10	1929		
17		2M1248	09/02/10	1950		
18		2M1262	09/02/10	2010		
19		2M1268	09/02/10	2030		
20		2M1660	09/02/10	2051		
21						
22						
23						
24						
25						
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27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

6E
HP6890 GC-14
MR-1

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900067.D
Level 2: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900068.D
Level 3: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900069.D
Level 4: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900070.D
Level 5: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900071.D
Level 6: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900072.D
Level 7: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900066.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	158318	+++++	+++++	+++++	158318	0.000	
(2)	+++++ / +++++	+++++	113230	+++++	+++++	+++++	113230	0.000	
(3)	+++++ / +++++	+++++	397978	+++++	+++++	+++++	397978	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	115154	+++++	+++++	+++++	115154	0.000	
(2)	+++++ / +++++	+++++	165876	+++++	+++++	+++++	165876	0.000	<-
(3)	+++++ / +++++	+++++	184724	+++++	+++++	+++++	184724	0.000	<-
(4)	+++++ / +++++	+++++	109890	+++++	+++++	+++++	109890	0.000	<-
(5)	+++++ / +++++	+++++	142110	+++++	+++++	+++++	142110	0.000	<-

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
4 Aroclor-1016(1)	460380	456225	436984	423273	440168	510758		
	549400						468170	9.706
(2)	531180	542855	523448	526302	562914	661682		
	601500						564269	9.019
(3)	288460	317205	312092	311855	351392	413870		
	270300						323596	14.554
(4)	395560	388630	372592	351875	383165	431261		
	427200						392898	7.246
(5)	436580	427840	405108	384361	430419	484211		
	484100						436088	8.558
5 Aroclor-1242(1)	+++++	+++++	257966	+++++	+++++	+++++		
	+++++						257966	0.000
(2)	+++++	+++++	411314	+++++	+++++	+++++		
	+++++						411314	0.000
(3)	+++++	+++++	231546	+++++	+++++	+++++		
	+++++						231546	0.000
(4)	+++++	+++++	195370	+++++	+++++	+++++		
	+++++						195370	0.000
(5)	+++++	+++++	251484	+++++	+++++	+++++		
	+++++						251484	0.000
6 Aroclor-1248(1)	+++++	+++++	555682	+++++	+++++	+++++		
	+++++						555682	0.000

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	591274	+++++	+++++	+++++	591274	0.000	<-
(3)	+++++ / +++++	+++++	523708	+++++	+++++	+++++	523708	0.000	<-
(4)	+++++ / +++++	+++++	211982	+++++	+++++	+++++	211982	0.000	<-
(5)	+++++ / +++++	+++++	126484	+++++	+++++	+++++	126484	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	198072	+++++	+++++	+++++	198072	0.000	
(2)	+++++ / +++++	+++++	461322	+++++	+++++	+++++	461322	0.000	<-
(3)	+++++ / +++++	+++++	682708	+++++	+++++	+++++	682708	0.000	<-
(4)	+++++ / +++++	+++++	405952	+++++	+++++	+++++	405952	0.000	<-
(5)	+++++ / +++++	+++++	312610	+++++	+++++	+++++	312610	0.000	<-
8 Aroclor-1260(1)	584280 / 753000	575520	541594	509380	557882	626132	592541	13.421	
(2)	781300 / 896800	778825	769718	773756	806981	916815	817742	7.615	

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	___ RRF	% RSD	
(3)	457020	477495	466244	442566	477242	546535			
	494300						480200	6.992	
(4)	1165720	1199850	1239132	1140195	1253732	1436877			
	1190400						1232272	7.984	
(5)	582800	567015	576770	575262	625119	673214			
	677400						611083	7.808	
9 Aroclor-1262 (1)	+++++	+++++	506162	+++++	+++++	+++++			
	+++++						506162	0.000	
(2)	+++++	+++++	231460	+++++	+++++	+++++			
	+++++						231460	0.000	<-
(3)	+++++	+++++	228222	+++++	+++++	+++++			
	+++++						228222	0.000	<-
(4)	+++++	+++++	1321770	+++++	+++++	+++++			
	+++++						1321770	0.000	<-
(5)	+++++	+++++	712214	+++++	+++++	+++++			
	+++++						712214	0.000	<-
10 Aroclor-1268 (1)	+++++	+++++	1625080	+++++	+++++	+++++			
	+++++						1625080	0.000	<-
(2)	+++++	+++++	1310294	+++++	+++++	+++++			
	+++++						1310294	0.000	<-
(3)	+++++	+++++	1153652	+++++	+++++	+++++			
	+++++						1153652	0.000	<-

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(4)	+++++	+++++	2981280	+++++	+++++	+++++			
	+++++						2981280	0.000	<-
$ 2 Tetrachloro-m-xylene	15285200	15474500	18029680	17686400	18674570	20767755			
	16864000						17540301	10.861	
$ 11 Decachlorobiphenyl	7002000	6553300	7230320	6711440	7044030	7631285			
	9146000						7331196	11.909	

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900079.D
Report Date: 03-Sep-2010 12:02

7E
HP6890 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0900079.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m

Injection Date: 02-SEP-2010 20:51
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:23 18:28
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	468170	428474	400.000	8.47889	15.00000	Averaged	
(2)	564269	520160	400.000	7.81695	15.00000	Averaged	
(3)	323596	305230	400.000	5.67569	15.00000	Averaged	
(4)	392898	386574	400.000	1.60945	15.00000	Averaged	
(5)	436088	414402	400.000	4.97294	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	17540301	808600	400.000	95.39004	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	7331196	175680	400.000	97.60367	15.00000	Averaged	<- NA
8 Aroclor-1260 (1)	592541	568896	400.000	3.99045	15.00000	Averaged	
(2)	817742	844090	400.000	-3.22204	15.00000	Averaged	
(3)	480200	420688	400.000	12.39322	15.00000	Averaged	
(4)	1232272	1085962	400.000	11.87321	15.00000	Averaged	
(5)	611083	546038	400.000	10.64420	15.00000	Averaged	

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.03 DCB: 13.03

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-85-SS	L50XR1AE	09/02/10	2111	6.03	13.05
02	SD-83-SS	L50X01AE	09/02/10	2132	6.03	13.04
03	SD-83-01	L50X11AE	09/02/10	2152	6.03	13.04
04	SD-84-SS	L50X41AE	09/02/10	2212	6.03	13.04
05	MIDDLE RIVER	L50X71AE	09/02/10	2233	6.03	13.05
06	MIDDLE RIVER	L500A1AE	09/02/10	2253	6.03	13.05
07	PBLK6288	L53AG1AA	09/02/10	2313	6.03	13.04
08	LCS6288	L53AG1AC	09/02/10	2334	6.02	13.04
09	LCSD6288	L53AG1AD	09/02/10	2354	6.03	13.05
10		MH1660	09/03/10	0358	6.03	13.04
11						
12						
13						
14						
15						
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21						
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23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900100.D
Report Date: 03-Sep-2010 13:15

7E
HP6890 Gas-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0900100.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m

Injection Date: 03-SEP-2010 03:58
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:23 18:28
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	468170	448672	400.000	4.16465	15.00000	Averaged
(2)	564269	556455	400.000	1.38473	15.00000	Averaged
(3)	323596	326716	400.000	-0.96406	15.00000	Averaged
(4)	392898	390886	400.000	0.51197	15.00000	Averaged
(5)	436088	421257	400.000	3.40101	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	17540301	18163420	400.000	-3.55250	15.00000	Averaged
$ 11 Decachlorobiphenyl	7331196	6827020	400.000	6.87714	15.00000	Averaged
8 Aroclor-1260(1)	592541	539492	400.000	8.95281	15.00000	Averaged
(2)	817742	813674	400.000	0.49747	15.00000	Averaged
(3)	480200	470976	400.000	1.92092	15.00000	Averaged
(4)	1232272	1210211	400.000	1.79029	15.00000	Averaged
(5)	611083	577826	400.000	5.44228	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	08/28/10	0703		
02		M1232	08/28/10	0723		
03		M1242	08/28/10	0744		
04		M1248	08/28/10	0804		
05		M1262	08/28/10	0824		
06		M1268	08/28/10	0845		
07		XL1660	08/28/10	0905		
08		L1660	08/28/10	0925		
09		ML1660	08/28/10	0946		
10		M1660	08/28/10	1006		
11		MH1660	08/28/10	1026		
12		H1660	08/28/10	1047		
13		XH1660	08/28/10	1107		
14		2M2154	08/28/10	1127		
15		2M1232	08/28/10	1148		
16		2M1242	08/28/10	1208		
17		2M1248	08/28/10	1229		
18		2M1262	08/28/10	1249		
19		2M1268	08/28/10	1309		
20		2M1660	08/28/10	1330		
21						
22						
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31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 30-Aug-2010 09:53

6E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801115.D
Level 2: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801116.D
Level 3: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801117.D
Level 4: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801118.D
Level 5: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801119.D
Level 6: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801120.D
Level 7: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801114.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	326144	+++++	+++++	+++++	326144	0.000	
(2)	+++++ / +++++	+++++	218828	+++++	+++++	+++++	218828	0.000	<-
(3)	+++++ / +++++	+++++	756818	+++++	+++++	+++++	756818	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	352070	+++++	+++++	+++++	352070	0.000	<-
(2)	+++++ / +++++	+++++	332418	+++++	+++++	+++++	332418	0.000	<-
(3)	+++++ / +++++	+++++	262228	+++++	+++++	+++++	262228	0.000	<-
(4)	+++++ / +++++	+++++	358466	+++++	+++++	+++++	358466	0.000	<-
(5)	+++++ / +++++	+++++	217810	+++++	+++++	+++++	217810	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
4 Aroclor-1016(1)	955340	920630	846730	1132647	817982	824718			
	1177000						953578	15.405	
(2)	1026720	994255	923908	1325964	912401	932243			
	1449800						1080756	20.050	<-
(3)	877600	931950	861736	1298761	885597	922049			
	984000						965956	15.774	<-
(4)	991740	969640	881988	1299352	881184	889723			
	1381900						1042218	20.133	<-
(5)	676960	689275	636640	962518	643196	681991			
	987300						753983	20.206	<-
5 Aroclor-1242(1)	+++++	+++++	434154	+++++	+++++	+++++			
	+++++						434154	0.000	
(2)	+++++	+++++	697586	+++++	+++++	+++++			
	+++++						697586	0.000	
(3)	+++++	+++++	734798	+++++	+++++	+++++			
	+++++						734798	0.000	
(4)	+++++	+++++	453118	+++++	+++++	+++++			
	+++++						453118	0.000	
(5)	+++++	+++++	345952	+++++	+++++	+++++			
	+++++						345952	0.000	
6 Aroclor-1248(1)	+++++	+++++	1080376	+++++	+++++	+++++			
	+++++						1080376	0.000	

18-3 AA 9/20/10

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	___ RRF	% RSD	
(2)	+++++	+++++	409094	+++++	+++++	+++++	+++++	409094	0.000	<-
(3)	+++++	+++++	489530	+++++	+++++	+++++	+++++	489530	0.000	<-
(4)	+++++	+++++	445960	+++++	+++++	+++++	+++++	445960	0.000	<-
(5)	+++++	+++++	621586	+++++	+++++	+++++	+++++	621586	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	1151304	+++++	+++++	+++++	+++++	1151304	0.000	
(2)	+++++	+++++	1920192	+++++	+++++	+++++	+++++	1920192	0.000	
(3)	+++++	+++++	1102060	+++++	+++++	+++++	+++++	1102060	0.000	
(4)	+++++	+++++	1469122	+++++	+++++	+++++	+++++	1469122	0.000	
(5)	+++++	+++++	980884	+++++	+++++	+++++	+++++	980884	0.000	
8 Aroclor-1260(1)	2035180	1907575	1778584	2389297	1749153	1717677	2411500	1998424	14.764	
(2)	2635400	2479830	2306268	3240700	2186068	2281147	2813800	2563316	14.438	

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(3)	2259420	2152565	1990964	2728213	1966505	1882163	2513200	2213290	14.058	
(4)	2305820	2185915	2003860	2691922	1810105	1836292	2631800	2209388	16.130	
(5)	1156300	1030465	957288	1290940	898524	908319	1321600	1080491	16.409	
9 Aroclor-1262(1)	+++++	+++++	2731000	+++++	+++++	+++++	+++++	2731000	0.000	
(2)	+++++	+++++	2330680	+++++	+++++	+++++	+++++	2330680	0.000	<-
(3)	+++++	+++++	4701386	+++++	+++++	+++++	+++++	4701386	0.000	<-
(4)	+++++	+++++	2044544	+++++	+++++	+++++	+++++	2044544	0.000	<-
(5)	+++++	+++++	3111894	+++++	+++++	+++++	+++++	3111894	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	5518726	+++++	+++++	+++++	+++++	5518726	0.000	
(2)	+++++	+++++	4968164	+++++	+++++	+++++	+++++	4968164	0.000	<-
(3)	+++++	+++++	4078350	+++++	+++++	+++++	+++++	4078350	0.000	<-

Report Date : 30-Aug-2010 09:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-2010 07:03
End Cal Date : 28-AUG-2010 11:07
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m
Last Edit : 30-Aug-2010 09:46 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(4)	+++++	+++++	1254572	+++++	+++++	+++++			
	+++++						1254572	0.000	<-
$ 2 Tetrachloro-m-xylene	27560000	26782300	28970520	40554860	28620900	28968345			
	31896000						30478989	15.489	
$ 11 Decachlorobiphenyl	17917600	16047300	17608960	21801560	16425500	15681665			
	19986000						17924084	12.513	

Data File: \\PITSVR06\D\chem\gc14.i\08280.B\Z0801127.D
Report Date: 30-Aug-2010 09:46

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801127.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.B\yPCBB.m

Injection Date: 28-AUG-2010 13:30
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	953578	868382	0.010	8.93436	15.00000	Averaged	
(2)	1080756	907798	0.010	16.00341	15.00000	Averaged	<- O.K
(3)	965956	872314	0.010	9.69424	15.00000	Averaged	
(4)	1042218	907860	0.010	12.89155	15.00000	Averaged	
(5)	753983	609612	0.010	19.14776	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	30478989	++++	0.000	++++	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	17924084	389600	0.010	97.82639	15.00000	Averaged	<- NA
8 Aroclor-1260 (1)	1998424	1868548	0.010	6.49890	15.00000	Averaged	
(2)	2563316	2476344	0.010	3.39295	15.00000	Averaged	
(3)	2213290	2141506	0.010	3.24331	15.00000	Averaged	
(4)	2209388	1831410	0.010	17.10780	15.00000	Averaged	<- O.K
(5)	1080491	922886	0.010	14.58642	15.00000	Averaged	

8/30/11
8/30/11

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT	#
01		M2154	08/31/10	1649				
02		M1232	08/31/10	1709				
03		M1242	08/31/10	1729				
04		M1248	08/31/10	1750				
05		M1262	08/31/10	1810				
06		M1268	08/31/10	1831				
07		M1660	08/31/10	1851				
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
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27								
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29								
30								
31								
32								

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\08290.b\Z0801306.D
Report Date: 01-Sep-2010 11:40

7E
HP6890 GC-14
m R-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0801306.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08290.b\yPCBB.m

Injection Date: 31-AUG-2010 18:51
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	835366	0.010	12.39669	15.00000	Averaged
(2)	1080756	942566	0.010	12.78640	15.00000	Averaged
(3)	965956	869868	0.010	9.94746	15.00000	Averaged
(4)	1042218	915892	0.010	12.12089	15.00000	Averaged
(5)	753983	644266	0.010	14.55163	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	27891560	0.000	8.48922	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	16537400	0.010	7.73643	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1782418	0.010	10.80880	15.00000	Averaged
(2)	2563316	2324818	0.010	9.30428	15.00000	Averaged
(3)	2213290	1968078	0.010	11.07907	15.00000	Averaged
(4)	2209388	2004792	0.010	9.26029	15.00000	Averaged
(5)	1080491	954616	0.010	11.64979	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 08/28/10 08/28/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 13.23 TCX: 6.05

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01		M1660	09/01/10	1422	13.23	6.04
02	SD-85-01	L50XT1AK	09/01/10	1502	13.23	6.05
03	SD-85-02	L50XW1AK	09/01/10	1523	13.23	6.05
04	SD-85-04	L50XX1AK	09/01/10	1543	13.23	6.05
05	SD-83-02	L50X21AE	09/01/10	1644	13.23	6.05
06	SD-83-04	L50X31AE	09/01/10	1705	13.23	6.05
07	SD-84-01	L50X51AE	09/01/10	1746	13.23	6.05
08	SD-84-02	L50X61AE	09/01/10	1806	13.23	6.05
09	MIDDLE RIVER	L500D1AE	09/01/10	1907	13.23	6.05
10	MIDDLE RIVER	L500E1AE	09/01/10	1928	13.23	6.05
11		MH1660	09/01/10	2109	13.23	6.05
12						
13						
14						
15						
16						
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18						
19						
20						
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24						
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27						
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30						
31						
32						

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Z0900003.D
Report Date: 02-Sep-2010 07:38

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900003.D
Analysis Type:
Lab Sample ID: M1660
Method: \\PITSVR06\D\chem\gc14.i\08280.b\yPCBB.m

Injection Date: 01-SEP-2010 14:22
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	953578	883142	0.010	7.38650	15.00000	Averaged
(2)	1080756	982666	0.010	9.07603	15.00000	Averaged
(3)	965956	918860	0.010	4.87559	15.00000	Averaged
(4)	1042218	939612	0.010	9.84497	15.00000	Averaged
(5)	753983	669012	0.010	11.26959	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	28932800	0.000	5.07297	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	17845200	0.010	0.44010	15.00000	Averaged
8 Aroclor-1260 (1)	1998424	1847656	0.010	7.54433	15.00000	Averaged
(2)	2563316	2358318	0.010	7.99738	15.00000	Averaged
(3)	2213290	2100374	0.010	5.10172	15.00000	Averaged
(4)	2209388	2037096	0.010	7.79817	15.00000	Averaged
(5)	1080491	988540	0.010	8.51010	15.00000	Averaged

Data File: \\PITSVR06\D\chem\gc14.i\08280.b\Z0900023.D
Report Date: 02-Sep-2010 07:38

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900023.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\08280.b\yPCBB.m

Injection Date: 01-SEP-2010 21:09
Init. Cal. Date(s): 28-AUG-2010 28-AUG-2010
Init. Cal. Times: 07:03 11:07
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	953578	863557	0.010	9.44035	15.00000	Averaged
(2)	1080756	1036072	0.010	4.13449	15.00000	Averaged
(3)	965956	998579	0.010	-3.37726	15.00000	Averaged
(4)	1042218	965924	0.010	7.32036	15.00000	Averaged
(5)	753983	723447	0.010	4.04993	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	30478989	30669020	0.000	-0.62348	15.00000	Averaged
$ 11 Decachlorobiphenyl	17924084	16070580	0.010	10.34086	15.00000	Averaged
8 Aroclor-1260(1)	1998424	1901601	0.010	4.84495	15.00000	Averaged
(2)	2563316	2415081	0.010	5.78294	15.00000	Averaged
(3)	2213290	2098611	0.010	5.18138	15.00000	Averaged
(4)	2209388	1973793	0.010	10.66335	15.00000	Averaged
(5)	1080491	953216	0.010	11.77936	15.00000	Averaged

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	09/02/10	1444		
02		M1232	09/02/10	1504		
03		M1242	09/02/10	1525		
04		M1248	09/02/10	1545		
05		M1262	09/02/10	1605		
06		M1268	09/02/10	1626		
07		XL1660	09/02/10	1646		
08		L1660	09/02/10	1707		
09		ML1660	09/02/10	1727		
10		M1660	09/02/10	1747		
11		MH1660	09/02/10	1808		
12		H1660	09/02/10	1828		
13		2M2154	09/02/10	1909		
14		2M1232	09/02/10	1929		
15		2M1242	09/02/10	1950		
16		2M1248	09/02/10	2010		
17		2M1262	09/02/10	2030		
18		2M1268	09/02/10	2051		
19		2M1660	09/02/10	2111		
20						
21						
22						
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31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

6E
HP6890 GC-14
MR-2

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900067.D
Level 2: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900068.D
Level 3: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900069.D
Level 4: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900070.D
Level 5: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900071.D
Level 6: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900072.D
Level 7: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900066.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	333554	+++++	+++++	+++++	333554	0.000	
(2)	+++++ / +++++	+++++	213892	+++++	+++++	+++++	213892	0.000	<-
(3)	+++++ / +++++	+++++	747008	+++++	+++++	+++++	747008	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	360014	+++++	+++++	+++++	360014	0.000	<-
(2)	+++++ / +++++	+++++	356318	+++++	+++++	+++++	356318	0.000	<-
(3)	+++++ / +++++	+++++	276108	+++++	+++++	+++++	276108	0.000	<-
(4)	+++++ / +++++	+++++	370766	+++++	+++++	+++++	370766	0.000	<-
(5)	+++++ / +++++	+++++	238432	+++++	+++++	+++++	238432	0.000	<-

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
4 Aroclor-1016(1)	923640 / 1057200	903530	846942	771091	779265	+++++	880278	12.125
(2)	1014220 / 1340600	1001495	918888	922578	901680	+++++	1016577	16.271
(3)	858560 / 926800	891405	872630	883862	870915	+++++	884029	2.693
(4)	992620 / 1278700	935650	889400	881750	865801	+++++	973987	16.040
(5)	721620 / 1010800	705110	643744	644573	626205	+++++	725342	19.971
5 Aroclor-1242(1)	+++++ / +++++	+++++	420486	+++++	+++++	+++++	420486	0.000
(2)	+++++ / +++++	+++++	679866	+++++	+++++	+++++	679866	0.000
(3)	+++++ / +++++	+++++	713230	+++++	+++++	+++++	713230	0.000
(4)	+++++ / +++++	+++++	445850	+++++	+++++	+++++	445850	0.000
(5)	+++++ / +++++	+++++	339342	+++++	+++++	+++++	339342	0.000
6 Aroclor-1248(1)	+++++ / +++++	+++++	1041508	+++++	+++++	+++++	1041508	0.000

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(2)	+++++	+++++	406940	+++++	+++++	+++++	+++++	406940	0.000	<-
(3)	+++++	+++++	491322	+++++	+++++	+++++	+++++	491322	0.000	<-
(4)	+++++	+++++	436776	+++++	+++++	+++++	+++++	436776	0.000	<-
(5)	+++++	+++++	619976	+++++	+++++	+++++	+++++	619976	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	1144822	+++++	+++++	+++++	+++++	1144822	0.000	
(2)	+++++	+++++	1902580	+++++	+++++	+++++	+++++	1902580	0.000	
(3)	+++++	+++++	1069714	+++++	+++++	+++++	+++++	1069714	0.000	
(4)	+++++	+++++	1454892	+++++	+++++	+++++	+++++	1454892	0.000	
(5)	+++++	+++++	1011000	+++++	+++++	+++++	+++++	1011000	0.000	
8 Aroclor-1260(1)	1986280	1934205	1774966	1677980	1652811	+++++	2213400	1873274	11.414	
(2)	2615500	2439275	2323566	2229388	2207857	+++++	2792900	2434748	9.491	

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
(3)	2254800	2139695	2002940	1848940	1874135	+++++		
	2375500						2082668	10.143
(4)	2246000	2094370	2023828	1814592	1842167	+++++		
	2531300						2092043	12.839
(5)	1100260	1044560	931270	904051	891643	+++++		
	1166900						1006447	11.356
9 Aroclor-1262(1)	+++++	+++++	2762654	+++++	+++++	+++++		
	+++++						2762654	0.000
(2)	+++++	+++++	2303116	+++++	+++++	+++++		
	+++++						2303116	0.000 <-
(3)	+++++	+++++	4765290	+++++	+++++	+++++		
	+++++						4765290	0.000 <-
(4)	+++++	+++++	1934972	+++++	+++++	+++++		
	+++++						1934972	0.000 <-
(5)	+++++	+++++	3053472	+++++	+++++	+++++		
	+++++						3053472	0.000 <-
10 Aroclor-1268(1)	+++++	+++++	5707960	+++++	+++++	+++++		
	+++++						5707960	0.000
(2)	+++++	+++++	4924600	+++++	+++++	+++++		
	+++++						4924600	0.000 <-
(3)	+++++	+++++	4014208	+++++	+++++	+++++		
	+++++						4014208	0.000 <-

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	____ RRF	% RSD	
(4)	+++++	+++++	1271086	+++++	+++++	+++++	+++++	1271086	0.000	<-
$ 2 Tetrachloro-m-xylene	25362400	26401900	28279400	27883340	27449500	+++++	29194000	27428423	4.991	
$ 11 Decachlorobiphenyl	16775600	14740100	16316480	15102760	15062600	+++++	18336000	16055590	8.545	

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900079.D
Report Date: 03-Sep-2010 10:57

7E

TestAmerica Pittsburgh HP6890 GC-14

CONTINUING CALIBRATION COMPOUNDS MR-2

Instrument ID: gc14.i
Lab File ID: Z0900079.D
Analysis Type: ~~AIR~~ NONE
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m

Injection Date: 02-SEP-2010 21:11
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:44 18:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016(1)	880278	835130	0.010	5.12883	15.00000	Averaged	
(2)	1016577	939096	0.010	7.62173	15.00000	Averaged	
(3)	884029	870368	0.010	1.54527	15.00000	Averaged	
(4)	973987	906108	0.010	6.96917	15.00000	Averaged	
(5)	725342	608146	0.010	16.15733	15.00000	Averaged	<- O.K.
$ 2 Tetrachloro-m-xylene	27428423	++++	0.000	++++	15.00000	Averaged	<- N.A.
$ 11 Decachlorobiphenyl	16055590	368280	0.010	97.70622	15.00000	Averaged	<- N.A.
8 Aroclor-1260(1)	1873274	1891140	0.010	-0.95375	15.00000	Averaged	
(2)	2434748	2445674	0.010	-0.44877	15.00000	Averaged	
(3)	2082668	2111940	0.010	-1.40549	15.00000	Averaged	
(4)	2092043	1839330	0.010	12.07971	15.00000	Averaged	
(5)	1006447	935944	0.010	7.00517	15.00000	Averaged	

Ae 9/3/10

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.05 DCB: 13.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	SD-85-SS	L50XR1AE	09/02/10	2132	6.05	13.23
02	SD-83-SS	L50X01AE	09/02/10	2152	6.04	13.23
03	SD-83-01	L50X11AE	09/02/10	2212	6.05	13.23
04	SD-84-SS	L50X41AE	09/02/10	2233	6.05	13.23
05	MIDDLE RIVER	L50X71AE	09/02/10	2253	6.05	13.23
06	MIDDLE RIVER	L500A1AE	09/02/10	2313	6.04	13.23
07	PBLK6288	L53AG1AA	09/02/10	2334	6.05	13.23
08	LCS6288	L53AG1AC	09/02/10	2354	6.05	13.23
09	LCSD6288	L53AG1AD	09/03/10	0014	6.05	13.23
10		MH1660	09/03/10	0419	6.04	13.23
11						
12						
13						
14						
15						
16						
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28						
29						
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31						
32						

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900100.D
Report Date: 03-Sep-2010 10:49

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900100.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m

Injection Date: 03-SEP-2010 04:19
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:44 18:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	880278	780250	0.010	11.36322	15.00000	Averaged
(2)	1016577	934158	0.010	8.10748	15.00000	Averaged
(3)	884029	909863	0.010	-2.92234	15.00000	Averaged
(4)	973987	901346	0.010	7.45809	15.00000	Averaged
(5)	725342	657779	0.010	9.31463	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	27428423	27524400	0.000	-0.34992	15.00000	Averaged
$ 11 Decachlorobiphenyl	16055590	15068660	0.010	6.14696	15.00000	Averaged
8 Aroclor-1260(1)	1873274	1716253	0.010	8.38215	15.00000	Averaged
(2)	2434748	2286053	0.010	6.10719	15.00000	Averaged
(3)	2082668	1936197	0.010	7.03287	15.00000	Averaged
(4)	2092043	1877704	0.010	10.24543	15.00000	Averaged
(5)	1006447	900617	0.010	10.51524	15.00000	Averaged

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L53AG1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0900086.

Lot Number: C0H210447

Matrix: SOLID

Extraction Method: 3541

Date Extracted: 08/24/10

Date Analyzed(1): 09/02/10

Date Analyzed(2): N/A

Time Analyzed(1): 23:13

Time Analyzed(2): N/A

Instrument ID(1): S/T

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	SD-85-SS	L50XR1AE	09/02/10	N/A
02	SD-85-01	L50XT1AK	09/01/10	N/A
03	SD-85-02	L50XW1AK	09/01/10	N/A
04	SD-85-04	L50XX1AK	09/01/10	N/A
05	SD-83-SS	L50X01AE	09/02/10	N/A
06	SD-83-01	L50X11AE	09/02/10	N/A
07	SD-83-02	L50X21AE	09/01/10	N/A
08	SD-83-04	L50X31AE	09/01/10	N/A
09	SD-84-SS	L50X41AE	09/02/10	N/A
10	SD-84-01	L50X51AE	09/01/10	N/A
11	SD-84-02	L50X61AE	09/01/10	N/A
12	MIDDLE RIVER DOWNSTREAM SS	L50X71AE	09/02/10	N/A
13	MIDDLE RIVER DOWNSTREAM 01	L500A1AE	09/02/10	N/A
14	MIDDLE RIVER DOWNSTREAM 02	L500D1AE	09/01/10	N/A
15	MIDDLE RIVER DOWNSTREAM 04	L500E1AE	09/01/10	N/A
16	CHECK SAMPLE	L53AG1AC C	09/02/10	N/A
17	DUPLICATE CHECK	L53AG1AD L	09/02/10	N/A
18				
19				
20				

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H210447 **Work Order #...:** L53AG1AA **Matrix.....:** SOLID
MB Lot-Sample #: C0H240000-288

Prep Date.....: 08/24/10 **Analysis Time..:** 23:13
Analysis Date..: 09/02/10 **Prep Batch #...:** 0236288 **Final Wgt/Vol..:** 10 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 15 g **Instrument ID..:** S/T
Analyst ID.....: 402360

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107	(35 - 140)
Decachlorobiphenyl	89	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H210447

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	SD-85-SS	110	93	00
02	SD-85-01	99	87	00
03	SD-85-02	97	83	00
04	SD-85-04	99	83	00
05	SD-83-SS	113	92	00
06	SD-83-01	107	91	00
07	SD-83-02	142*	115	01
08	SD-83-04	101	83	00
09	SD-84-SS	115	85	00
10	SD-84-01	106	84	00
11	SD-84-02	100	80	00
12	MIDDLE RIVER DOWNSTREAM SS	108	96	00
13	MIDDLE RIVER DOWNSTREAM 01	107	112	00
14	MIDDLE RIVER DOWNSTREAM 02	100	76	00
15	MIDDLE RIVER DOWNSTREAM 04	99	83	00
16	METHOD BLK. L53AG1AA	107	89	00
17	LCS L53AG1AC	114	91	00
18	LCSD L53AG1AD	112	91	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H240000 WO #: L53AG1AC
BATCH: 0236288

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	615	92	55 - 130	
Aroclor 1260	667	605	91	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H240000 WO #: L53AG1AD

BATCH: 0236288

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	617	93	55 - 130	
Aroclor 1260	667	600	90	54 - 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

MIDDLE RI
VER DOWNST

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L500A1AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	14.434		
Aroclor-1260	2	9.99	9.96	10.02	15.032		
	3	10.75	10.72	10.78	16.765		
COLUMN 1	4	11.18	11.15	11.21	13.825		
	5	11.52	11.48	11.54	37.692	19.550	
	1	9.72	9.68	9.78	14.263		
	2	10.02	9.97	10.07	15.747		
	3	10.55	10.50	10.60	16.733		
COLUMN 2	4	11.03	10.98	11.08	27.239		
	5					18.495	5.7
						RPD= 5.5	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-83-01

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L50X11AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	7.3679		
Aroclor-1260	2	9.99	9.96	10.02	15.921		
	3	10.75	10.72	10.78	8.0079		
COLUMN 1	4	11.17	11.15	11.21	7.2902		
	5	11.50	11.48	11.54	13.464	10.410	
	1	10.04	9.97	10.07	12.863		
	2	10.23	10.19	10.29	5.7972		
	3	10.54	10.50	10.60	6.7901		
COLUMN 2	4						
	5					8.4834	22.7
						RPD= 20.4	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-83-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L50X01AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	17.296		
Aroclor-1260	2	9.99	9.96	10.02	32.463		
	3	10.75	10.72	10.78	16.042		
COLUMN 1	4	11.18	11.15	11.21	16.492		
	5	11.51	11.48	11.54	18.877	20.234	
	1	9.72	9.68	9.78	21.228		
	2	10.02	9.97	10.07	55.828		
	3	10.23	10.19	10.29	15.192		
COLUMN 2	4	10.54	10.50	10.60	13.621		
	5	11.02	10.98	11.08	20.657	25.305	25.1
						RPD= 22.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-84-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L50X41AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	45.798		
Aroclor-1260	2	9.99	9.96	10.02	68.806		
	3	10.75	10.72	10.78	60.596		
COLUMN 1	4	11.18	11.15	11.21	79.467		
	5					63.666	
	1	9.73	9.68	9.78	42.015		
	2	10.02	9.97	10.07	59.981		
	3	10.23	10.19	10.29	46.230		
COLUMN 2	4	10.54	10.50	10.60	56.123		
	5	11.02	10.98	11.08	53.077	51.485	23.6
						RPD= 21.2	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-85-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L50XR1AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	24.294		
Aroclor-1260	2	9.99	9.96	10.02	33.485		
	3	10.75	10.72	10.78	19.954		
COLUMN 1	4	11.18	11.15	11.21	20.806		
	5	11.51	11.48	11.54	24.121	24.532	
	1	9.72	9.68	9.78	26.829		
	2	10.02	9.97	10.07	43.759		
	3	10.23	10.19	10.29	18.095		
COLUMN 2	4	10.54	10.50	10.60	19.305		
	5	11.02	10.98	11.08	22.162	26.030	6.1
						RPD= 5.9	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT		JOB NUMBER	
Middle River Center		SDG COH210447	
SUBJECT			
Sample Calculations			
BASED ON		DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE
Ann Cognetti			10-1-10

Sample SD-85-55; Cpyrene

$$\frac{131561}{329437} * 25 * \frac{500}{2*30.2} * \frac{8}{1.14166} = \frac{579.14\ ug/kg}{0.75} = 772\ ug/kg \text{ pyrene}$$

Sample SD-83-55; Aroclor 1260

$$\frac{59649}{1873274} * \frac{10000}{15} = 21.23$$

$$\frac{203889}{2434748} * \frac{10000}{15} = 55.83$$

$$\frac{47460}{2082668} * \frac{10000}{15} = 15.19$$

$$\frac{42743}{2092043} * \frac{10000}{15} = 13.62$$

$$\frac{31186}{1006447} * \frac{10000}{15} = 20.66$$

$$\frac{21.23 + 55.83 + 15.19 + 13.62 + 20.66}{5} = \frac{25.31\ ug/kg}{0.73} = 34.67\ ug/kg \text{ Aroclor 1260}$$

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H210447-001	Work Order #...:	L50XR1AD	Matrix.....:	SOLID
Date Sampled...:	08/19/10 16:32	Date Received..:	08/21/10 10:30	MS Run #.....:	
Prep Date.....:	08/24/10	Analysis Date..:	08/27/10		
Prep Batch #...:	0236295	Analysis Time..:	14:00		
Dilution Factor:	12.42	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	25	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	29 J	110	ug/kg	9.5
Acenaphthylene	140	110	ug/kg	13
Acenaphthene	22 J	110	ug/kg	11
Fluorene	43 J	110	ug/kg	15
Phenanthrene	290	110	ug/kg	18
Anthracene	170	110	ug/kg	11
Fluoranthene	570	110	ug/kg	12
Pyrene	770	110	ug/kg	11
Benzo(a)anthracene	390	110	ug/kg	14
Chrysene	520	110	ug/kg	13
Benzo(b)fluoranthene	540	110	ug/kg	17
Benzo(k)fluoranthene	190	110	ug/kg	22
Benzo(a)pyrene	450	110	ug/kg	11
Indeno(1,2,3-cd)pyrene	500	110	ug/kg	11
Dibenzo(a,h)anthracene	280	110	ug/kg	12
Benzo(ghi)perylene	550	110	ug/kg	11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	NC,DIL	(27 - 110)
Terphenyl-d14	NC,DIL	(21 - 130)
2-Fluorobiphenyl	NC,DIL	(28 - 108)
2-Fluorophenol	NC,DIL	(28 - 107)
Phenol-d5	NC,DIL	(30 - 112)
2,4,6-Tribromophenol	NC,DIL	(21 - 116)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Sample Calculation

TestAmerica Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\D\chem\731.i\V082710.b\V0827010.D
Lab Smp Id: L50XR1AD Client Smp ID: SD-85-SS
Inj Date : 27-AUG-2010 14:00
Operator : 003200 Inst ID: 731.i
Smp Info : C0H210447-001 X25 8/24/10soil(0236295)8270c
Misc Info : L50XR1AD,V082710.b,827011.m,pah.sub
Comment :
Method : \\PITSVR06\D\chem\731.i\V082710.b\827011.m
Meth Date : 28-Aug-2010 07:54 piccolinov Quant Type: ISTD
Cal Date : 04-JUN-2010 08:08 Cal File: V0604IC3.D
Als bottle: 12
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: pah.sub
Target Version: 4.14
Processing Host: PITPC-502

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws)*gpc * CpndVariable

Name	Value	Description
DF	25.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.200	Weight of sample extracted (g)
gpc	1.000	gpc correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/kg)
* 1 1,4-Dichlorobenzene-d4	152	4.474	4.465	(1.000)	113279	8.00000	
* 2 Naphthalene-d8	136	5.440	5.443	(1.000)	347209	8.00000	
* 3 Acenaphthene-d10	164	6.787	6.789	(1.000)	185312	8.00000	
* 4 Phenanthrene-d10	188	7.925	7.927	(1.000)	276269	8.00000	
* 5 Chrysene-d12	240	9.971	9.967	(1.000)	329437	8.00000	
* 6 Perylene-d12	264	11.306	11.298	(1.000)	346275	8.00000	
51 Naphthalene	128	5.462	5.459	(1.004)	5172	0.10638	22.016
62 2-Methylnaphthalene	142	5.985	5.987	(1.100)	2189	0.06873	14.224
63 1-Methylnaphthalene	142	6.060	6.062	(1.114)	2008	0.06592	13.641
79 Acenaphthylene	152	6.680	6.677	(0.984)	18697	0.49185	101.79
82 Acenaphthene	153	6.813	6.810	(1.004)	2003	0.08043	16.645
94 Fluorene	166	7.209	7.205	(1.062)	5001	0.15368	31.804
115 Phenanthrene	178	7.946	7.948	(1.003)	41901	1.04754	216.79
116 Anthracene	178	7.983	7.985	(1.007)	24645	0.59941	124.05
123 Fluoranthene	202	8.859	8.862	(1.118)	97193	2.06872	428.13
125 Pyrene	202	9.036	9.038	(0.906)	131561	2.79839	579.14
136 Benzo(a)Anthracene	228	9.960	9.957	(0.999)	68424	1.42492	294.89
137 Chrysene	228	9.987	9.983	(1.002)	87711	1.87188	387.39
141 Benzo(b)fluoranthene	252	10.905	10.892	(0.965)	106601	1.93490	400.44

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 04-JUN-2010 07:27
End Cal Date : 04-JUN-2010 09:53
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\731.i\V060410.b\827011.m
Last Edit : 07-Jun-2010 09:06 731.i

Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
124 Benzidine	+++++	+++++	40351	143236	357935	788305						
	1280605	1775699					QUAD	0.37300	3.14176	-0.06554	0.99922	
125 Pyrene	1.02574	1.09780	1.12184	1.16541	1.17507	1.14596						
	1.18337	1.21808					AVRG		1.14166		5.23791	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: SD-83-SS

GC Semivolatiles

Lot-Sample #...:	C0H210447-005	**Work Order #...:**	L50X01AE	**Matrix.....:**	SOLID
Date Sampled...:	08/20/10	**Date Received..:**	08/21/10	**MS Run #.....:**	
Prep Date.....:	08/24/10	**Analysis Date..:**	09/02/10		
Prep Batch #...:	0236288	**Analysis Time..:**	21:32		
Dilution Factor:	0.5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	27	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	11	ug/kg	1.7
Aroclor 1221	ND	11	ug/kg	2.2
Aroclor 1232	ND	11	ug/kg	2.0
Aroclor 1242	ND	11	ug/kg	1.9
Aroclor 1248	ND	11	ug/kg	1.1
Aroclor 1254	ND	11	ug/kg	1.6
Aroclor 1260	**35**	**11**	**ug/kg**	**1.6**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900081.D
Report Date: 03-Sep-2010 11:01

Sample Calculation

TestAmerica Pittsburgh

Data file : \\PITSVR06\D\chem\gc14.i\09020.B\Z0900081.D
Lab Smp Id: L50X01AE
Client Smp ID: SD-83-SS
Inj Date : 02-SEP-2010 21:52
Operator : 402360
Inst ID: gc14.i
Smp Info : L50X01AE,09020.B
Misc Info : C0H210447-005
Comment : 8082 PCB ANALYSIS
Method : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Meth Date : 03-Sep-2010 10:57 gc14.i
Quant Type: ESTD
Cal Date : 02-SEP-2010 18:28
Cal File: Z0900071.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: PCB.sub
Target Version: 4.14
Sample Matrix: SOIL
Processing Host: PITPC-106

Concentration Formula: Amt * DF * (Vt/Vi)/Ws * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract
Vi	1.000	volume injected
Ws	15.000	initial volume of sample
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE	RATIO	
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8			
	6.044	6.048	-0.004	658974	0.02403	16.017			(R)
1 Aroclor-1221						CAS #: 11104-28-2			
Operator disabled compound identification.									
4 Aroclor-1016						CAS #: 12674-11-2			
Operator disabled compound identification.									
3 Aroclor-1232						CAS #: 11141-16-5			
Operator disabled compound identification.									

Sample Calculation

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900081.D
Report Date: 03-Sep-2010 11:01

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE	RATIO	
6 Aroclor-1248					CAS #: 12672-29-6			
Operator disabled compound identification.								
5 Aroclor-1242					CAS #: 53469-21-9			
Operator disabled compound identification.								
7 Aroclor-1254					CAS #: 11097-69-1			
Operator disabled compound identification.								
9 Aroclor-1262					CAS #: 37324-23-5			
Operator disabled compound identification.								
8 Aroclor-1260					CAS #: 11096-82-5			
9.723	9.730	-0.007	59649	0.03184	21.228	0.00- 0.00	0.00	(a)
10.024	10.024	0.000	203889	0.08374	55.828	115.86- 115.86	0.00	
10.230	10.238	-0.008	47460	0.02279	15.192	136.91- 136.91	0.00	
10.543	10.550	-0.007	42743	0.02043	13.621	140.00- 140.00	0.00	
11.022	11.027	-0.005	31186	0.03099	20.657	128.33- 128.33	0.00	
Average of Peak Concentrations =					25.305			
10 Aroclor-1268					CAS #: 11100-14-4			
Operator disabled compound identification.								
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
13.228	13.234	-0.006	266634	0.01661	11.071			(R)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(2)	+++++	+++++	406940	+++++	+++++	+++++			
	+++++						406940	0.000	<-
(3)	+++++	+++++	491322	+++++	+++++	+++++			
	+++++						491322	0.000	<-
(4)	+++++	+++++	436776	+++++	+++++	+++++			
	+++++						436776	0.000	<-
(5)	+++++	+++++	619976	+++++	+++++	+++++			
	+++++						619976	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	1144822	+++++	+++++	+++++			
	+++++						1144822	0.000	
(2)	+++++	+++++	1902580	+++++	+++++	+++++			
	+++++						1902580	0.000	
(3)	+++++	+++++	1069714	+++++	+++++	+++++			
	+++++						1069714	0.000	
(4)	+++++	+++++	1454892	+++++	+++++	+++++			
	+++++						1454892	0.000	
(5)	+++++	+++++	1011000	+++++	+++++	+++++			
	+++++						1011000	0.000	
8 Aroclor-1260(1)	1986280	1934205	1774966	1677980	1652811	+++++			
	2213400						1873274	11.414	
(2)	2615500	2439275	2323566	2229388	2207857	+++++			
	2792900						2434748	9.491	

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
	0.01000 Level 7								
(3)	2254800	2139695	2002940	1848940	1874135	+++++			
	2375500						2082668	10.143	
(4)	2246000	2094370	2023828	1814592	1842167	+++++			
	2531300						2092043	12.839	
(5)	1100260	1044560	931270	904051	891643	+++++			
	1166900						1006447	11.356	
9 Aroclor-1262(1)	+++++	+++++	2762654	+++++	+++++	+++++			
	+++++						2762654	0.000	
(2)	+++++	+++++	2303116	+++++	+++++	+++++			
	+++++						2303116	0.000	<-
(3)	+++++	+++++	4765290	+++++	+++++	+++++			
	+++++						4765290	0.000	<-
(4)	+++++	+++++	1934972	+++++	+++++	+++++			
	+++++						1934972	0.000	<-
(5)	+++++	+++++	3053472	+++++	+++++	+++++			
	+++++						3053472	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	5707960	+++++	+++++	+++++			
	+++++						5707960	0.000	
(2)	+++++	+++++	4924600	+++++	+++++	+++++			
	+++++						4924600	0.000	<-
(3)	+++++	+++++	4014208	+++++	+++++	+++++			
	+++++						4014208	0.000	<-

10B

PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

SD-83-SS

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H210447

Lab Sample ID: L50X01AE Date(s) Analyzed: 09/02/10 09/02/10

Instrument ID (1): GC14 Instrument ID (2): GC14

GC Column(1): MR-1 ID: 0.53(mm) GC Column(2): MR-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
	1	9.59	9.56	9.62	17.296		
Aroclor-1260	2	9.99	9.96	10.02	32.463		
	3	10.75	10.72	10.78	16.042		
COLUMN 1	4	11.18	11.15	11.21	16.492		
	5	11.51	11.48	11.54	18.877	20.234	
	1	9.72	9.68	9.78	21.228		
	2	10.02	9.97	10.07	55.828		
	3	10.23	10.19	10.29	15.192		
COLUMN 2	4	10.54	10.50	10.60	13.621		
	5	11.02	10.98	11.08	20.657	25.305	25.1
						RPD= 22.3	
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks for each column are required for identification of multicomponent analytes.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE: OCTOBER 19, 2010**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – SELECT TOTAL METALS, ACID VOLATILE SULFIDE / SIMULTANEOUSLY EXTRACTED METALS, TOTAL ORGANIC CARBON**
MIDDLE RIVER CENTER
SAMPLE DELIVERY GROUP (SDG) – C0H210447

SAMPLES: 15/SEDIMENT/

MIDDLE RIVER DOWNSTREAM 01	MIDDLE RIVER DOWNSTREAM 02
MIDDLE RIVER DOWNSTREAM 04	MIDDLE RIVER DOWNSTREAM SS
SD-83-01	SD-83-02
SD-83-04	SD-83-SS
SD-84-01	SD-84-02
SD-84-SS	SD-85-01
SD-85-02	SD-85-04
SD-85-SS	

Overview

The sample set for Middle River Center, SDG C0H210447, consists of fifteen (15) sediment environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for select total metals including antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc. Samples SD-85-01, SD-85-02, SD-85-04 and SD-85-SS were also analyzed for acid volatile sulfide and simultaneously extracted metals. All samples with the exception of SD-85-04 were also analyzed for total organic carbon. The samples were collected by Tetra Tech NUS on August 19 and 20, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7471A. Simultaneously extracted metals analyses were conducted using EPA method SEM. Acid volatile sulfide analyses were conducted using EPA method AVS. Total organic carbon analyses were conducted using the Lloyd Kahn method.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample / laboratory control sample duplicate recoveries, matrix spike / matrix spike duplicate recoveries, internal standards, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems

- The 14 day hold time for the total organic carbon analyses was exceeded by 5 days for samples SD-84-SS and MIDDLE RIVER DOWNSTREAM SS. The positive result reported for sample SD-84-SS was qualified as biased low, "L". The positive result reported for MIDDLE RIVER DOWNSTREAM SS was qualified as estimated, "J", as a result of conflicting noncompliances.

- The contract required detection limit (CRDL) percent recovery for zinc was > 110% quality control limit affecting the SEM analyses. Positive results < 2X CRDL were qualified as estimated "J", as a result of conflicting noncompliances.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Affecting total metals analysis

Analyte	Maximum Concentration	Action Level
Antimony[2]	0.00086 mg/L	0.215 mg/kg
Antimony[3]	0.00026 mg/L	0.065 mg/kg
Chromium[4]	0.0082 mg/kg	0.041 mg/kg
Lead[1]	0.00093 mg/L	0.2325 mg/kg
Thallium	0.00003 mg/L	0.0075 mg/kg

Affecting SEM analysis

Analyte	Maximum Concentration	Action Level
Zinc[4]	0.0068 umoles/gm	0.034 umoles/gm

(1) Maximum concentration present in a method blank affecting all samples except SD-84-SS.
(2) Maximum concentration present in a method blank affecting all samples except SD-84-SS, SD-84-01 and SD-84-02.
(3) Maximum concentration present in a method blank affecting samples SD-84-SS, SD-84-01 and SD-84-02.
(4) Maximum concentration present in a preparation blank.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for antimony were qualified "B" as a result of laboratory blank contamination.

- The matrix spike and/or matrix spike duplicate percent recoveries for antimony, arsenic, copper, nickel and selenium were < 75% quality control limit affecting the total metals analysis. The matrix spike / matrix spike duplicate percent recoveries for cadmium and zinc were < 10% quality control limit affecting the total metals analysis. The positive results reported for the aforementioned analytes were qualified as either biased low, "L" or estimated, "J", as a result of conflicting noncompliances.

- The ICP serial dilution percent differences were > 10% quality control limit (sample result > 50X IDL) for cadmium, chromium, lead, nickel and zinc affecting the SEM analysis. The positive results reported for the aforementioned analytes were qualified as estimated, "J", as a result of conflicting noncompliances.

- The internal standard recoveries for Scandium-45 and Rhodium-103 were below the 60% quality control limit for sample SD-84-SS. The positive results reported for beryllium, nickel, copper, zinc, arsenic, selenium, silver and cadmium in the affected sample were qualified as biased low, "L".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

- The percent solids for sample MIDDLE RIVER DOWNSTREAM SS was < 30%. The positive results reported for the aforementioned sample were qualified as estimated, "J".

Notes

The CRDL percent recovery for zinc was > 110% quality control limit affecting the total metals analysis. No validation actions were required as all results were > 2X CRDL.

The CRDL percent recovery for lead was < 90% quality control limit affecting the SEM analysis. No validation actions were required as all results were > 2X CRDL.

Executive Summary

Laboratory Performance: The 14 day hold time for the total organic carbon analyses was exceeded by 5 days for samples SD-84-SS and MIDDLE RIVER DOWNSTREAM SS. The CRDL percent recovery for zinc was > 110% quality control limit affecting the SEM analyses. Several analytes were present in the laboratory method / preparation blanks.

Other Factors Affecting Data Quality: The matrix spike and/or matrix spike duplicate percent recoveries for antimony, arsenic, copper, nickel and selenium were < 75% quality control limit and the matrix spike / matrix spike duplicate percent recoveries for cadmium and zinc were < 10% quality control limit affecting the total metals analysis. The ICP serial dilution percent differences were > 10% quality control limit for cadmium, chromium, lead, nickel and zinc affecting the SEM analysis. Positive results reported below the RL but above the MDL were qualified as estimated. The percent solids for sample MIDDLE RIVER DOWNSTREAM SS was < 30%.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Terri L. Solomon

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Edward Sedlmeyer for

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	MIDDLE RIVER DOWNSTREAM 01			MIDDLE RIVER DOWNSTREAM 02			MIDDLE RIVER DOWNSTREAM 04			MIDDLE RIVER DOWNSTREAM SS		
SDG: C0H210447	LAB_ID	C0H210447013			C0H210447014			C0H210447015			C0H210447012		
FRACTION: M	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	30.0			37.0			33.0			26.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.7	L	D	0.7	L	D	0.48	B	A	2.1	J	DY
ARSENIC		11	L	D	7.7	L	D	5.7	L	D	14.1	J	DY
BERYLLIUM		1.9			1.6			1.6			1.8	J	Y
CADMIUM		7.7	L	D	0.69	L	D	0.64	L	D	2.5	J	DY
CHROMIUM		246			37			33.7			119	J	Y
COPPER		122	L	D	26.2	L	D	18.8	L	D	224	J	DY
LEAD		201			27.6			16.6			173	J	Y
MERCURY		1.1			0.083			0.045	J	P	0.72	J	Y
NICKEL		50.3	L	D	25.6	L	D	24.8	L	D	41.5	J	DY
SELENIUM		2.3	L	D	1.3	L	D	1	L	D	2	J	DY
SILVER		2.7			0.11	J	P	0.062	J	P	1.4	J	Y
THALLIUM		0.29			0.23			0.19			0.25	J	Y
ZINC		417	L	D	93.5	L	D	101	L	D	372	J	DY

PROJ_NO: 02903 SDG: C0H210447 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-83-01			SD-83-02			SD-83-04			SD-83-SS		
	LAB_ID	C0H210447006			C0H210447007			C0H210447008			C0H210447005		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	62.0			73.0			69.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.78	L	D	0.097	B	A	0.14	B	A	0.2	B	A
ARSENIC		5.3	L	D	2	L	D	2	L	D	1.8	L	D
BERYLLIUM		1.4			0.62			0.72			0.59		
CADMIUM		0.83	L	D	0.076	L	D	0.11	L	D	0.39	L	D
CHROMIUM		38.6			9.4			14.8			12.1		
COPPER		27.9	L	D	8.7	L	D	12.2	L	D	23.2	L	D
LEAD		66.5			7			9.9			67.6		
MERCURY		0.35			0.036			0.045			0.035		
NICKEL		21.7	L	D	8	L	D	10.8	L	D	11.6	L	D
SELENIUM		0.99	L	D	0.33	J	DP	0.45	L	D	0.39	L	D
SILVER		0.23			0.027	J	P	0.036	J	P	0.069		
THALLIUM		0.13			0.07			0.11			0.049	J	P
ZINC		124	L	D	20.5	L	D	29.3	L	D	81.5	L	D

PROJ_NO: 02903 SDG: C0H210447 FRACTION: M MEDIA: SEDIMENT	NSAMPLE	SD-84-01			SD-84-02			SD-84-SS			SD-85-01		
	LAB_ID	C0H210447010			C0H210447011			C0H210447009			C0H210447002		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/19/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	57.0			53.0			77.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.4	L	D	0.5	L	D	2320	L	D	0.11	B	A
ARSENIC		5.1	L	D	4.3	L	D	11	L	ND	2.5	L	D
BERYLLIUM		2.4			2.7			1.2	L	N	1		
CADMIUM		113	L	D	1.9	L	D	29.5	L	ND	0.14	L	D
CHROMIUM		1750			39.6			76.6			13.8		
COPPER		77	L	D	28.4	L	D	37	L	ND	9.5	L	D
LEAD		107			38.1			31500			7.2		
MERCURY		0.32			0.14			0.19			0.022	J	P
NICKEL		29.6	L	D	34.3	L	D	13.4	L	ND	13.2	L	D
SELENIUM		1.1	L	D	0.9	L	D	0.83	L	ND	0.53	L	D
SILVER		0.19			0.081	J	P	2.2	L	N	0.042	J	P
THALLIUM		0.18			0.19			0.12			0.13		
ZINC		177	L	D	112	L	D	163	L	ND	34.5	L	D

PROJ_NO: 02903	NSAMPLE	SD-85-02			SD-85-04			SD-85-SS		
SDG: C0H210447	LAB_ID	C0H210447003			C0H210447004			C0H210447001		
FRACTION: M	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	54.0			61.0			75.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.05	B	A	0.042	B	A	1.1	L	D
ARSENIC		2	L	D	2	L	D	3.4	L	D
BERYLLIUM		1.3			0.94			0.77		
CADMIUM		0.19	L	D	0.21	L	D	8.5	L	D
CHROMIUM		12.8			9.8			55.3		
COPPER		9.7	L	D	7.1	L	D	16.9	L	D
LEAD		4.9			3.8			53.1		
MERCURY		0.02	J	P	0.009	U		0.081		
NICKEL		11.2	L	D	9.3	L	D	16.6	L	D
SELENIUM		0.55	L	D	0.45	L	D	0.47	L	D
SILVER		0.038	J	P	0.029	J	P	0.16		
THALLIUM		0.093			0.064	J	P	0.059	J	P
ZINC		35.4	L	D	29.2	L	D	127	L	D

PROJ_NO: 02903	NSAMPLE	SD-85-01			SD-85-02			SD-85-04			SD-85-SS		
SDG: C0H210447	LAB_ID	C0H210447002			C0H210447003			C0H210447004			C0H210447001		
FRACTION: AVS/SEM	SAMP_DATE	8/19/2010			8/19/2010			8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UMOLES/G			UMOLES/G			UMOLES/G			UMOLES/G		
	PCT_SOLIDS	67.0			54.0			61.0			75.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACID VOLATILE SULFIDE		0.23	U		0.29	U		0.26	U		1.5		
CADMIUM		0.00026	J	IP	0.0007	J	IP	0.00062	J	IP	0.085	J	I
CHROMIUM		0.016	J	I	0.0089	J	I	0.0057	J	I	0.61	J	I
COPPER		0.044			0.03			0.013	J	P	0.12		
LEAD		0.015	J	I	0.011	J	I	0.0071	J	I	0.16	J	I
NICKEL		0.035	J	I	0.044	J	I	0.03	J	I	0.096	J	I
SILVER		0.0002	U		0.00025	U		0.00022	U		0.00072		
ZINC		0.11	J	CI	0.35	J	I	0.24	J	I	1.2	J	I

PROJ_NO: 02903 SDG: C0H210447 FRACTION: MISC MEDIA: SEDIMENT	NSAMPLE	MIDDLE RIVER DOWNSTREAM 01			MIDDLE RIVER DOWNSTREAM 02			MIDDLE RIVER DOWNSTREAM 04			MIDDLE RIVER DOWNSTREAM SS		
	LAB_ID	C0H210447013			C0H210447014			C0H210447015			C0H210447012		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	30.0			37.0			33.0			26.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		41900			24600			32000			30800	J	HY

PROJ_NO: 02903 SDG: C0H210447 FRACTION: MISC MEDIA: SEDIMENT	NSAMPLE	SD-83-01			SD-83-02			SD-83-04			SD-83-SS		
	LAB_ID	C0H210447006			C0H210447007			C0H210447008			C0H210447005		
	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/20/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	62.0			73.0			69.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		22900			8850			9340			6710		

PROJ_NO: 02903	NSAMPLE	SD-84-01			SD-84-02			SD-84-SS			SD-85-01		
SDG: C0H210447	LAB_ID	C0H210447010			C0H210447011			C0H210447009			C0H210447002		
FRACTION: MISC	SAMP_DATE	8/20/2010			8/20/2010			8/20/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	57.0			53.0			77.0			67.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		42300			33400			7230	L	H	25500		

PROJ_NO: 02903	NSAMPLE	SD-85-02			SD-85-SS		
SDG: C0H210447	LAB_ID	C0H210447003			C0H210447001		
FRACTION: MISC	SAMP_DATE	8/19/2010			8/19/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	54.0			75.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		25500			9890		

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 01

TOTAL Metals

Lot-Sample #...: C0H210447-013
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 70

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	1.1	0.055	mg/kg	SW846 7471A	09/01/10	L500A1AF
		Dilution Factor: 0.5		Analysis Time..: 08:53	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.018	
Prep Batch #...: 0244169						
Silver	2.7	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AG
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0065	
Arsenic	11.0	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AH
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.030	
Beryllium	1.9	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AJ
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.013	
Cadmium	7.7	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AK
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Chromium	246 J	0.33	mg/kg	SW846 6020	09/01-09/02/10	L500A1AL
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.010	
Copper	122	0.33	mg/kg	SW846 6020	09/01-09/02/10	L500A1AM
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.055	
Nickel	50.3	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AN
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.019	
Lead	201	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AP
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0064	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 01

TOTAL Metals

Lot-Sample #...: C0H210447-013 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	1.7 J	0.33	mg/kg	SW846 6020	09/01-09/02/10	L500A1AQ
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0043	
Selenium	2.3	0.84	mg/kg	SW846 6020	09/01-09/02/10	L500A1AR
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.084	
Thallium	0.29	0.17	mg/kg	SW846 6020	09/01-09/02/10	L500A1AT
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0033	
Zinc	417	0.84	mg/kg	SW846 6020	09/01-09/02/10	L500A1AU
		Dilution Factor: 0.5		Analysis Time..: 19:59	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 02

TOTAL Metals

Lot-Sample #...: C0H210447-014
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	0.083	0.045	mg/kg	SW846 7471A	09/01/10	L500D1AF
		Dilution Factor: 0.5		Analysis Time..: 08:54	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.015	
Prep Batch #...: 0244169						
Silver	0.11 B	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AG
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0053	
Arsenic	7.7	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AH
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.025	
Beryllium	1.6	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AJ
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.010	
Cadmium	0.69	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AK
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0096	
Chromium	37.0 J	0.27	mg/kg	SW846 6020	09/01-09/02/10	L500D1AL
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0083	
Copper	26.2	0.27	mg/kg	SW846 6020	09/01-09/02/10	L500D1AM
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.045	
Nickel	25.6	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AN
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.015	
Lead	27.6	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AP
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0052	

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Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 02

TOTAL Metals

Lot-Sample #...: C0H210447-014 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.70 J	0.27	mg/kg	SW846 6020	09/01-09/02/10	L500D1AQ
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0036	
Selenium	1.3	0.68	mg/kg	SW846 6020	09/01-09/02/10	L500D1AR
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.069	
Thallium	0.23	0.14	mg/kg	SW846 6020	09/01-09/02/10	L500D1AT
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0027	
Zinc	93.5	0.68	mg/kg	SW846 6020	09/01-09/02/10	L500D1AU
		Dilution Factor: 0.5		Analysis Time..: 20:03	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.089	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 04

TOTAL Metals

Lot-Sample #...: C0H210447-015
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 67

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	0.045 B	0.050	mg/kg	SW846 7471A	09/01/10	L500E1AF
		Dilution Factor: 0.5		Analysis Time..: 08:56	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.016	
Prep Batch #...: 0244169						
Silver	0.062 B	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AG
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0059	
Arsenic	5.7	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AH
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.027	
Beryllium	1.6	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AJ
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.011	
Cadmium	0.64	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AK
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.011	
Chromium	33.7 J	0.30	mg/kg	SW846 6020	09/01-09/02/10	L500E1AL
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0092	
Copper	18.8	0.30	mg/kg	SW846 6020	09/01-09/02/10	L500E1AM
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.050	
Nickel	24.8	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AN
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.017	
Lead	16.6	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AP
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0057	

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Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM 04

TOTAL Metals

Lot-Sample #...: C0H210447-015 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.48 J	0.30	mg/kg	SW846 6020	09/01-09/02/10	L500E1AQ
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0039	
Selenium	1.0	0.75	mg/kg	SW846 6020	09/01-09/02/10	L500E1AR
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.076	
Thallium	0.19	0.15	mg/kg	SW846 6020	09/01-09/02/10	L500E1AT
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0030	
Zinc	101	0.75	mg/kg	SW846 6020	09/01-09/02/10	L500E1AU
		Dilution Factor: 0.5		Analysis Time..: 20:07	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.098	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM SS

TOTAL Metals

Lot-Sample #...: C0H210447-012
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 74

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.72**	**0.062**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X71AF**
		Dilution Factor: 0.5		Analysis Time..: 08:51	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.021	
Prep Batch #...: 0244169						
Silver	**1.4**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AG**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0074	
Arsenic	**14.1**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AH**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.034	
Beryllium	**1.8**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.014	
Cadmium	**2.5**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AK**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.013	
Chromium	**119 J**	**0.38**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AL**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Copper	**224**	**0.38**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AM**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.062	
Nickel	**41.5**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AN**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.021	
Lead	**173**	**0.19**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X71AP**
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0072	

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Tetra Tech NUS, Inc

Client Sample ID: MIDDLE RIVER DOWNSTREAM SS

TOTAL Metals

Lot-Sample #...: C0H210447-012 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	2.1 J	0.38	mg/kg	SW846 6020	09/01-09/02/10	L50X71AQ
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0049	
Selenium	2.0	0.95	mg/kg	SW846 6020	09/01-09/02/10	L50X71AR
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.095	
Thallium	0.25	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50X71AT
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0038	
Zinc	372	0.95	mg/kg	SW846 6020	09/01-09/02/10	L50X71AU
		Dilution Factor: 0.5		Analysis Time..: 19:54	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.12	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-01

TOTAL Metals

Lot-Sample #...: C0H210447-006 Matrix.....: SOLID
Date Sampled...: 08/20/10 Date Received..: 08/21/10
% Moisture.....: 38

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	0.35	0.027	mg/kg	SW846 7471A	09/01/10	L50X11AF
		Dilution Factor: 0.5		Analysis Time..: 08:36	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0088	
Prep Batch #...: 0244169						
Silver	0.23	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AG
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0032	
Arsenic	5.3	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AH
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.015	
Beryllium	1.4	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AJ
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0061	
Cadmium	0.83	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AK
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0057	
Chromium	38.6 J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50X11AL
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0049	
Copper	27.9	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50X11AM
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.027	
Nickel	21.7	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AN
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0091	
Lead	66.5	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AP
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0031	

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Tetra Tech NUS, Inc

Client Sample ID: SD-83-01

TOTAL Metals

Lot-Sample #...: C0H210447-006 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.78 J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50X11AQ
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0021	
Selenium	0.99	0.40	mg/kg	SW846 6020	09/01-09/02/10	L50X11AR
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.041	
Thallium	0.13	0.081	mg/kg	SW846 6020	09/01-09/02/10	L50X11AT
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0016	
Zinc	124	0.40	mg/kg	SW846 6020	09/01-09/02/10	L50X11AU
		Dilution Factor: 0.5		Analysis Time..: 19:29	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.052	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-02

TOTAL Metals

Lot-Sample #...: C0H210447-007
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.036**	**0.022**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X21AF**
		Dilution Factor: 0.5		Analysis Time..: 08:42	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0074	
Prep Batch #...: 0244169						
Silver	**0.027 B**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AG**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0027	
Arsenic	**2.0**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AH**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Beryllium	**0.62**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0051	
Cadmium	**0.076**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AK**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0048	
Chromium	**9.4 J**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AL**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0042	
Copper	**8.7**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AM**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.022	
Nickel	**8.0**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AN**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0077	
Lead	**7.0**	**0.068**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X21AP**
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0026	

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Tetra Tech NUS, Inc

Client Sample ID: SD-83-02

TOTAL Metals

Lot-Sample #...: C0H210447-007 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.097 B,J	0.14	mg/kg	SW846 6020	09/01-09/02/10	L50X21AQ
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0018	
Selenium	0.33 B	0.34	mg/kg	SW846 6020	09/01-09/02/10	L50X21AR
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.034	
Thallium	0.070	0.068	mg/kg	SW846 6020	09/01-09/02/10	L50X21AT
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0014	
Zinc	20.5	0.34	mg/kg	SW846 6020	09/01-09/02/10	L50X21AU
		Dilution Factor: 0.5		Analysis Time..: 19:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.044	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-04

TOTAL Metals

Lot-Sample #...: C0H210447-008 **Matrix.....:** SOLID
Date Sampled...: 08/20/10 **Date Received..:** 08/21/10
% Moisture.....: 31

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.045**	**0.024**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X31AF**
		Dilution Factor: 0.5		Analysis Time..: 08:44	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0079	
Prep Batch #...: 0244169						
Silver	**0.036 B**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AG**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0028	
Arsenic	**2.0**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AH**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.013	
Beryllium	**0.72**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0055	
Cadmium	**0.11**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AK**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0051	
Chromium	**14.8 J**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AL**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0044	
Copper	**12.2**	**0.15**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AM**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.024	
Nickel	**10.8**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AN**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0082	
Lead	**9.9**	**0.073**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X31AP**
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0028	

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Tetra Tech NUS, Inc

Client Sample ID: SD-83-04

TOTAL Metals

Lot-Sample #...: C0H210447-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.14 B,J	0.15	mg/kg	SW846 6020	09/01-09/02/10	L50X31AQ
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0019	
Selenium	0.45	0.36	mg/kg	SW846 6020	09/01-09/02/10	L50X31AR
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.037	
Thallium	0.11	0.073	mg/kg	SW846 6020	09/01-09/02/10	L50X31AT
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0015	
Zinc	29.3	0.36	mg/kg	SW846 6020	09/01-09/02/10	L50X31AU
		Dilution Factor: 0.5		Analysis Time..: 19:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.047	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-83-SS

TOTAL Metals

Lot-Sample #...: C0H210447-005 Matrix.....: SOLID
Date Sampled...: 08/20/10 Date Received..: 08/21/10
% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.035**	**0.023**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X01AF**
		Dilution Factor: 0.5		Analysis Time..: 08:31	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0075	
Prep Batch #...: 0244169						
Silver	**0.069**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AG**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0027	
Arsenic	**1.8**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AH**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Beryllium	**0.59**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0052	
Cadmium	**0.39**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AK**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0048	
Chromium	**12.1 J**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AL**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0042	
Copper	**23.2**	**0.14**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AM**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.023	
Nickel	**11.6**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AN**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0078	
Lead	**67.6**	**0.069**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X01AP**
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0026	

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Tetra Tech NUS, Inc

Client Sample ID: SD-83-SS

TOTAL Metals

Lot-Sample #...: C0H210447-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.20 J	0.14	mg/kg	SW846 6020	09/01-09/02/10	L50X01AQ
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0018	
Selenium	0.39	0.34	mg/kg	SW846 6020	09/01-09/02/10	L50X01AR
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.035	
Thallium	0.049 B	0.069	mg/kg	SW846 6020	09/01-09/02/10	L50X01AT
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0014	
Zinc	81.5	0.34	mg/kg	SW846 6020	09/01-09/02/10	L50X01AU
		Dilution Factor: 0.5		Analysis Time..: 19:10	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.045	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-01

TOTAL Metals

Lot-Sample #...: C0H210447-010
Date Sampled...: 08/20/10 Date Received..: 08/21/10
% Moisture.....: 43
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.32**	**0.029**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X51AF**
		Dilution Factor: 0.5		Analysis Time..: 08:48	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0096	
Prep Batch #...: 0244169						
Silver	**0.19**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AG**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0034	
Arsenic	**5.1**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AH**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.016	
Beryllium	**2.4**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0066	
Cadmium	**113**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AK**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0062	
Chromium	**1750 J**	**0.18**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AL**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0054	
Copper	**77.0**	**0.18**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AM**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.029	
Nickel	**29.6**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AN**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.010	
Lead	**107**	**0.088**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X51AP**
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0034	

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Tetra Tech NUS, Inc

Client Sample ID: SD-84-01

TOTAL Metals

Lot-Sample #...: C0H210447-010 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	2.4 J	0.18	mg/kg	SW846 6020	09/01-09/05/10	L50X51AQ
		Dilution Factor: 0.5		Analysis Time..: 12:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0023	
Selenium	1.1	0.44	mg/kg	SW846 6020	09/01-09/02/10	L50X51AR
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.044	
Thallium	0.18	0.088	mg/kg	SW846 6020	09/01-09/02/10	L50X51AT
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0018	
Zinc	177	0.44	mg/kg	SW846 6020	09/01-09/02/10	L50X51AU
		Dilution Factor: 0.5		Analysis Time..: 19:46	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.057	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-02

TOTAL Metals

Lot-Sample #...: C0H210447-011
Date Sampled...: 08/20/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 47

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	0.14	0.031	mg/kg	SW846 7471A	09/01/10	L50X61AF
		Dilution Factor: 0.5		Analysis Time..: 08:49	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.010	
Prep Batch #...: 0244169						
Silver	0.081 B	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AG
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0037	
Arsenic	4.3	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AH
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.017	
Beryllium	2.7	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AJ
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0070	
Cadmium	1.9	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AK
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0066	
Chromium	39.6 J	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50X61AL
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0057	
Copper	28.4	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50X61AM
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.031	
Nickel	34.3	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AN
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.011	
Lead	38.1	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AP
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0036	

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Tetra Tech NUS, Inc

Client Sample ID: SD-84-02

TOTAL Metals

Lot-Sample #...: C0H210447-011 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.50 J	0.19	mg/kg	SW846 6020	09/01-09/05/10	L50X61AQ
		Dilution Factor: 0.5		Analysis Time..: 12:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0024	
Selenium	0.90	0.47	mg/kg	SW846 6020	09/01-09/02/10	L50X61AR
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.047	
Thallium	0.19	0.094	mg/kg	SW846 6020	09/01-09/02/10	L50X61AT
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0019	
Zinc	112	0.47	mg/kg	SW846 6020	09/01-09/02/10	L50X61AU
		Dilution Factor: 0.5		Analysis Time..: 19:50	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.061	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-84-SS

TOTAL Metals

Lot-Sample #...: C0H210447-009
Date Sampled...: 08/20/10 Date Received..: 08/21/10
% Moisture.....: 23
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.19**	**0.021**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50X41AF**
		Dilution Factor: 0.5		Analysis Time..: 08:46	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0071	
Prep Batch #...: 0244169						
Silver	**2.2**	**0.065**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AG**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0025	
Arsenic	**11.0**	**0.065**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AH**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Beryllium	**1.2**	**0.065**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AJ**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0049	
Cadmium	**29.5**	**0.065**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AK**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0045	
Chromium	**76.6 J**	**0.13**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AL**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0040	
Copper	**37.0**	**0.13**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AM**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.021	
Nickel	**13.4**	**0.065**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50X41AN**
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0073	
Lead	**31500**	**6.5**	**mg/kg**	**SW846 6020**	**09/01-09/05/10**	**L50X41AP**
		Dilution Factor: 50		Analysis Time..: 12:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.25	

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Tetra Tech NUS, Inc

Client Sample ID: SD-84-SS

TOTAL Metals

Lot-Sample #...: C0H210447-009 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	2320 J	13.0	mg/kg	SW846 6020	09/01-09/05/10	L50X41AQ
		Dilution Factor: 50		Analysis Time..: 12:13	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.17	
Selenium	0.83	0.32	mg/kg	SW846 6020	09/01-09/02/10	L50X41AR
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.033	
Thallium	0.12	0.065	mg/kg	SW846 6020	09/01-09/02/10	L50X41AT
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0013	
Zinc	163	0.32	mg/kg	SW846 6020	09/01-09/02/10	L50X41AU
		Dilution Factor: 0.5		Analysis Time..: 19:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.042	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-01

TOTAL Metals

Lot-Sample #...: C0H210447-002 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/21/10
% Moisture.....: 33

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.022 B**	**0.025**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50XT1AL**
		Dilution Factor: 0.5		Analysis Time..: 08:26	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0082	
Prep Batch #...: 0244083						
Silver	ND	0.0017	umoles/gm	EPA SEM	09/01-09/02/10	L50XT1A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00020	
Chromium	**0.016**	**0.0036**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00031	
Cadmium	**0.00026 B**	**0.0017**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1A4**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000054	
Copper	**0.044**	**0.015**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0013	
Nickel	**0.035**	**0.026**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00073	
Lead	**0.015**	**0.0011**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00036	
Zinc	**0.11 J**	**0.057**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XT1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0042	
Prep Batch #...: 0244169						
Silver	**0.042 B**	**0.075**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50XT1AM**
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0029	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-01

TOTAL Metals

Lot-Sample #...: C0H210447-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	2.5	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AN
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.014	
Beryllium	1.0	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AP
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0056	
Cadmium	0.14	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AQ
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0052	
Chromium	13.8 J	0.15	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AR
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0046	
Copper	9.5	0.15	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AT
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.025	
Nickel	13.2	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AU
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0085	
Lead	7.2	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AV
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0028	
Antimony	0.11 B,J	0.15	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AW
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0019	
Selenium	0.53	0.37	mg/kg	SW846 6020	09/01-09/02/10	L50XT1AX
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.038	
Thallium	0.13	0.075	mg/kg	SW846 6020	09/01-09/02/10	L50XT1A0
		Dilution Factor: 0.5		Analysis Time..: 18:57	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0015	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-01

TOTAL Metals

Lot-Sample #...: C0H210447-002

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	34.5	0.37	mg/kg	SW846 6020	09/01-09/02/10	L50XT1A1

Dilution Factor: 0.5
Analysis Time..: 18:57
Analyst ID.....: 400149
Instrument ID..: ICPMS2
MS Run #.....: 0244098
MDL.....: 0.049

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-02

TOTAL Metals

Lot-Sample #...: C0H210447-003
Date Sampled...: 08/19/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 46

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.020 B**	**0.031**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50XW1AL**
		Dilution Factor: 0.5		Analysis Time..: 08:28	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.010	
Prep Batch #...: 0244083						
Silver	ND	0.0021	umoles/gm	EPA SEM	09/01-09/02/10	L50XW1A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00025	
Chromium	**0.0089**	**0.0045**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00039	
Cadmium	**0.00070 B**	**0.0021**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1A4**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000067	
Copper	**0.030**	**0.018**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0016	
Nickel	**0.044**	**0.032**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00091	
Lead	**0.011**	**0.0013**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00044	
Zinc	**0.35 J**	**0.071**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XW1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0052	
Prep Batch #...: 0244169						
Silver	**0.038 B**	**0.093**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50XW1AM**
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0036	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-02

TOTAL Metals

Lot-Sample #...: C0H210447-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	2.0	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AN
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.017	
Beryllium	1.3	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AP
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0069	
Cadmium	0.19	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AQ
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0065	
Chromium	12.8 J	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AR
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0057	
Copper	9.7	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AT
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.031	
Nickel	11.2	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AU
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.010	
Lead	4.9	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AV
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0035	
Antimony	0.050 B,J	0.19	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AW
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0024	
Selenium	0.55	0.46	mg/kg	SW846 6020	09/01-09/02/10	L50XW1AX
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.046	
Thallium	0.093	0.093	mg/kg	SW846 6020	09/01-09/02/10	L50XW1A0
		Dilution Factor: 0.5		Analysis Time..: 19:01	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0019	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-02

TOTAL Metals

Lot-Sample #...: C0H210447-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	35.4	0.46	mg/kg	SW846 6020	09/01-09/02/10	L50XW1A1

Dilution Factor: 0.5 Analysis Time..: 19:01 Analyst ID.....: 400149
Instrument ID..: ICPMS2 MS Run #.....: 0244098 MDL.....: 0.060

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-04

TOTAL Metals

Lot-Sample #...: C0H210447-004
Date Sampled...: 08/19/10 Date Received..: 08/21/10 Matrix.....: SOLID
% Moisture.....: 39

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	ND	0.027	mg/kg	SW846 7471A	09/01/10	L50XX1AL
		Dilution Factor: 0.5		Analysis Time..: 08:29	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0090	
Prep Batch #...: 0244083						
Silver	ND	0.0019	umoles/gm	EPA SEM	09/01-09/02/10	L50XX1A3
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00022	
Chromium	**0.0057**	**0.0040**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00035	
Cadmium	**0.00062 B**	**0.0018**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1A4**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000059	
Copper	**0.013 B**	**0.016**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0015	
Nickel	**0.030**	**0.028**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00081	
Lead	**0.0071**	**0.0012**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00039	
Zinc	**0.24 J**	**0.063**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XX1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0047	
Prep Batch #...: 0244169						
Silver	**0.029 B**	**0.082**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50XX1AM**
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0032	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-04

TOTAL Metals

Lot-Sample #...: C0H210447-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	2.0	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AN
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.015	
Beryllium	0.94	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AP
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0062	
Cadmium	0.21	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AQ
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0058	
Chromium	9.8 J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AR
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0050	
Copper	7.1	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AT
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.027	
Nickel	9.3	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AU
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0093	
Lead	3.8	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AV
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0031	
Antimony	0.042 B,J	0.16	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AW
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0021	
Selenium	0.45	0.41	mg/kg	SW846 6020	09/01-09/02/10	L50XX1AX
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.041	
Thallium	0.064 B	0.082	mg/kg	SW846 6020	09/01-09/02/10	L50XX1A0
		Dilution Factor: 0.5		Analysis Time..: 19:06	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0016	

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Tetra Tech NUS, Inc

Client Sample ID: SD-85-04

TOTAL Metals

Lot-Sample #...: C0H210447-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	29.2	0.41	mg/kg	SW846 6020	09/01-09/02/10	L50XX1A1

Dilution Factor: 0.5 Analysis Time..: 19:06 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244098 MDL.....: 0.053

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

TOTAL Metals

Lot-Sample #...: C0H210447-001
Date Sampled...: 08/19/10 Date Received..: 08/21/10
% Moisture.....: 25
Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0244012						
Mercury	**0.081**	**0.022**	**mg/kg**	**SW846 7471A**	**09/01/10**	**L50XR1AF**
		Dilution Factor: 0.5		Analysis Time..: 08:25	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0244005	MDL.....: 0.0073	
Prep Batch #...: 0244083						
Silver	**0.00072 B**	**0.0015**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1AW**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00018	
Chromium	**0.61 E**	**0.0032**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1AV**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00028	
Cadmium	**0.085 E**	**0.0015**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1AX**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.000048	
Copper	**0.12**	**0.013**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1A0**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0012	
Nickel	**0.096 E**	**0.023**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1A1**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00066	
Lead	**0.16 E**	**0.00097**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1A2**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.00032	
Zinc	**1.2 J,E**	**0.051**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L50XR1A3**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRACEICP		MS Run #.....:	MDL.....: 0.0038	
Prep Batch #...: 0244169						
Silver	**0.16**	**0.067**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L50XR1AG**
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0026	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

TOTAL Metals

Lot-Sample #...: C0H210447-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Arsenic	3.4	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AH
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.012	
Beryllium	0.77	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AJ
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0050	
Cadmium	8.5	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AK
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0047	
Chromium	55.3 J	0.13	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AL
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0041	
Copper	16.9	0.13	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AM
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.022	
Nickel	16.6	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AN
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0076	
Lead	53.1	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AP
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0025	
Antimony	1.1 J	0.13	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AQ
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0017	
Selenium	0.47	0.33	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AR
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.034	
Thallium	0.059 B	0.067	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AT
		Dilution Factor: 0.5		Analysis Time..: 18:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0244098	MDL.....: 0.0013	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: SD-85-SS

TOTAL Metals

Lot-Sample #...: C0H210447-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	127	0.33	mg/kg	SW846 6020	09/01-09/02/10	L50XR1AU

Dilution Factor: 0.5 Analysis Time..: 18:37 Analyst ID.....: 400149

Instrument ID..: ICPMS2 MS Run #.....: 0244098 MDL.....: 0.043

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

E Matrix interference.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: EPA AVS
Lot Number: C0H210447

AMBIENT MICRO-MIDI ACID PURGE

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-85-SS	C0H210447 001	L50XR1A4	1.5	umoles/g —	0.21	0.67	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-85-01	C0H210447 002	L50XT1AF	ND	umoles/g —	0.23	0.75	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-85-02	C0H210447 003	L50XW1AF	ND	umoles/g —	0.29	0.92	1	9/1/2010 - 9/1/2010 14:11	0244072
SD-85-04	C0H210447 004	L50XX1AF	ND	umoles/g —	0.26	0.82	1	9/1/2010 - 9/1/2010 14:11	0244072

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Lot Number: C0H210447

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-85-SS	C0H210447 001	L50XR1AA	74.8	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-85-01	C0H210447 002	L50XT1AG	68.8	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-85-02	C0H210447 003	L50XW1AG	54.0	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-85-04	C0H210447 004	L50XX1AG	60.7	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-83-SS	C0H210447 005	L50X01AA	72.6	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-83-01	C0H210447 006	L50X11AA	61.8	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-83-02	C0H210447 007	L50X21AA	73.4	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-83-04	C0H210447 008	L50X31AA	68.6	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-84-SS	C0H210447 009	L50X41AA	76.9	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-84-01	C0H210447 010	L50X51AA	56.6	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
SD-84-02	C0H210447 011	L50X61AA	53.4	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
MIDDLE RIVER DOWNSTREAM SS	C0H210447 012	L50X71AA	26.5	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
MIDDLE RIVER DOWNSTREAM 01	C0H210447 013	L500A1AA	29.9	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
MIDDLE RIVER DOWNSTREAM 02	C0H210447 014	L500D1AA	36.5	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030
MIDDLE RIVER DOWNSTREAM 04	C0H210447 015	L500E1AA	33.2	%	0.0	1.0	1	8/22/2010 - 8/23/2010 06:01	0234030

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH **Method:** EPA Lloyd Kahn

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0H210447

Matrix: SOLID

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
SD-85-SS	C0H210447 001	L50XR1AC	9890	mg/kg	808	2970	2.22	8/25/2010 - 8/26/2010 09:12	0236226
SD-85-01	C0H210447 002	L50XT1AH	25500	mg/kg	755	2770	1.85	8/25/2010 - 8/26/2010 10:39	0236226
SD-85-02	C0H210447 003	L50XW1AH	25500	mg/kg	979	3590	1.94	8/25/2010 - 8/26/2010 10:54	0236226
SD-83-SS	C0H210447 005	L50X01AC	6710	mg/kg	675	2480	1.8	8/25/2010 - 8/26/2010 11:16	0236226
SD-83-01	C0H210447 006	L50X11AC	22900	mg/kg	781	2870	1.77	8/25/2010 - 8/26/2010 11:31	0236226
SD-83-02	C0H210447 007	L50X21AC	8850	mg/kg	687	2520	1.85	8/25/2010 - 8/26/2010 11:45	0236226
SD-83-04	C0H210447 008	L50X31AC	9340	mg/kg	762	2800	1.92	8/25/2010 - 8/26/2010 12:00	0236226
SD-84-SS	C0H210447 009	L50X41AC	7230	mg/kg	595	2180	1.68	9/3/2010 - 9/8/2010 00:00	0246173
SD-84-01	C0H210447 010	L50X51AC	42300	mg/kg	867	3180	1.8	8/25/2010 - 8/26/2010 12:29	0236226
SD-84-02	C0H210447 011	L50X61AC	33400	mg/kg	1010	3710	1.98	8/25/2010 - 8/26/2010 12:43	0236226
MIDDLE RIVER DOWNSTREAM SS	C0H210447 012	L50X71AC	30800	mg/kg	1760	6470	1.71	9/7/2010 - 9/8/2010 00:00	0246173
MIDDLE RIVER DOWNSTREAM 01	C0H210447 013	L500A1AC	41900	mg/kg	1720	6320	1.89	8/25/2010 - 8/26/2010 13:42	0236226
MIDDLE RIVER DOWNSTREAM 02	C0H210447 014	L500D1AC	24600	mg/kg	1380	5060	1.85	8/25/2010 - 8/26/2010 13:56	0236226
MIDDLE RIVER DOWNSTREAM 04	C0H210447 015	L500E1AC	32000	mg/kg	1520	5570	1.85	8/25/2010 - 8/26/2010 14:11	0236226

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H210447

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 21, 2010. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

Several samples were analyzed at a dilution due to matrix interference and/or concentration of compounds detected.

Several samples had the surrogates diluted out.

PCBs:
Sample SD-83-02 had the surrogate recovery of tetrachloro-m-xylene recover above the control limit. The recovery of decachlorobiphenyl was within the control limits.

Metals:
The serial dilution percent difference was outside the control limit for SEM chromium, cadmium, nickel, lead, and zinc for sample SD-85-SS.

Sample SD-84-SS was over the instrument's linear range for lead and antimony, and required dilution.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spikes of sample SD-85-SS recovered below the control limit for arsenic, cadmium, copper, zinc and selenium. The matrix spike duplicate recovered below the control limit for antimony, and nickel. The RPD for antimony and nickel was above the control limit.

Metals (cont.):
For the matrix spikes of sample SD-85-SS, chromium and lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
The RPD for the duplicate analysis was above the control limit for TOC.

Samples SD-84-SS and MIDDLE RIVER DOWNSTREAM SS were originally analyzed within the holding time for TOC but the analytical run was not valid. The samples were re-analyzed outside of holding time.

METHODS SUMMARY

C0H210447

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Acid Volatile Sulfide in Sediment	EPA AVS	
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Simultaneouly Extractable Metals	EPA SEM	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H210447

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L50XR	001	SD-85-SS	08/19/10	16:32
L50XT	002	SD-85-01	08/19/10	16:34
L50XW	003	SD-85-02	08/19/10	16:36
L50XX	004	SD-85-04	08/19/10	16:38
L50X0	005	SD-83-SS	08/20/10	10:25
L50X1	006	SD-83-01	08/20/10	10:27
L50X2	007	SD-83-02	08/20/10	10:29
L50X3	008	SD-83-04	08/20/10	10:31
L50X4	009	SD-84-SS	08/20/10	11:03
L50X5	010	SD-84-01	08/20/10	11:05
L50X6	011	SD-84-02	08/20/10	11:07
L50X7	012	MIDDLE RIVER DOWNSTREAM SS	08/20/10	13:37
L500A	013	MIDDLE RIVER DOWNSTREAM 01	08/20/10	13:39
L500D	014	MIDDLE RIVER DOWNSTREAM 02	08/20/10	13:41
L500E	015	MIDDLE RIVER DOWNSTREAM 04	08/20/10	13:43

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TAL-4124 (1007)

Client: TETRA TECH	Project Manager: MIKE MARTIN	Date:	Chain of Custody Number: 141293
Address: 20251 CENTURY BLVD SUITE 200	Telephone Number (Area Code)/Fax Number: 3015283022 301-528-3000	Lab Number:	Page 1 of 2
City: GERMANTOWN / State: MD / Zip Code: 20874	Site Contact: Tony Apanovage	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): MRC SEDIMENT SAMPLING	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: MIDDLE RIVER, MD			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	PD Metals	PAHs	PCBs	TOC	AVS, SEM	Special Instructions/ Conditions of Receipt
SD-85-SS	8/19/10	1632			X		X						X	X	X	X	X	
SD-85-01	↓	1634			↓		↓						X	X	X	X	X	
SD-85-02	↓	1636											X	X	X	X	X	
SD-85-04	8/19/10	1638											X	X	X		X	
SD-83-SS	8/20/10	1025											X	X	X			
SD-83-01	↓	1027											X	X	X			
SD-83-02		1029											X	X	X			
SD-83-04		1031											X	X	X			
SD-84-SS		1103											X	X	X			
SD-84-01		1105											X	X	X			
SD-84-02	8/20/10	1107			X		X						X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date: 8/20/10	Time: 1520	1. Received By	Date: 8/20/10	Time: 1520
2. Relinquished By	Date: 8/20/10	Time: 1615	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/21/10	Time: 1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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COH210447

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TetRA Tech	mike martin		154268
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
20251 Century Blvd. Suite 2000	301-528-3022 301-528-3000		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Germantown / MD / 20874	Tony Provenzano		
Project Name and Location (State)	**Carrier/Waybill Number**		
MAC Sed. Sampling, middle River, MD			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PAHs	PCBs	TOC	Special Instructions/ Conditions of Receipt
Middle River Downstream SS	8/20/10	1337			X		X						X	X	X	
" " " 01	↓	1339			↓		↓						X	X	X	
" " 02	↓	1341			↓		↓						X	X	X	
" " 04	8/20/10	1343			X		X						X	X	X	

MA = Duplicate

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/20/10	1520	1. Received By	8/20/10	1520
2. Relinquished By	8/20/10	1615	2. Received By		
3. Relinquished By			3. Received By	8/21/10	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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COH210447

HOLDTIME

SDG C0H210447

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
AVS	UMOLE	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
AVS	UMOLE	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
SEM	UMOLE	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
SEM	UMOLE	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
HG	MG/KG	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/01/2010	13	0	13
HG	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
HG	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	09/01/2010	09/01/2010	12	0	12
M	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	SD-85-04	C0H210447004	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	09/01/2010	09/02/2010	13	1	14
M	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/05/2010	12	4	16
M	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
M	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/01/2010	09/02/2010	12	1	13
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447013	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-85-02	C0H210447003	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
TOC	MG/KG	SD-85-01	C0H210447002	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
TOC	MG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	09/03/2010	09/08/2010	14	5	19
TOC	MG/KG	SD-84-02	C0H210447011	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-84-01	C0H210447010	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-04	C0H210447008	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-02	C0H210447007	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-83-01	C0H210447006	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447012	NM	08/20/2010	09/07/2010	09/08/2010	18	1	19
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447015	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	MIDDLE RIVER DOWNST	C0H210447014	NM	08/20/2010	08/25/2010	08/26/2010	5	1	6
TOC	MG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	08/25/2010	08/26/2010	6	1	7
SIM	UG/KG	SD-83-SS	C0H210447005	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-85-SS	C0H210447001	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-SS	C0H210447001	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-04	C0H210447004	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-04	C0H210447004	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-02	C0H210447003	SUR	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-02	C0H210447003	NM	08/19/2010	08/24/2010	08/27/2010	5	3	8
SIM	UG/KG	SD-85-01	C0H210447002	SUR	08/19/2010	08/24/2010	08/31/2010	5	7	12
SIM	UG/KG	SD-85-01	C0H210447002	NM	08/19/2010	08/24/2010	08/31/2010	5	7	12
SIM	UG/KG	SD-84-SS	C0H210447009	SUR	08/20/2010	08/24/2010	08/31/2010	4	7	11
SIM	UG/KG	SD-84-SS	C0H210447009	NM	08/20/2010	08/24/2010	08/31/2010	4	7	11
SIM	UG/KG	SD-84-02	C0H210447011	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-84-02	C0H210447011	NM	08/20/2010	08/24/2010	08/27/2010	4	3	7
SIM	UG/KG	SD-84-01	C0H210447010	SUR	08/20/2010	08/24/2010	08/27/2010	4	3	7

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H210447

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			ICV1 MET4061-10						
	Antimony	0.0800	0.0800	100.0	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Arsenic	0.0804	0.0800	100.5	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Beryllium	0.0807	0.0800	100.9	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Cadmium	0.0782	0.0800	97.7	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Chromium	0.0793	0.0800	99.1	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Copper	0.0815	0.0800	101.9	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Lead	0.0811	0.0800	101.4	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Nickel	0.0802	0.0800	100.2	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Selenium	0.0811	0.0800	101.4	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Silver	0.0781	0.0800	97.6	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Thallium	0.0836	0.0800	104.5	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
	Zinc	0.0826	0.0800	103.2	90.0 - 110.0	MS	9/2/2010	13:42	M00902A, gen
CCV1			CCV1-1 MET4282-10						
	Antimony	0.0964	0.1000	96.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Arsenic	0.1003	0.1000	100.3	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Beryllium	0.1004	0.1000	100.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Cadmium	0.0984	0.1000	98.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Chromium	0.0974	0.1000	97.4	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Copper	0.1021	0.1000	102.1	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Lead	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Nickel	0.1012	0.1000	101.2	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Selenium	0.1005	0.1000	100.5	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Silver	0.0987	0.1000	98.7	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Thallium	0.1035	0.1000	103.5	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen
	Zinc	0.1047	0.1000	104.7	90.0 - 110.0	MS	9/2/2010	14:09	M00902A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H210447

Initial Calibration Source: Inorganic

Instrument: ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0952	0.1000	95.2	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Arsenic	0.1005	0.1000	100.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Beryllium	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Cadmium	0.0985	0.1000	98.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Chromium	0.0961	0.1000	96.1	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Copper	0.1027	0.1000	102.7	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Lead	0.1061	0.1000	106.1	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Nickel	0.1022	0.1000	102.2	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Selenium	0.1000	0.1000	100.0	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Thallium	0.1055	0.1000	105.5	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
	Zinc	0.1069	0.1000	106.9	90.0 - 110.0	MS	9/2/2010	15:15	M00902A, gen
CCV3			CCV1-3						
	Antimony	0.0950	0.1000	95.0	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Arsenic	0.0999	0.1000	99.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Beryllium	0.0966	0.1000	96.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Cadmium	0.0984	0.1000	98.4	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Chromium	0.0966	0.1000	96.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Copper	0.1025	0.1000	102.5	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Lead	0.1023	0.1000	102.3	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Nickel	0.1019	0.1000	101.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Selenium	0.0999	0.1000	99.9	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Silver	0.0973	0.1000	97.3	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Thallium	0.1018	0.1000	101.8	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen
	Zinc	0.1076	0.1000	107.6	90.0 - 110.0	MS	9/2/2010	16:12	M00902A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H210447

Initial Calibration Source: Inorganic

Instrument: ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4			CCV1-4						
	Antimony	0.0954	0.1000	95.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Arsenic	0.1008	0.1000	100.8	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Beryllium	0.0978	0.1000	97.8	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Cadmium	0.0970	0.1000	97.0	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Chromium	0.0971	0.1000	97.1	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Copper	0.1033	0.1000	103.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Lead	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Nickel	0.1027	0.1000	102.7	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Selenium	0.1003	0.1000	100.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Silver	0.0974	0.1000	97.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Thallium	0.1033	0.1000	103.3	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
	Zinc	0.1074	0.1000	107.4	90.0 - 110.0	MS	9/2/2010	17:14	M00902A, gen
CCV5			CCV1-5						
	Antimony	0.0950	0.1000	95.0	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Arsenic	0.1008	0.1000	100.8	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Beryllium	0.0963	0.1000	96.3	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Cadmium	0.0977	0.1000	97.7	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Chromium	0.0972	0.1000	97.2	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Copper	0.1045	0.1000	104.5	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Lead	0.1035	0.1000	103.5	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Nickel	0.1042	0.1000	104.2	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Selenium	0.0997	0.1000	99.7	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Silver	0.0970	0.1000	97.0	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Thallium	0.1028	0.1000	102.8	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen
	Zinc	0.1079	0.1000	107.9	90.0 - 110.0	MS	9/2/2010	18:14	M00902A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H210447

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6			CCV1-6						
	Antimony	0.0947	0.1000	94.7	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Arsenic	0.1012	0.1000	101.2	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Beryllium	0.0980	0.1000	98.0	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Cadmium	0.0974	0.1000	97.4	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Chromium	0.0975	0.1000	97.5	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Copper	0.1034	0.1000	103.4	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Lead	0.1024	0.1000	102.4	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Nickel	0.1037	0.1000	103.7	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Selenium	0.1010	0.1000	101.0	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Silver	0.0963	0.1000	96.3	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Thallium	0.1021	0.1000	102.1	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
	Zinc	0.1062	0.1000	106.2	90.0 - 110.0	MS	9/2/2010	19:17	M00902A, gen
CCV7			CCV1-7						
	Antimony	0.0968	0.1000	96.8	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Arsenic	0.0998	0.1000	99.8	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Beryllium	0.0978	0.1000	97.8	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Cadmium	0.0969	0.1000	96.9	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Chromium	0.0979	0.1000	97.9	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Copper	0.1023	0.1000	102.3	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Lead	0.1028	0.1000	102.8	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Nickel	0.1019	0.1000	101.9	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Selenium	0.0988	0.1000	98.8	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Silver	0.0964	0.1000	96.4	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Thallium	0.1004	0.1000	100.4	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
	Zinc	0.1055	0.1000	105.5	90.0 - 110.0	MS	9/2/2010	20:14	M00902A, gen
ICV1			ICV1 MET4061-10						
	Antimony	0.0801	0.0800	100.1	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Lead	0.0780	0.0800	97.5	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
CCV1			CCV1-1 MET4282-10						
	Antimony	0.0964	0.1000	96.4	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Lead	0.1046	0.1000	104.6	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH

SDG No.: C0H210447

Initial Calibration Source: Inorganic

Instrument: ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0943	0.1000	94.3	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Lead	0.1041	0.1000	104.1	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen

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Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: ICPST

Units: ug/L

Chart Number: T00902B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: MET4165-10

Element	WL/ Mass	True Conc	ICV1-1 9/2/2010 2:56 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	250.0	252.64	**101.1**								
Chromium	267.716	1000.0	1019.09	**101.9**								
Copper	324.753	1000.0	1041.96	**104.2**								
Lead	220.353	250.0	255.51	**102.2**								
Nickel	231.604	1000.0	989.68	**99.0**								
Silver	328.068	500.0	509.04	**101.8**								
Zinc	213.856	1000.0	1034.00	**103.4**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4386-10

Element	WL/ Mass	True Conc	CCV1-1 9/2/2010 3:25 PM Found	% Rec	CCV1-2 9/2/2010 4:43 PM Found	% Rec	CCV1-3 9/2/2010 5:48 PM Found	% Rec	CCV1-4 9/2/2010 6:54 PM Found	% Rec	CCV1-5 9/2/2010 7:16 PM Found	% Rec
Cadmium	226.502	500.0	493.84	**98.8**	495.89	**99.2**	500.69	**100.1**	495.43	**99.1**	499.78	**100.0**
Chromium	267.716	2000.0	1985.37	**99.3**	1981.52	**99.1**	2000.03	**100.0**	1978.31	**98.9**	1994.45	**99.7**
Copper	324.753	2000.0	2053.11	**102.7**	2049.52	**102.5**	2067.05	**103.4**	2038.18	**101.9**	2055.76	**102.8**
Lead	220.353	500.0	498.52	**99.7**	497.70	**99.5**	502.03	**100.4**	496.72	**99.3**	499.29	**99.9**
Nickel	231.604	2000.0	1974.87	**98.7**	1976.43	**98.8**	1996.56	**99.8**	1973.33	**98.7**	1989.39	**99.5**
Silver	328.068	1000.0	1021.69	**102.2**	1022.04	**102.2**	1028.43	**102.8**	1011.69	**101.2**	1019.09	**101.9**
Zinc	213.856	2000.0	2050.88	**102.5**	2033.06	**101.7**	2044.79	**102.2**	2012.98	**100.6**	2026.92	**101.3**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4386-10

Element	WL/ Mass	True Conc	CCV1-6 9/2/2010 8:22 PM Found	% Rec	CCV1-7 9/2/2010 9:28 PM Found	% Rec	CCV1-8 9/2/2010 10:34 PM Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	500.0	492.14	**98.4**	496.91	**99.4**	496.42	**99.3**				
Chromium	267.716	2000.0	1969.71	**98.5**	1985.38	**99.3**	1994.70	**99.7**				
Copper	324.753	2000.0	2041.34	**102.1**	2048.73	**102.4**	2052.26	**102.6**				
Lead	220.353	500.0	492.66	**98.5**	500.51	**100.1**	501.72	**100.3**				
Nickel	231.604	2000.0	1958.03	**97.9**	1975.41	**98.8**	1975.34	**98.8**				
Silver	328.068	1000.0	1004.72	**100.5**	1003.13	**100.3**	993.19	**99.3**				
Zinc	213.856	2000.0	1998.05	**99.9**	2008.10	**100.4**	2018.26	**100.9**				

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4542-10

Element	WL/ Mass	True Conc	ICV6-1 9/1/2010 8:12 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.44	97.6								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4544-10

Element	WL/ Mass	True Conc	CCV6-1 9/1/2010 8:17 AM		CCV6-2 9/1/2010 8:38 AM		CCV6-3 9/1/2010 8:59 AM		CCV6-4 9/1/2010 9:20 AM		CCV6-5 9/1/2010 9:40 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.10	**102.0**	5.14	**102.8**	5.16	**103.2**	5.14	**102.8**	5.24	**104.8**

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4544-10

Element	WL/ Mass	True Conc	CCV6-6 9/1/2010 10:01 AM Found	% Rec	CCV6-7 9/1/2010 10:10 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.24	**104.8**	5.23	**104.6**						

Test America Pittsburgh

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CRDL STANDARD FOR AA & ICP

Client: TETRA TECH

SDG No.: C0H210447

ICPMS Standard Source: HIPUR

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
CRDL1			**CRI MET4062-10**						
	Antimony	0.00210	0.00200	105.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Arsenic	0.00111	0.00100	111.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Beryllium	0.00109	0.00100	109.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Cadmium	0.00106	0.00100	106.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Chromium	0.00203	0.00200	101.5	50 - 150	MS	9/2/2010	13:54	M00902A,
	Copper	0.00195	0.00200	97.5	50 - 150	MS	9/2/2010	13:54	M00902A,
	Lead	0.00104	0.00100	104.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Nickel	0.00104	0.00100	104.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Selenium	0.00511	0.00500	102.2	50 - 150	MS	9/2/2010	13:54	M00902A,
	Silver	0.00106	0.00100	106.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Thallium	0.00111	0.00100	111.0	50 - 150	MS	9/2/2010	13:54	M00902A,
	Zinc	0.00634	0.00500	126.8	50 - 150	MS	9/2/2010	13:54	M00902A,
CRDL1			**CRI MET4062-10**						
	Antimony	0.00196	0.00200	98.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Lead	0.00102	0.00100	102.0	50 - 150	MS	9/5/2010	11:37	M00905A,

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 50% - 150%

Standard Source: Inorganic Ventures **Standard ID:** MET4384-10

Element	WL/ Mass	True Conc	CRA/RLV 9/2/2010 3:09 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	5.0	5.06	**101.2**								
Chromium	267.716	5.0	5.05	**101.0**								
Copper	324.753	25.0	24.81	**99.2**								
Lead	220.353	3.0	1.74	**58.0**								
Nickel	231.604	40.0	40.83	**102.1**								
Silver	328.068	5.0	4.88	**97.6**								
Zinc	213.856	20.0	22.52	**112.6**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4543-10

Element	WL/ Mass	True Conc	CRA/RLV 9/1/2010 8:15 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.20	**98.0**								

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H210447

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
ICB1			ICB1							
	Antimony	0.00000	+/-0.00200	U	0.00003	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Arsenic	0.00006	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Beryllium	-0.00002	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Cadmium	0.00000	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Chromium	-0.00001	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Copper	-0.00031	+/-0.00200	U	0.00033	0.00200	MS	9/2/2010	13:49	M00902A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Selenium	0.00036	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	13:49	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Thallium	0.00000	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	13:49	M00902A, ge
	Zinc	-0.00018	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	13:49	M00902A, ge
CCB1			CCB1							
	Antimony	0.00026	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Arsenic	0.00000	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Chromium	0.00000	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Copper	-0.00040	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	14:17	M00902A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Nickel	-0.00001	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Selenium	0.00025	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	14:17	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	14:17	M00902A, ge
	Zinc	-0.00019	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	14:17	M00902A, ge

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H210447

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.00024	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Arsenic	0.00003	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Cadmium	-0.00008	+/-0.00100	J	0.00007	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Copper	-0.00042	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	15:22	M00902A, ge
	Lead	-0.00004	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Selenium	0.00022	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	15:22	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	15:22	M00902A, ge
	Zinc	-0.00016	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	15:22	M00902A, ge
CCB3			CCB3							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Arsenic	0.00005	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Beryllium	-0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Cadmium	0.00001	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Copper	-0.00048	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	16:19	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Nickel	0.00009	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Selenium	0.00035	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	16:19	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	16:19	M00902A, ge
	Zinc	-0.00015	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	16:19	M00902A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H210447

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB4			CCB4							
	Antimony	0.00027	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Arsenic	-0.00004	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Chromium	0.00004	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Copper	-0.00053	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	17:22	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Selenium	0.00027	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	17:22	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Thallium	0.00008	+/-0.00100	J	0.00002	0.00100	MS	9/2/2010	17:22	M00902A, ge
	Zinc	0.00001	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	17:22	M00902A, ge
CCB5			CCB5							
	Antimony	0.00029	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Arsenic	0.00000	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Beryllium	-0.00002	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Cadmium	-0.00002	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Chromium	0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Copper	-0.00047	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	18:21	M00902A, ge
	Lead	-0.00002	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Selenium	0.00016	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	18:21	M00902A, ge
	Silver	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Thallium	0.00002	+/-0.00100	J	0.00002	0.00100	MS	9/2/2010	18:21	M00902A, ge
	Zinc	-0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	18:21	M00902A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H210447

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB6			CCB6							
	Antimony	0.00027	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	19:24	M00902A, ge
	Arsenic	-0.00002	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Beryllium	-0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Chromium	0.00003	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	19:24	M00902A, ge
	Copper	-0.00053	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	19:24	M00902A, ge
	Lead	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Selenium	0.00019	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	19:24	M00902A, ge
	Silver	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Thallium	0.00003	+/-0.00100	J	0.00002	0.00100	MS	9/2/2010	19:24	M00902A, ge
	Zinc	-0.00007	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	19:24	M00902A, ge
CCB7			CCB7							
	Antimony	0.00086	+/-0.00200	J	0.00003	0.00200	MS	9/2/2010	20:21	M00902A, ge
	Arsenic	-0.00003	+/-0.00100	U	0.00018	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Beryllium	-0.00002	+/-0.00100	U	0.00008	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Cadmium	-0.00011	+/-0.00100	J	0.00007	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Chromium	0.00004	+/-0.00200	U	0.00006	0.00200	MS	9/2/2010	20:21	M00902A, ge
	Copper	-0.00052	+/-0.00200	J	0.00033	0.00200	MS	9/2/2010	20:21	M00902A, ge
	Lead	0.00093	+/-0.00100	J	0.00004	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Nickel	0.00008	+/-0.00100	U	0.00011	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Selenium	-0.00009	+/-0.00500	U	0.00050	0.00500	MS	9/2/2010	20:21	M00902A, ge
	Silver	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/2/2010	20:21	M00902A, ge
	Zinc	-0.00016	+/-0.00500	U	0.00065	0.00500	MS	9/2/2010	20:21	M00902A, ge
ICB1			ICB1							
	Antimony	0.00004	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	11:33	M00905A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/5/2010	11:33	M00905A, ge
CCB1			CCB1							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	12:00	M00905A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/5/2010	12:00	M00905A, ge

Test America Pittsburgh

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H210447

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.00026	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	13:03	M00905A, ge
	Lead	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	13:03	M00905A, ge

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB 9/2/2010 3:03 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	**0.2**	**B**								
Chromium	267.716	5	0.4	U								
Copper	324.753	25	2.2	U								
Lead	220.353	3	2.0	U								
Nickel	231.604	40	1.2	U								
Silver	328.068	5	0.6	U								
Zinc	213.856	20	**16.1**	**B**								

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 9/2/2010 3:31 PM Found	Q	CCB2 9/2/2010 4:48 PM Found	Q	CCB3 9/2/2010 5:54 PM Found	Q	CCB4 9/2/2010 7:00 PM Found	Q	CCB5 9/2/2010 7:21 PM Found	Q
Cadmium	226.502	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Chromium	267.716	5	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Copper	324.753	25	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Lead	220.353	3	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Nickel	231.604	40	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Silver	328.068	5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Zinc	213.856	20	**15.3**	**B**	7.4	U	7.4	U	7.4	U	7.4	U

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 9/2/2010 8:27 PM Found	Q	CCB7 9/2/2010 9:33 PM Found	Q	CCB8 9/2/2010 10:39 PM Found	Q	Found	Q	Found	Q
Cadmium	226.502	5	0.2	U	0.2	U	0.2	U				
Chromium	267.716	5	0.4	U	0.4	U	0.4	U				
Copper	324.753	25	2.2	U	2.2	U	2.2	U				
Lead	220.353	3	2.0	U	2.0	U	2.0	U				
Nickel	231.604	40	1.2	U	1.2	U	1.2	U				
Silver	328.068	5	0.6	U	0.6	U	0.6	U				
Zinc	213.856	20	7.4	U	7.4	U	7.4	U				

5.11.0

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 9/1/2010 8:14 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 9/1/2010 8:19 AM Found	Q	CCB2 9/1/2010 8:40 AM Found	Q	CCB3 9/1/2010 9:01 AM Found	Q	CCB4 9/1/2010 9:22 AM Found	Q	CCB5 9/1/2010 9:42 AM Found	Q
Mercury	253.7	0.2	**0.0**	**B**	0.0	U	**0.0**	**B**	**0.0**	**B**	0.0	U

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00901A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB6 9/1/2010 10:03 AM Found	Q	CCB7 9/1/2010 10:12 AM Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	**0.0**	**B**	0.0	U						

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0I010000-012 **Prep Batch #...:** 0244012						
Mercury	ND	0.016	mg/kg	SW846 7471A	09/01/10	L6DQ81AA
		Dilution Factor: 0.5				
		Analysis Time..: 08:21	Analyst ID.....: 031043	Instrument ID..: HGH		
MB Lot-Sample #: C0I010000-083 **Prep Batch #...:** 0244083						
Chromium	ND	0.0024	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AA
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Silver	ND	0.0012	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AC
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Cadmium	ND	0.0011	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AD
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Copper	ND	0.0098	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AE
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Nickel	ND	0.017	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AF
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Lead	ND	0.00072	umoles/gm	EPA SEM	09/01-09/02/10	L6DWT1AG
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
Zinc	**0.0068 B**	**0.038**	**umoles/gm**	**EPA SEM**	**09/01-09/02/10**	**L6DWT1AH**
		Dilution Factor: 1				
		Analysis Time..: 00:00	Analyst ID.....: 403938	Instrument ID..: TRA		
MB Lot-Sample #: C0I010000-169 **Prep Batch #...:** 0244169						
Antimony	**0.0073 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L6D771AK**
		Dilution Factor: 0.5				
		Analysis Time..: 18:26	Analyst ID.....: 400149	Instrument ID..: ICP		
Arsenic	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AC
		Dilution Factor: 0.5				
		Analysis Time..: 18:26	Analyst ID.....: 400149	Instrument ID..: ICP		

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Beryllium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AD
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AE
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.0082 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/01-09/02/10**	**L6D771AF**
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	09/01-09/02/10	L6D771AG
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AJ
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AH
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D771AL
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AA
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	09/01-09/02/10	L6D771AM
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	09/01-09/02/10	L6D771AN
		Dilution Factor: 0.5				
		Analysis Time..: 18:26		Analyst ID.....: 400149	Instrument ID..: ICP	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

Test America Pittsburgh

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH **SDG No.:** C0H210447

ICS Source: EPA **Instrument ID:** ICPMS

Sample ID Analyte	WL/Mass	Result mg/L	Qual	True Value mg/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4063-10									
Antimony	121Sb	0.00043				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Arsenic	75As	0.00023				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Beryllium	9Be	0.00010				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Cadmium	111Cd	0.00088				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Chromium	52Cr	0.00005				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Copper	65Cu	0.00300				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Lead	208Pb	0.00042				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Nickel	60Ni	0.00118				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Selenium	82Se	0.00028				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Silver	107Ag	0.00024				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Thallium	205Tl	0.00031				0.0 - 0.0	9/2/2010	13:58	M00902A, g
Zinc	66Zn	0.00569				0.0 - 0.0	9/2/2010	13:58	M00902A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02277		0.02000	113.8	80 - 120%	9/2/2010	14:02	M00902A, g
Arsenic	75As	0.02166		0.02000	108.3	80 - 120%	9/2/2010	14:02	M00902A, g
Beryllium	9Be	0.02131		0.02000	106.6	80 - 120%	9/2/2010	14:02	M00902A, g
Cadmium	111Cd	0.02220		0.02000	111.0	80 - 120%	9/2/2010	14:02	M00902A, g
Chromium	52Cr	0.01971		0.02000	98.6	80 - 120%	9/2/2010	14:02	M00902A, g
Copper	65Cu	0.02346		0.02000	117.3	80 - 120%	9/2/2010	14:02	M00902A, g
Lead	208Pb	0.02242		0.02000	112.1	80 - 120%	9/2/2010	14:02	M00902A, g
Nickel	60Ni	0.02149		0.02000	107.4	80 - 120%	9/2/2010	14:02	M00902A, g
Selenium	82Se	0.05186		0.05000	103.7	80 - 120%	9/2/2010	14:02	M00902A, g
Silver	107Ag	0.02152		0.02000	107.6	80 - 120%	9/2/2010	14:02	M00902A, g
Thallium	205Tl	0.02189		0.02000	109.4	80 - 120%	9/2/2010	14:02	M00902A, g
Zinc	66Zn	0.02860		0.02500	114.4	80 - 120%	9/2/2010	14:02	M00902A, g
ICSA MET4063-10									
Antimony	121Sb	0.00044				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Lead	208Pb	0.00035				0.0 - 0.0	9/5/2010	11:41	M00905A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02013		0.02000	100.6	80 - 120%	9/5/2010	11:46	M00905A, g
Lead	208Pb	0.02065		0.02000	103.2	80 - 120%	9/5/2010	11:46	M00905A, g

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** MET3683-10

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 9/2/2010 3:14 PM Found	Found	Found	Found	Found
Cadmium	226.502	5		2				
Chromium	267.716	5		0				
Copper	324.753	25		1				
Lead	220.353	3		3				
Nickel	231.604	40		3				
Silver	328.068	5		0				
Zinc	213.856	20		6				

U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00902B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET1004-10

Element	WL/ Mass	True Conc	ICSAB 9/2/2010 3:20 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Cadmium	226.502	1000	945.6	**94.6**								
Chromium	267.716	500	488.9	**97.8**								
Copper	324.753	500	549.1	**109.8**								
Lead	220.353	1000	976.2	**97.6**								
Nickel	231.604	1000	946.8	**94.7**								
Silver	328.068	1000	1083.0	**108.3**								
Zinc	213.856	1000	1038.6	**103.9**								

NC Percent recovery was not calculated
U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	97	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	97	(80 - 120)	0.41	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Silver	94	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	92	(80 - 120)	1.8	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Cadmium	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	96	(80 - 120)	1.7	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Copper	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	98	(80 - 120)	0.38	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Nickel	97	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	97	(80 - 120)	0.30	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Lead	98	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	99	(80 - 120)	0.42	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					
Zinc	112	(80 - 120)			EPA SEM	09/01-09/02/10	0244083
	106	(80 - 120)	6.0	(0-20)	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1			Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium	0.0962	0.0934	umoles/g	97		EPA SEM	09/01-09/02/10	0244083
	0.0962	0.0930	umoles/g	97	0.41	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Silver	0.0116	0.0109	umoles/g	94		EPA SEM	09/01-09/02/10	0244083
	0.0116	0.0107	umoles/g	92	1.8	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Cadmium	0.0111	0.0109	umoles/g	98		EPA SEM	09/01-09/02/10	0244083
	0.0111	0.0107	umoles/g	96	1.7	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Copper	0.0984	0.0964	umoles/g	98		EPA SEM	09/01-09/02/10	0244083
	0.0984	0.0960	umoles/g	98	0.38	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Nickel	0.213	0.208	umoles/g	97		EPA SEM	09/01-09/02/10	0244083
	0.213	0.207	umoles/g	97	0.30	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Lead	0.0603	0.0594	umoles/g	98		EPA SEM	09/01-09/02/10	0244083
	0.0603	0.0596	umoles/g	99	0.42	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						
Zinc	0.191	0.214	umoles/g	112		EPA SEM	09/01-09/02/10	0244083
	0.191	0.202	umoles/g	106	6.0	EPA SEM	09/01-09/02/10	0244083
		Dilution Factor: 1				Analysis Time..: 00:00	Analyst ID.....: 403938	
		Instrument ID..: TRA						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0I010000-012 **Prep Batch #...:** 0244012					
Mercury	99	(80 - 120)	SW846 7471A	09/01/10	L6DQ81AC
		Dilution Factor: 0.5	Analysis Time..: 08:23	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0I010000-169 **Prep Batch #...:** 0244169					
Silver	100	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AP
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	96	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AQ
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	93	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AR
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	98	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AT
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	100	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AU
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	112	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AV
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Nickel	110	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AW
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Lead	104	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771AX
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	97	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771A0
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	95	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771A1
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Thallium	101	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771A2
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	110	(80 - 120)	SW846 6020	09/01-09/02/10	L6D771A3
		Dilution Factor: 0.5	Analysis Time..: 18:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0I010000-012 **Prep Batch #...:** 0244012							
Mercury	0.208	0.206	mg/kg	99	SW846 7471A	09/01/10	L6DQ81AC
			Dilution Factor: 0.5		Analysis Time..: 08:23	Analyst ID.....: 031043	
			Instrument ID..: HGHYDRA				
LCS Lot-Sample#: C0I010000-169 **Prep Batch #...:** 0244169							
Silver	2.50	2.50	mg/kg	100	SW846 6020	09/01-09/02/10	L6D771AP
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Arsenic	2.00	1.93	mg/kg	96	SW846 6020	09/01-09/02/10	L6D771AQ
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Beryllium	2.50	2.33	mg/kg	93	SW846 6020	09/01-09/02/10	L6D771AR
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Cadmium	2.50	2.45	mg/kg	98	SW846 6020	09/01-09/02/10	L6D771AT
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Chromium	10.0	10.0	mg/kg	100	SW846 6020	09/01-09/02/10	L6D771AU
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Copper	12.5	14.1	mg/kg	112	SW846 6020	09/01-09/02/10	L6D771AV
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Nickel	25.0	27.4	mg/kg	110	SW846 6020	09/01-09/02/10	L6D771AW
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Lead	1.00	1.04	mg/kg	104	SW846 6020	09/01-09/02/10	L6D771AX
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Antimony	25.0	24.3	mg/kg	97	SW846 6020	09/01-09/02/10	L6D771A0
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	0.500	0.477	mg/kg	95	SW846 6020	09/01-09/02/10	L6D771A1
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Thallium	2.50	2.54	mg/kg	101	SW846 6020	09/01-09/02/10	L6D771A2
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				
Zinc	25.0	27.5	mg/kg	110	SW846 6020	09/01-09/02/10	L6D771A3
			Dilution Factor: 0.5		Analysis Time..: 18:30	Analyst ID.....: 400149	
			Instrument ID..: ICPMS2				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/21/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H210447-001 **Prep Batch #...:** 0244169									
								% Moisture.....: 25	
Antimony									
	1.1	33.4	34.5	mg/kg	100		SW846 6020	09/01-09/02/10	L50XR1CT
	1.1	33.4	20.9	mg/kg	59	49	SW846 6020	09/01-09/02/10	L50XR1CU
			Qualifiers: N, *						
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Arsenic									
	3.4	2.67	4.49 N	mg/kg	42		SW846 6020	09/01-09/02/10	L50XR1CC
	3.4	2.67	4.69 N	mg/kg	50	4.3	SW846 6020	09/01-09/02/10	L50XR1CD
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Beryllium									
	0.77	3.34	3.38	mg/kg	78		SW846 6020	09/01-09/02/10	L50XR1CE
	0.77	3.34	3.40	mg/kg	79	0.65	SW846 6020	09/01-09/02/10	L50XR1CF
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Cadmium									
	8.5	3.34	8.59 N	mg/kg	2.0		SW846 6020	09/01-09/02/10	L50XR1CG
	8.5	3.34	8.58 N	mg/kg	1.6	0.15	SW846 6020	09/01-09/02/10	L50XR1CH
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Chromium									
	55.3	13.4	75.7 NC	mg/kg			SW846 6020	09/01-09/02/10	L50XR1CJ
	55.3	13.4	53.6 NC	mg/kg			SW846 6020	09/01-09/02/10	L50XR1CK
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Copper									
	16.9	16.7	28.7 N	mg/kg	71		SW846 6020	09/01-09/02/10	L50XR1CL
	16.9	16.7	25.6 N	mg/kg	52	11	SW846 6020	09/01-09/02/10	L50XR1CM
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/21/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead									
	53.1	1.34	82.2 NC	mg/kg			SW846 6020	09/01-09/02/10	L50XR1CQ
	53.1	1.34	28.3 NC	mg/kg			SW846 6020	09/01-09/02/10	L50XR1CR
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Nickel									
	16.6	33.4	52.7	mg/kg	108		SW846 6020	09/01-09/02/10	L50XR1CN
	16.6	33.4	40.2	mg/kg	70	27	SW846 6020	09/01-09/02/10	L50XR1CP
			Qualifiers: N,*						
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Selenium									
	0.47	0.669	0.932 N	mg/kg	70		SW846 6020	09/01-09/02/10	L50XR1CV
	0.47	0.669	0.949 N	mg/kg	72	1.8	SW846 6020	09/01-09/02/10	L50XR1CW
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Silver									
	0.16	3.34	2.91	mg/kg	82		SW846 6020	09/01-09/02/10	L50XR1A9
	0.16	3.34	2.81	mg/kg	79	3.4	SW846 6020	09/01-09/02/10	L50XR1CA
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Thallium									
	0.059	3.34	3.07	mg/kg	90		SW846 6020	09/01-09/02/10	L50XR1CX
	0.059	3.34	3.13	mg/kg	92	2.0	SW846 6020	09/01-09/02/10	L50XR1C0
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						
Zinc									
	127	33.4	112 N	mg/kg	0.0		SW846 6020	09/01-09/02/10	L50XR1C1
	127	33.4	103 N	mg/kg	0.0	0.0	SW846 6020	09/01-09/02/10	L50XR1C2
			Dilution Factor: 0.5						
			Analysis Time..: 18:46		Instrument ID..: ICPMS2			Analyst ID.....: 400149	
			MS Run #.....: 0244098						

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H210447
Date Sampled...: 08/19/10 **Date Received..:** 08/21/10 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H210447-001 **Prep Batch #...:** 0244169							
						% Moisture.....: 25	
Antimony	100	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CT
	59 N,*	(75 - 125)	49	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CU
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Arsenic	42 N	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CC
	50 N	(75 - 125)	4.3	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CD
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Beryllium	78	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CE
	79	(75 - 125)	0.65	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CF
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Cadmium	2.0 N	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CG
	1.6 N	(75 - 125)	0.15	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CH
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Chromium	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CJ
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L50XR1CK
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Copper	71 N	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CL
	52 N	(75 - 125)	11	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CM
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Lead	NC	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CQ
	NC	(75 - 125)		(0-20)	SW846 6020	09/01-09/02/10	L50XR1CR
		Dilution Factor: 0.5					
		Analysis Time..: 18:46		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0244098					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID
Date Sampled...: 08/19/10 **Date Received..:** 08/21/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	108	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CN
	70 N,*	(75 - 125)	27	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CP
		Dilution Factor: 0.5					
		Analysis Time..: 18:46			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Selenium	70 N	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CV
	72 N	(75 - 125)	1.8	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CW
		Dilution Factor: 0.5					
		Analysis Time..: 18:46			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Silver	82	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1A9
	79	(75 - 125)	3.4	(0-20)	SW846 6020	09/01-09/02/10	L50XR1CA
		Dilution Factor: 0.5					
		Analysis Time..: 18:46			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Thallium	90	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1CX
	92	(75 - 125)	2.0	(0-20)	SW846 6020	09/01-09/02/10	L50XR1C0
		Dilution Factor: 0.5					
		Analysis Time..: 18:46			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244098					
Zinc	0.0 N	(75 - 125)			SW846 6020	09/01-09/02/10	L50XR1C1
	0.0 N	(75 - 125)	0.0	(0-20)	SW846 6020	09/01-09/02/10	L50XR1C2
		Dilution Factor: 0.5					
		Analysis Time..: 18:46			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0244098					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID
Date Sampled...: 08/20/10 **Date Received..:** 08/21/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H210447-005 **Prep Batch #...:** 0244012						**% Moisture.....:** 27	
Mercury	103	(75 - 125)			SW846 7471A	09/01/10	L50X01AV
	102	(75 - 125)	0.74	(0-20)	SW846 7471A	09/01/10	L50X01AW

Dilution Factor: 0.5
Analysis Time..: 08:33 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0244005

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: C0H210447 **Matrix.....:** SOLID
Date Sampled...: 08/20/10 **Date Received..:** 08/21/10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H210447-005 **Prep Batch #...:** 0244012 **% Moisture.....:** 27									
Mercury									
	0.035	0.115	0.154	mg/kg	103		SW846 7471A	09/01/10	L50X01AV
	0.035	0.115	0.153	mg/kg	102	0.74	SW846 7471A	09/01/10	L50X01AW

Dilution Factor: 0.5
Analysis Time..: 08:33 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0244005

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

Test America Pittsburgh

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0H210447

Sample ID: L50XR **Serial Dilution ID:** SD-85-SSL **Client ID:** SD-85-SSL

Batch Number: 0244083 **Prep Date:** 9/1/2010 **Matrix:** SOIL

Initial Wt/Vol: 2.00 **Final Vol:** 100.0

% Solids: 74.8 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result mg/L	C	Init Date/Time	SD Dil	Serial Result mg/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	1.10777		9/2/2010 18:37	5	1.09607		9/2/2010 18:41	1.1		10.00 %
Arsenic	1	3.36542		9/2/2010 18:37	5	3.06090		9/2/2010 18:41	9.0		10.00 %
Beryllium	1	0.77016		9/2/2010 18:37	5	0.77049		9/2/2010 18:41	0.0		10.00 %
Cadmium	1	8.52387		9/2/2010 18:37	5	8.38013		9/2/2010 18:41	1.7		10.00 %
Chromium	1	55.25471		9/2/2010 18:37	5	55.22129		9/2/2010 18:41	0.1		10.00 %
Copper	1	16.85386		9/2/2010 18:37	5	16.04493		9/2/2010 18:41	4.8		10.00 %
Lead	1	53.07528		9/2/2010 18:37	5	49.83956		9/2/2010 18:41	6.1		10.00 %
Nickel	1	16.61987		9/2/2010 18:37	5	16.03824		9/2/2010 18:41	3.5		10.00 %
Selenium	1	0.46671		9/2/2010 18:37	5	0.29783	J	9/2/2010 18:41	36.2	6L	10.00 %
Silver	1	0.15644		9/2/2010 18:37	5	0.14608	J	9/2/2010 18:41	6.6		10.00 %
Thallium	1	0.05883	J	9/2/2010 18:37	5	0.06117	J	9/2/2010 18:41	4.0		10.00 %
Zinc	1	127.49030		9/2/2010 18:37	5	120.03610		9/2/2010 18:41	5.8		10.00 %

TestAmerica Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: L50XRP

Original Sample ID: L50XR **Client ID:** SD-85-SS DUPP

Matrix: SEM **Units:** mg/L **Prep Date:** 9/1/2010 **Prep Batch:** 0244169

Weight: NA **Volume:** 250 **Percent Moisture:** NA

Element	WL/ Mass	OS Conc	Q	Serial Dilution Conc	Q	Percent Diff	OS DF	Ser Dil DF	Instr	OS Anal Date	OS Anal Time	Ser Dil Anal Date	Ser Dil Anal Time
Cadmium	226.502	0.29		0.32	E	11.7	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Chromium	267.716	0.94		1.1	E	11.8	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Copper	324.753	0.22		0.23		3.8	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Lead	220.353	0.96		1.1	E	11.3	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Nickel	231.604	0.17		0.19	B E	13.6	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Silver	328.068	0.0023	B	0.0036	B	58.0	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17
Zinc	213.856	2.4		2.7	E	13.7	1	5	ICPST	9/2/2010	21:11	9/2/2010	21:17

Comments:

5.11.0

E Serial dilution percent difference not within limits
U Result is less than the MDL
B Result is between MDL and RL

Form 9 Equivalent

Test America Pittsburgh
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METHOD DETECTION LIMITS

Client: TETRA TECH **SDG No.:** C0H210447

Analyte	Mass	MDL ug/L	CRQL ug/L
ICPMS	**MDL Date:**	6/6/2009	
Antimony	121	0.026	2
Arsenic	75	0.18	1
Beryllium	9	0.075	1
Cadmium	111	0.070	1
Chromium	52	0.06	2
Copper	65	0.33	2
Lead	208	0.038	1
Nickel	60	0.1	1
Selenium	82	0.50	5
Silver	107	0.04	1
Thallium	205	0.020	1
Zinc	66	0.65	5

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Cadmium	226.502	5.0	0.16	10/18/2006
Chromium	267.716	5.0	0.44	10/18/2006
Copper	324.753	25.0	2.2	10/18/2006
Lead	220.353	3.0	2.0	10/18/2006
Nickel	231.604	40.0	1.2	10/18/2006
Silver	328.068	5.0	0.58	10/18/2006
Zinc	213.856	20.0	7.4	10/18/2006

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Mercury	253.700	0.2	0.011	3/23/2009

Test America Pittsburgh

14 - IN

ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0H210447

ICP-MS Instrument ID: ICPMS Date: 9/2/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be 9	9.08218	0.75000	1.7550
Mg 24	23.955041	0.65000	0.6580
Mg 25	24.93583	0.63000	0.6710
Mg 26	25.93259	0.63000	1.0950
Co 59	58.903189	0.71000	0.2160
In 113	112.954404	0.73000	1.0640
In 115	114.95387	0.75000	0.1280
Ce 140	139.975441	0.73000	0.1610
Pb 206	206.024457	0.65000	0.8150
Pb 207	207.025876	0.65000	0.7500
Pb 208	208.026639	0.65000	0.4670

Comments:

L50X4 9/2/2010 7:41:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	60.508%	18.280	103.800	97.560	0.000	5238.000	119200.000	115300.000
2	19:43:18	60.407%	18.810	103.700	90.890	0.000	5283.000	119100.000	115500.000
3	19:44:01	57.759%	19.150	103.800	96.870	0.000	5268.000	119500.000	116200.000
x		59.558%	18.750	103.800	95.110	0.000	5263.000	119300.000	115700.000
σ		1.558%	0.441	0.059	3.667	0.000	22.750	215.000	500.400
%RSD		2.617	2.355	0.057	3.855	0.000	0.432	0.180	0.433

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	98630.000	2262.000	0.000	7247.000	336800.000	342100.000	53.727%	2631.000
2	19:43:18	98410.000	2228.000	0.000	7239.000	337600.000	342400.000	52.999%	2640.000
3	19:44:01	98840.000	2262.000	0.000	7354.000	340600.000	348500.000	52.912%	2630.000
x		98630.000	2251.000	0.000	7280.000	338300.000	344400.000	53.213%	2633.000
σ		216.600	19.320	0.000	64.060	1970.000	3617.000	0.448%	5.340
%RSD		0.220	0.858	0.000	0.880	0.582	1.050	0.841	0.203

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	399.800	1170.000	9664.000	255900.000	258900.000	150.100	204.900	557.500
2	19:43:18	406.700	1180.000	9785.000	258300.000	261700.000	151.800	207.800	565.200
3	19:44:01	403.000	1183.000	9865.000	259400.000	263000.000	151.500	205.300	564.700
x		403.100	1178.000	9771.000	257900.000	261200.000	151.100	206.000	562.500
σ		3.487	6.498	101.400	1792.000	2063.000	0.934	1.600	4.322
%RSD		0.865	0.552	1.038	0.695	0.790	0.618	0.777	0.768

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	566.200	2472.000	2534.000	168.300	8.412	12.350	0.000	648.200
2	19:43:18	572.900	2523.000	2572.000	171.100	8.868	12.970	0.000	660.800
3	19:44:01	569.900	2530.000	2583.000	169.500	9.099	12.790	0.000	665.600
x		569.700	2509.000	2563.000	169.600	8.793	12.710	0.000	658.200
σ		3.322	31.610	25.930	1.413	0.349	0.320	0.000	8.991
%RSD		0.583	1.260	1.012	0.833	3.971	2.518	0.000	1.366

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	0.000	8.202	7.945	58.083%	34.180	33.940	452.200	446.200
2	19:43:18	0.000	8.260	8.311	58.712%	34.190	33.760	455.100	445.400
3	19:44:01	0.000	8.520	8.200	59.578%	34.250	33.850	455.300	447.300
x		0.000	8.327	8.152	58.791%	34.210	33.850	454.200	446.300
σ		0.000	0.169	0.188	0.751%	0.035	0.091	1.738	0.966
%RSD		0.000	2.033	2.306	1.277	0.102	0.269	0.383	0.217

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	63.562%	633.300	37180.000	36670.000	1297.000	1319.000	80.476%	80.686%
2	19:43:18	64.826%	635.200	37390.000	36820.000	1295.000	1313.000	82.826%	83.628%
3	19:44:01	66.075%	633.600	37240.000	36660.000	1292.000	1317.000	84.330%	85.172%
x		64.821%	634.000	37270.000	36720.000	1295.000	1316.000	82.544%	83.162%
σ		1.256%	1.010	105.200	90.120	2.318	2.735	1.942%	2.279%
%RSD		1.938	0.159	0.282	0.245	0.179	0.208	2.353	2.741

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:42:35	1.413	1.770	395400.000	379400.000	385300.000	89.898%
2	19:43:18	1.418	1.800	393900.000	378200.000	384500.000	93.088%
3	19:44:01	1.394	1.803	395100.000	378600.000	385000.000	94.447%
x		1.408	1.791	394800.000	378700.000	384900.000	92.478%
σ		0.013	0.018	781.300	602.700	403.600	2.335%
%RSD		0.888	1.017	0.198	0.159	0.105	2.525

L50X5 9/5/2010 12:17:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	71.642%	27.380	21.390	22.360	0.000	2408.000	13640.000	13540.000
2	12:18:58	69.852%	27.910	20.940	20.430	0.000	2411.000	13670.000	13410.000
3	12:19:42	67.887%	26.900	22.160	22.100	0.000	2436.000	13750.000	13480.000
x		69.794%	27.400	21.500	21.630	0.000	2418.000	13690.000	13480.000
σ		1.878%	0.504	0.618	1.046	0.000	15.110	57.270	67.270
%RSD		2.691	1.839	2.877	4.838	0.000	0.625	0.418	0.499
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	103600.000	1988.000	0.000	5870.000	23880.000	25030.000	72.913%	982.600
2	12:18:58	101900.000	1957.000	0.000	5986.000	24240.000	25180.000	69.821%	1006.000
3	12:19:42	102600.000	1968.000	0.000	5925.000	23910.000	25060.000	68.207%	1016.000
x		102700.000	1971.000	0.000	5927.000	24010.000	25090.000	70.313%	1001.000
σ		877.400	16.090	0.000	58.310	199.800	78.940	2.391%	16.990
%RSD		0.854	0.816	0.000	0.984	0.832	0.315	3.401	1.696
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	-75.620	15860.000	3077.000	182100.000	168900.000	195.900	253.900	626.100
2	12:18:58	-47.160	16150.000	3115.000	184200.000	173300.000	199.000	254.500	636.400
3	12:19:42	-50.230	16260.000	3136.000	186600.000	174000.000	201.300	260.700	644.000
x		-57.670	16090.000	3109.000	184300.000	172100.000	198.700	256.400	635.500
σ		15.620	204.500	29.630	2251.000	2737.000	2.693	3.750	8.980
%RSD		27.090	1.271	0.953	1.222	1.591	1.355	1.463	1.413
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	606.400	1372.000	1327.000	32.990	-1.755	3.818	0.000	68.670
2	12:18:58	615.200	1392.000	1346.000	32.470	-1.352	3.607	0.000	68.880
3	12:19:42	626.800	1423.000	1367.000	33.250	-1.191	3.740	0.000	68.580
x		616.100	1396.000	1347.000	32.900	-1.433	3.721	0.000	68.710
σ		10.220	25.680	20.010	0.399	0.290	0.107	0.000	0.153
%RSD		1.659	1.840	1.486	1.213	20.260	2.864	0.000	0.223
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	195.959%	7.504	9.013	70.677%	2.277	2.168	1312.000	1307.000
2	12:18:58	191.497%	7.369	8.986	69.145%	2.126	2.217	1311.000	1308.000
3	12:19:42	189.270%	7.450	9.020	68.727%	2.114	2.183	1309.000	1304.000
x		192.242%	7.441	9.007	69.517%	2.172	2.189	1311.000	1306.000
σ		3.406%	0.068	0.018	1.027%	0.091	0.025	1.270	1.832
%RSD		1.772	0.911	0.197	1.477	4.189	1.137	0.097	0.140
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:15	74.069%	64.050	28.170	28.030	953.800	952.400	93.734%	94.916%
2	12:18:58	72.722%	64.040	26.980	27.490	961.500	956.100	92.490%	93.571%
3	12:19:42	72.371%	63.120	26.500	26.300	948.500	943.800	93.136%	93.815%
x		73.054%	63.740	27.220	27.270	954.600	950.800	93.120%	94.101%
σ		0.896%	0.532	0.862	0.883	6.551	6.345	0.622%	0.717%
%RSD		1.227	0.834	3.165	3.236	0.686	0.667	0.668	0.762
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:15	2.043	2.075	1190.000	1176.000	1204.000	82.408%		
2	12:18:58	2.098	2.138	1249.000	1231.000	1265.000	77.858%		
3	12:19:42	2.090	2.231	1254.000	1241.000	1271.000	77.453%		
x		2.077	2.148	1231.000	1216.000	1247.000	79.240%		
σ		0.029	0.078	35.600	35.190	36.970	2.751%		
%RSD		1.412	3.647	2.891	2.894	2.964	3.472		

L50X6 9/5/2010 12:21:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	79.083%	27.440	20.900	20.930	0.000	1470.000	10990.000	10630.000
2	12:23:14	81.415%	28.820	22.150	21.510	0.000	1459.000	10890.000	10580.000
3	12:23:57	85.241%	27.920	22.920	19.720	0.000	1463.000	10890.000	10560.000
x		81.913%	28.060	21.990	20.720	0.000	1464.000	10920.000	10590.000
σ		3.109%	0.699	1.018	0.913	0.000	5.254	55.720	33.710
%RSD		3.796	2.491	4.631	4.409	0.000	0.359	0.510	0.318
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	96600.000	2745.000	0.000	6075.000	12950.000	13150.000	79.098%	987.500
2	12:23:14	97650.000	2748.000	0.000	6157.000	13020.000	13410.000	79.939%	993.200
3	12:23:57	97700.000	2740.000	0.000	6144.000	12930.000	13260.000	81.740%	996.100
x		97320.000	2744.000	0.000	6126.000	12970.000	13270.000	80.259%	992.200
σ		618.400	3.961	0.000	44.230	45.320	131.100	1.350%	4.368
%RSD		0.635	0.144	0.000	0.722	0.349	0.988	1.682	0.440
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	344.100	383.600	1477.000	145900.000	137000.000	312.600	279.000	224.100
2	12:23:14	349.400	384.900	1496.000	146700.000	137500.000	318.300	285.600	224.500
3	12:23:57	349.900	388.500	1511.000	148200.000	138400.000	317.900	284.700	224.900
x		347.800	385.700	1495.000	147000.000	137600.000	316.300	283.100	224.500
σ		3.234	2.517	16.920	1140.000	713.600	3.180	3.539	0.423
%RSD		0.930	0.653	1.132	0.776	0.519	1.006	1.250	0.189
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	216.100	855.100	821.100	26.730	-3.491	3.087	0.000	51.220
2	12:23:14	220.700	862.500	827.000	26.720	-4.031	2.891	0.000	50.750
3	12:23:57	219.500	855.900	822.100	26.670	-3.288	2.653	0.000	50.990
x		218.800	857.800	823.400	26.700	-3.603	2.877	0.000	50.990
σ		2.357	4.040	3.181	0.033	0.384	0.217	0.000	0.236
%RSD		1.077	0.471	0.386	0.124	10.650	7.547	0.000	0.463
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	208.872%	4.922	6.122	77.593%	0.972	0.961	21.560	20.540
2	12:23:14	215.239%	5.006	6.102	79.631%	0.914	0.950	21.080	20.990
3	12:23:57	218.844%	5.242	6.066	80.664%	0.937	0.971	21.640	20.770
x		214.318%	5.057	6.097	79.296%	0.941	0.961	21.430	20.770
σ		5.050%	0.166	0.029	1.563%	0.029	0.011	0.300	0.225
%RSD		2.356	3.282	0.471	1.971	3.092	1.112	1.398	1.082
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:31	82.188%	29.330	5.508	5.237	782.300	778.100	103.428%	104.085%
2	12:23:14	83.179%	29.100	5.167	5.417	791.500	785.800	104.817%	106.556%
3	12:23:57	84.732%	28.750	5.300	5.285	787.300	782.100	106.801%	107.905%
x		83.366%	29.060	5.325	5.313	787.000	782.000	105.016%	106.182%
σ		1.282%	0.294	0.172	0.093	4.612	3.831	1.695%	1.937%
%RSD		1.538	1.013	3.225	1.756	0.586	0.490	1.614	1.825
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:22:31	2.102	2.097	441.400	434.300	439.700	84.899%		
2	12:23:14	2.074	2.164	446.300	438.400	444.800	85.780%		
3	12:23:57	2.211	2.189	447.200	440.200	445.900	86.778%		
x		2.129	2.150	444.900	437.600	443.500	85.819%		
σ		0.072	0.047	3.116	3.037	3.292	0.940%		
%RSD		3.397	2.201	0.700	0.694	0.742	1.096		

L50XR 9/2/2010 6:37:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	68.904%	11.710	49.810	45.620	0.000	4568.000	83870.000	80800.000
2	18:39:04	68.464%	11.030	47.320	46.020	0.000	4598.000	84500.000	81540.000
3	18:39:47	69.780%	11.810	47.760	43.910	0.000	4614.000	83830.000	80400.000
x		69.049%	11.520	48.300	45.190	0.000	4593.000	84070.000	80920.000
σ		0.670%	0.426	1.325	1.118	0.000	23.500	374.100	577.900
%RSD		0.970	3.696	2.743	2.474	0.000	0.512	0.445	0.714
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	70840.000	6008.000	0.000	4596.000	173900.000	172900.000	62.300%	1762.000
2	18:39:04	71890.000	6087.000	0.000	4686.000	176000.000	175800.000	62.314%	1787.000
3	18:39:47	70990.000	6041.000	0.000	4663.000	176700.000	176800.000	61.652%	1772.000
x		71240.000	6045.000	0.000	4648.000	175600.000	175200.000	62.089%	1774.000
σ		569.800	39.460	0.000	47.120	1442.000	2045.000	0.378%	12.910
%RSD		0.800	0.653	0.000	1.014	0.821	1.168	0.609	0.728
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	227.700	819.500	4102.000	218000.000	217900.000	142.500	242.800	243.700
2	18:39:04	229.200	822.900	4211.000	223100.000	224900.000	145.700	251.000	253.700
3	18:39:47	233.200	837.100	4270.000	225500.000	226000.000	146.400	251.900	254.700
x		230.000	826.500	4195.000	222200.000	223000.000	144.900	248.600	250.700
σ		2.878	9.301	85.250	3831.000	4431.000	2.090	5.010	6.103
%RSD		1.251	1.125	2.032	1.725	1.987	1.442	2.016	2.434
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	244.700	1847.000	1844.000	49.110	4.118	6.603	0.000	340.400
2	18:39:04	255.300	1929.000	1939.000	50.830	4.223	6.933	0.000	361.100
3	18:39:47	256.300	1946.000	1954.000	51.100	4.412	7.407	0.000	360.000
x		252.100	1907.000	1912.000	50.340	4.251	6.981	0.000	353.800
σ		6.462	53.070	59.570	1.080	0.149	0.404	0.000	11.630
%RSD		2.563	2.782	3.115	2.145	3.505	5.789	0.000	3.286
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	0.000	15.900	16.050	66.531%	2.194	2.245	124.900	126.100
2	18:39:04	0.000	15.170	14.980	62.967%	2.449	2.357	128.800	126.700
3	18:39:47	0.000	13.560	13.310	63.868%	2.377	2.389	128.600	127.100
x		0.000	14.880	14.780	64.455%	2.340	2.330	127.500	126.600
σ		0.000	1.198	1.385	1.853%	0.132	0.076	2.171	0.498
%RSD		0.000	8.051	9.374	2.876	5.622	3.250	1.704	0.393
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:21	67.673%	32.890	16.670	16.560	633.000	625.100	81.388%	82.358%
2	18:39:04	69.478%	28.460	16.670	16.720	628.800	624.700	83.029%	84.714%
3	18:39:47	70.480%	27.120	16.380	16.660	630.600	621.500	84.201%	85.749%
x		69.211%	29.490	16.570	16.650	630.800	623.800	82.873%	84.274%
σ		1.423%	3.018	0.165	0.085	2.120	1.992	1.413%	1.738%
%RSD		2.056	10.240	0.994	0.512	0.336	0.319	1.705	2.062
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:38:21	0.885	0.898	769.700	770.800	794.800	85.732%		
2	18:39:04	0.871	0.868	770.500	768.500	794.700	88.192%		
3	18:39:47	0.882	0.874	766.700	769.100	792.100	89.781%		
x		0.879	0.880	768.900	769.400	793.900	87.902%		
σ		0.008	0.016	2.002	1.194	1.516	2.040%		
%RSD		0.867	1.821	0.260	0.155	0.191	2.321		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	78.056%	13.720	39.970	37.870	0.000	6104.000	10340.000	9892.000
2	18:59:06	80.011%	14.040	37.510	36.320	0.000	6175.000	10330.000	9913.000
3	18:59:49	80.979%	14.210	38.330	34.940	0.000	6146.000	10230.000	9904.000
x		79.682%	13.990	38.600	36.380	0.000	6142.000	10300.000	9903.000
σ		1.489%	0.248	1.251	1.464	0.000	35.820	58.370	10.380
%RSD		1.869	1.775	3.240	4.023	0.000	0.583	0.567	0.105

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	95110.000	2407.000	0.000	7657.000	9389.000	8721.000	70.251%	1015.000
2	18:59:06	95130.000	2409.000	0.000	7819.000	9834.000	8947.000	69.613%	1032.000
3	18:59:49	95380.000	2424.000	0.000	7800.000	9722.000	8982.000	70.610%	1007.000
x		95210.000	2413.000	0.000	7759.000	9648.000	8883.000	70.158%	1018.000
σ		151.200	8.935	0.000	88.370	231.200	141.300	0.505%	12.740
%RSD		0.159	0.370	0.000	1.139	2.396	1.591	0.720	1.251

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	317.200	181.700	2381.000	217200.000	216100.000	170.900	175.300	125.900
2	18:59:06	328.600	186.900	2417.000	222000.000	220600.000	172.900	177.200	125.600
3	18:59:49	322.200	184.900	2408.000	221000.000	220500.000	170.500	177.300	126.600
x		322.700	184.500	2402.000	220000.000	219100.000	171.400	176.600	126.000
σ		5.721	2.657	18.890	2524.000	2572.000	1.271	1.109	0.531
%RSD		1.773	1.440	0.786	1.147	1.174	0.741	0.628	0.421

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	127.200	458.000	461.200	33.740	2.806	7.432	0.000	122.700
2	18:59:06	126.300	463.700	466.500	33.350	2.725	7.298	0.000	124.100
3	18:59:49	127.500	462.200	467.300	32.850	3.381	6.417	0.000	123.200
x		127.000	461.300	465.000	33.310	2.971	7.049	0.000	123.300
σ		0.627	2.969	3.327	0.443	0.357	0.551	0.000	0.695
%RSD		0.494	0.644	0.715	1.331	12.030	7.819	0.000	0.563

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	0.000	17.670	17.570	73.548%	0.525	0.507	1.886	1.378
2	18:59:06	0.000	15.460	15.550	74.616%	0.587	0.483	1.821	1.403
3	18:59:49	0.000	14.650	14.070	74.962%	0.580	0.525	1.711	1.333
x		0.000	15.930	15.730	74.375%	0.564	0.505	1.806	1.371
σ		0.000	1.560	1.756	0.737%	0.034	0.021	0.089	0.035
%RSD		0.000	9.795	11.160	0.990	5.980	4.136	4.914	2.557

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	74.461%	17.970	1.502	1.436	277.800	275.400	90.885%	91.692%
2	18:59:06	75.309%	15.550	1.500	1.335	278.600	275.000	93.236%	93.713%
3	18:59:49	75.853%	15.010	1.390	1.375	276.700	274.400	93.472%	94.416%
x		75.208%	16.180	1.464	1.382	277.700	274.900	92.531%	93.274%
σ		0.702%	1.578	0.064	0.051	0.936	0.526	1.430%	1.415%
%RSD		0.933	9.754	4.395	3.685	0.337	0.192	1.546	1.517

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	1.642	1.742	96.460	93.590	95.940	92.335%
2	18:59:06	1.711	1.729	96.410	93.370	95.700	94.852%
3	18:59:49	1.651	1.685	96.450	93.500	95.540	95.734%
x		1.668	1.719	96.440	93.480	95.730	94.307%
σ		0.038	0.030	0.027	0.111	0.200	1.764%
%RSD		2.256	1.727	0.028	0.119	0.209	1.870

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	78.014%	14.270	44.260	42.090	0.000	4876.000	10550.000	10060.000
2	19:03:24	79.107%	13.650	43.590	41.740	0.000	4857.000	10370.000	9750.000
3	19:04:07	77.864%	13.250	45.990	41.630	0.000	4906.000	10260.000	9942.000
x		78.328%	13.720	44.610	41.820	0.000	4879.000	10390.000	9918.000
σ		0.678%	0.515	1.241	0.238	0.000	24.720	144.300	158.200
%RSD		0.866	3.756	2.782	0.569	0.000	0.507	1.388	1.595

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	45120.000	2429.000	0.000	7746.000	9581.000	8950.000	69.500%	744.900
2	19:03:24	45310.000	2464.000	0.000	7920.000	9745.000	8916.000	68.100%	756.000
3	19:04:07	45260.000	2443.000	0.000	7901.000	9620.000	9031.000	67.740%	765.500
x		45230.000	2445.000	0.000	7855.000	9649.000	8966.000	68.447%	755.500
σ		95.280	17.720	0.000	95.320	85.870	58.920	0.930%	10.270
%RSD		0.211	0.725	0.000	1.213	0.890	0.657	1.358	1.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	180.800	137.100	1108.000	186600.000	185500.000	87.040	119.700	101.900
2	19:03:24	179.500	138.700	1138.000	190600.000	190800.000	89.100	121.800	104.500
3	19:04:07	181.200	139.200	1151.000	193100.000	192600.000	89.180	122.100	103.900
x		180.500	138.300	1133.000	190100.000	189600.000	88.440	121.200	103.400
σ		0.925	1.125	21.810	3324.000	3700.000	1.213	1.319	1.357
%RSD		0.512	0.813	1.926	1.749	1.951	1.371	1.089	1.312

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	102.000	376.400	380.100	21.250	2.163	5.894	0.000	171.100
2	19:03:24	106.200	385.400	386.800	20.840	2.096	5.948	0.000	173.600
3	19:04:07	106.200	386.200	389.300	21.670	2.243	5.897	0.000	174.900
x		104.800	382.700	385.400	21.250	2.168	5.913	0.000	173.200
σ		2.425	5.426	4.792	0.412	0.074	0.030	0.000	1.967
%RSD		2.313	1.418	1.243	1.940	3.409	0.512	0.000	1.136

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	0.000	13.710	14.180	75.677%	0.408	0.290	2.181	1.883
2	19:03:24	0.000	13.850	13.750	75.481%	0.417	0.308	2.309	1.887
3	19:04:07	0.000	13.630	13.650	75.678%	0.400	0.303	1.807	1.637
x		0.000	13.730	13.860	75.612%	0.409	0.300	2.099	1.802
σ		0.000	0.109	0.282	0.114%	0.009	0.009	0.261	0.143
%RSD		0.000	0.794	2.037	0.150	2.117	2.961	12.420	7.955

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	74.836%	13.100	0.563	0.563	140.200	140.200	90.082%	91.480%
2	19:03:24	76.096%	12.990	0.552	0.554	143.300	140.300	91.324%	93.709%
3	19:04:07	76.813%	12.720	0.522	0.483	142.000	140.000	92.985%	94.445%
x		75.915%	12.940	0.545	0.533	141.800	140.200	91.464%	93.212%
σ		1.001%	0.194	0.021	0.044	1.553	0.124	1.456%	1.544%
%RSD		1.318	1.501	3.901	8.223	1.095	0.088	1.592	1.656

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:40	1.031	1.002	53.700	52.190	53.420	93.302%
2	19:03:24	0.971	0.998	53.550	52.280	53.150	95.657%
3	19:04:07	0.980	1.005	53.470	52.090	53.260	96.778%
x		0.994	1.002	53.570	52.180	53.280	95.246%
σ		0.033	0.004	0.116	0.093	0.138	1.774%
%RSD		3.279	0.372	0.217	0.178	0.260	1.863

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	77.634%	11.420	39.340	35.400	0.000	3517.000	13630.000	13810.000
2	19:07:39	75.402%	11.250	40.110	35.870	0.000	3570.000	13620.000	14020.000
3	19:08:22	74.162%	11.710	38.160	37.650	0.000	3609.000	14630.000	14080.000
x		75.733%	11.460	39.200	36.310	0.000	3565.000	13960.000	13970.000
σ		1.759%	0.231	0.982	1.189	0.000	46.220	579.300	138.600
%RSD		2.323	2.011	2.505	3.274	0.000	1.296	4.150	0.992

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	34480.000	2200.000	0.000	6630.000	19290.000	17670.000	67.988%	786.700
2	19:07:39	34710.000	2243.000	0.000	6756.000	19130.000	17690.000	66.605%	788.900
3	19:08:22	35290.000	2271.000	0.000	6775.000	19490.000	17690.000	67.241%	791.600
x		34830.000	2238.000	0.000	6720.000	19300.000	17680.000	67.278%	789.000
σ		415.400	36.100	0.000	78.830	184.000	12.420	0.692%	2.415
%RSD		1.193	1.613	0.000	1.173	0.953	0.070	1.029	0.306

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	168.700	118.700	1172.000	175500.000	175300.000	88.770	111.800	84.740
2	19:07:39	170.100	119.400	1206.000	179500.000	179300.000	90.350	113.800	86.020
3	19:08:22	170.900	120.000	1200.000	179200.000	178500.000	90.640	113.200	85.020
x		169.900	119.400	1193.000	178100.000	177700.000	89.920	112.900	85.260
σ		1.100	0.678	18.110	2201.000	2141.000	1.009	1.002	0.673
%RSD		0.648	0.568	1.519	1.236	1.205	1.122	0.887	0.789

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	84.890	351.700	354.200	24.320	1.946	5.441	0.000	151.500
2	19:07:39	85.590	354.900	358.400	24.040	1.621	5.511	0.000	154.600
3	19:08:22	87.530	357.600	356.300	22.920	0.922	5.326	0.000	154.200
x		86.000	354.700	356.300	23.760	1.496	5.426	0.000	153.400
σ		1.373	2.947	2.122	0.741	0.523	0.094	0.000	1.649
%RSD		1.596	0.831	0.596	3.119	34.960	1.724	0.000	1.075

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	0.000	14.320	14.110	74.911%	0.350	0.256	2.647	2.291
2	19:07:39	0.000	14.520	14.220	75.361%	0.350	0.274	2.449	2.100
3	19:08:22	0.000	14.340	14.400	75.481%	0.346	0.263	2.616	2.333
x		0.000	14.390	14.240	75.251%	0.349	0.264	2.571	2.241
σ		0.000	0.110	0.150	0.301%	0.002	0.009	0.107	0.124
%RSD		0.000	0.764	1.055	0.399	0.701	3.383	4.151	5.543

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	75.113%	11.850	0.504	0.480	145.200	147.200	89.144%	90.533%
2	19:07:39	76.065%	11.890	0.523	0.447	148.900	147.700	90.152%	92.164%
3	19:08:22	76.097%	11.730	0.493	0.535	148.700	148.000	90.779%	92.978%
x		75.758%	11.830	0.507	0.488	147.600	147.600	90.025%	91.892%
σ		0.559%	0.083	0.016	0.044	2.052	0.415	0.825%	1.245%
%RSD		0.738	0.705	3.080	9.122	1.391	0.281	0.916	1.355

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:06:56	0.810	0.777	46.620	45.060	46.230	93.834%
2	19:07:39	0.798	0.789	46.350	44.970	46.140	95.674%
3	19:08:22	0.765	0.770	46.470	45.530	46.420	96.489%
x		0.791	0.779	46.480	45.190	46.260	95.332%
σ		0.023	0.010	0.137	0.303	0.144	1.360%
%RSD		2.954	1.261	0.295	0.672	0.312	1.427

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	69.781%	8.822	35.970	33.130	0.000	2253.000	96770.000	92840.000
2	19:11:54	69.642%	8.494	37.160	33.550	0.000	2255.000	97100.000	93090.000
3	19:12:37	68.682%	8.547	35.080	33.500	0.000	2279.000	96250.000	92700.000
x		69.369%	8.621	36.070	33.390	0.000	2262.000	96710.000	92880.000
σ		0.598%	0.176	1.040	0.230	0.000	14.560	431.800	196.100
%RSD		0.863	2.041	2.885	0.688	0.000	0.644	0.447	0.211
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	62750.000	8996.000	0.000	3330.000	239100.000	241900.000	62.598%	2012.000
2	19:11:54	62450.000	8919.000	0.000	3378.000	244000.000	244400.000	61.294%	2027.000
3	19:12:37	61930.000	9005.000	0.000	3403.000	240800.000	243800.000	61.073%	2027.000
x		62380.000	8973.000	0.000	3370.000	241300.000	243300.000	61.655%	2022.000
σ		416.300	47.420	0.000	37.130	2460.000	1304.000	0.824%	8.441
%RSD		0.667	0.528	0.000	1.102	1.019	0.536	1.336	0.417
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	173.000	172.800	3924.000	86560.000	88160.000	123.500	167.900	327.800
2	19:11:54	177.800	179.400	4023.000	88450.000	89950.000	125.300	168.300	331.900
3	19:12:37	173.500	175.800	4031.000	88670.000	89450.000	124.800	169.100	332.900
x		174.800	176.000	3993.000	87890.000	89180.000	124.500	168.400	330.800
σ		2.603	3.273	59.600	1164.000	924.300	0.932	0.606	2.717
%RSD		1.489	1.860	1.493	1.324	1.036	0.749	0.360	0.821
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	333.800	1171.000	1174.000	26.520	3.102	5.483	0.000	402.100
2	19:11:54	338.500	1192.000	1196.000	25.730	3.144	5.714	0.000	406.600
3	19:12:37	336.600	1189.000	1193.000	25.600	2.931	5.917	0.000	407.600
x		336.300	1184.000	1188.000	25.950	3.059	5.704	0.000	405.500
σ		2.360	11.170	12.280	0.494	0.113	0.217	0.000	2.948
%RSD		0.702	0.943	1.034	1.905	3.683	3.806	0.000	0.727
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	0.000	4.829	4.794	64.118%	0.956	0.925	5.747	5.285
2	19:11:54	0.000	4.871	4.833	64.173%	0.980	0.977	5.759	5.549
3	19:12:37	0.000	4.705	4.662	64.038%	1.059	0.917	5.491	5.716
x		0.000	4.802	4.763	64.110%	0.998	0.940	5.666	5.517
σ		0.000	0.087	0.090	0.068%	0.054	0.033	0.152	0.217
%RSD		0.000	1.805	1.880	0.106	5.399	3.498	2.679	3.934
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:11	69.572%	20.580	2.909	2.818	672.200	668.000	80.412%	82.808%
2	19:11:54	69.842%	20.500	2.850	2.828	667.900	667.900	82.126%	84.073%
3	19:12:37	70.127%	20.420	2.873	2.876	670.400	663.800	82.407%	84.046%
x		69.847%	20.500	2.877	2.841	670.200	666.500	81.648%	83.642%
σ		0.277%	0.080	0.030	0.031	2.141	2.397	1.080%	0.723%
%RSD		0.397	0.391	1.033	1.087	0.320	0.360	1.322	0.864
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:11:11	0.704	0.716	956.000	941.300	979.600	87.350%		
2	19:11:54	0.666	0.717	960.400	942.300	982.800	88.569%		
3	19:12:37	0.691	0.690	958.600	946.400	982.700	89.233%		
x		0.687	0.708	958.300	943.300	981.700	88.384%		
σ		0.019	0.015	2.193	2.699	1.816	0.955%		
%RSD		2.808	2.187	0.229	0.286	0.185	1.080		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	71.007%	17.720	56.460	52.860	0.000	3411.000	49530.000	47260.000
2	19:30:29	73.443%	17.810	56.670	52.020	0.000	3429.000	48440.000	46530.000
3	19:31:12	71.020%	17.360	53.190	52.160	0.000	3506.000	50150.000	47800.000
x		71.823%	17.630	55.440	52.340	0.000	3449.000	49370.000	47190.000
σ		1.403%	0.240	1.952	0.448	0.000	50.650	866.900	637.100
%RSD		1.953	1.363	3.520	0.857	0.000	1.468	1.756	1.350

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	111000.000	3895.000	0.000	6960.000	135000.000	135800.000	68.605%	2325.000
2	19:30:29	109300.000	3852.000	0.000	7055.000	137300.000	137700.000	69.561%	2337.000
3	19:31:12	112800.000	3920.000	0.000	7141.000	138400.000	138500.000	69.330%	2344.000
x		111000.000	3889.000	0.000	7052.000	136900.000	137300.000	69.166%	2335.000
σ		1740.000	34.010	0.000	90.860	1738.000	1369.000	0.499%	9.515
%RSD		1.567	0.875	0.000	1.288	1.269	0.997	0.721	0.407

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	638.200	474.400	8056.000	296700.000	297600.000	137.100	265.900	336.300
2	19:30:29	634.500	471.700	8060.000	297100.000	298700.000	136.100	267.800	337.900
3	19:31:12	642.600	484.000	8218.000	302700.000	304500.000	137.900	272.000	343.600
x		638.400	476.700	8111.000	298800.000	300300.000	137.100	268.600	339.300
σ		4.024	6.441	92.240	3331.000	3725.000	0.899	3.116	3.822
%RSD		0.630	1.351	1.137	1.115	1.241	0.656	1.160	1.127

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	342.000	1509.000	1527.000	66.850	6.831	12.890	0.000	308.200
2	19:30:29	342.400	1525.000	1533.000	65.230	6.803	12.200	0.000	308.400
3	19:31:12	348.500	1547.000	1555.000	64.850	6.802	11.750	0.000	311.900
x		344.300	1527.000	1538.000	65.650	6.812	12.280	0.000	309.500
σ		3.618	19.350	14.720	1.063	0.016	0.572	0.000	2.072
%RSD		1.051	1.267	0.957	1.619	0.242	4.658	0.000	0.669

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	0.000	11.260	11.070	66.627%	2.852	2.911	10.010	9.590
2	19:30:29	0.000	10.990	11.060	68.769%	2.807	2.793	10.400	9.827
3	19:31:12	0.000	10.930	11.000	69.337%	2.876	2.838	10.420	9.514
x		0.000	11.060	11.040	68.244%	2.845	2.848	10.280	9.644
σ		0.000	0.174	0.035	1.429%	0.035	0.060	0.234	0.163
%RSD		0.000	1.575	0.317	2.094	1.239	2.095	2.279	1.695

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	68.292%	42.990	9.767	9.800	1126.000	1110.000	88.042%	88.675%
2	19:30:29	69.849%	42.840	9.468	9.572	1128.000	1111.000	90.833%	91.370%
3	19:31:12	70.353%	42.940	9.621	9.651	1132.000	1118.000	92.134%	93.391%
x		69.498%	42.920	9.619	9.674	1129.000	1113.000	90.336%	91.146%
σ		1.074%	0.077	0.149	0.116	2.790	4.466	2.091%	2.366%
%RSD		1.546	0.179	1.551	1.199	0.247	0.401	2.314	2.596

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:46	1.651	1.665	789.300	788.400	820.700	84.930%
2	19:30:29	1.636	1.655	788.500	788.100	820.600	87.670%
3	19:31:12	1.632	1.646	790.800	787.000	822.100	89.040%
x		1.640	1.655	789.600	787.800	821.200	87.214%
σ		0.010	0.010	1.166	0.724	0.853	2.093%
%RSD		0.628	0.591	0.148	0.092	0.104	2.399

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	83.299%	8.781	12.340	11.950	0.000	1302.000	4081.000	3894.000
2	19:34:45	81.564%	9.357	11.930	11.830	0.000	1310.000	4093.000	3961.000
3	19:35:27	81.405%	9.157	13.580	12.210	0.000	1331.000	4121.000	3970.000
x		82.089%	9.099	12.620	12.000	0.000	1315.000	4098.000	3942.000
σ		1.051%	0.292	0.859	0.197	0.000	15.150	20.770	41.080
%RSD		1.280	3.212	6.812	1.639	0.000	1.153	0.507	1.042
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	48780.000	3863.000	0.000	3532.000	5635.000	5198.000	69.283%	835.000
2	19:34:45	49850.000	3931.000	0.000	3556.000	5607.000	5257.000	67.093%	833.300
3	19:35:27	50230.000	3931.000	0.000	3592.000	5680.000	5279.000	67.620%	828.800
x		49620.000	3908.000	0.000	3560.000	5641.000	5245.000	67.999%	832.400
σ		749.400	39.250	0.000	30.420	36.880	41.990	1.143%	3.174
%RSD		1.510	1.004	0.000	0.855	0.654	0.800	1.681	0.381
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	238.000	136.100	883.900	162800.000	162700.000	82.060	116.200	124.300
2	19:34:45	241.800	139.000	869.500	166400.000	166500.000	84.830	118.700	129.300
3	19:35:27	237.400	136.800	868.300	165900.000	165900.000	83.810	117.500	125.500
x		239.100	137.300	873.900	165100.000	165000.000	83.560	117.500	126.400
σ		2.420	1.528	8.676	1927.000	2043.000	1.400	1.252	2.580
%RSD		1.012	1.113	0.993	1.167	1.238	1.675	1.065	2.042
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	124.900	295.800	297.600	30.100	1.372	4.826	0.000	49.470
2	19:34:45	129.900	303.700	306.100	30.920	1.148	4.610	0.000	50.610
3	19:35:27	126.600	303.200	303.800	28.970	0.989	5.250	0.000	50.850
x		127.100	300.900	302.500	30.000	1.169	4.896	0.000	50.310
σ		2.514	4.418	4.438	0.981	0.192	0.326	0.000	0.739
%RSD		1.978	1.468	1.467	3.269	16.450	6.649	0.000	1.470
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	0.000	4.104	4.149	74.962%	0.386	0.341	1.199	1.032
2	19:34:45	0.000	4.057	4.115	74.628%	0.363	0.365	1.246	0.945
3	19:35:27	0.000	4.089	4.151	75.103%	0.427	0.344	0.913	0.773
x		0.000	4.083	4.138	74.898%	0.392	0.350	1.120	0.916
σ		0.000	0.024	0.020	0.244%	0.032	0.013	0.180	0.132
%RSD		0.000	0.585	0.493	0.326	8.254	3.710	16.100	14.370
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:34:02	74.541%	14.330	1.489	1.351	359.900	356.700	87.172%	88.321%
2	19:34:45	74.697%	14.260	1.388	1.449	362.900	360.500	88.818%	90.275%
3	19:35:27	75.009%	13.940	1.407	1.373	360.800	358.900	89.429%	90.378%
x		74.749%	14.180	1.428	1.391	361.200	358.700	88.473%	89.658%
σ		0.238%	0.206	0.053	0.051	1.564	1.885	1.167%	1.159%
%RSD		0.319	1.457	3.736	3.670	0.433	0.525	1.319	1.293
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:34:02	0.960	1.043	104.600	100.400	102.800	92.091%		
2	19:34:45	0.989	1.016	103.700	100.400	102.600	94.147%		
3	19:35:27	0.965	1.032	103.400	100.400	102.300	94.796%		
x		0.972	1.030	103.900	100.400	102.600	93.678%		
σ		0.016	0.013	0.622	0.047	0.255	1.412%		
%RSD		1.608	1.278	0.599	0.046	0.248	1.508		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	82.445%	10.080	17.540	15.720	0.000	1494.000	7334.000	7025.000
2	19:39:01	83.540%	9.892	16.640	16.730	0.000	1485.000	7165.000	6913.000
3	19:39:44	80.963%	9.634	18.340	16.790	0.000	1516.000	7268.000	6964.000
x		82.316%	9.868	17.510	16.410	0.000	1498.000	7256.000	6968.000
σ		1.293%	0.224	0.849	0.601	0.000	15.880	85.370	56.240
%RSD		1.571	2.268	4.848	3.659	0.000	1.060	1.177	0.807

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	74100.000	4005.000	0.000	5810.000	6407.000	6017.000	70.480%	1093.000
2	19:39:01	73440.000	4059.000	0.000	5795.000	6437.000	5973.000	70.441%	1087.000
3	19:39:44	73610.000	4097.000	0.000	5861.000	6289.000	5986.000	70.034%	1088.000
x		73720.000	4054.000	0.000	5822.000	6377.000	5992.000	70.318%	1089.000
σ		341.800	46.030	0.000	34.880	78.280	22.560	0.247%	3.304
%RSD		0.464	1.135	0.000	0.599	1.227	0.377	0.352	0.303

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	355.900	203.800	623.200	147700.000	146900.000	68.540	149.300	167.200
2	19:39:01	358.300	201.000	621.600	148100.000	148200.000	68.770	147.000	166.500
3	19:39:44	355.700	203.100	630.200	148000.000	147400.000	68.130	148.700	166.700
x		356.600	202.600	625.000	148000.000	147500.000	68.480	148.300	166.800
σ		1.459	1.461	4.574	230.700	633.400	0.321	1.218	0.394
%RSD		0.409	0.721	0.732	0.156	0.429	0.469	0.821	0.236

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	168.300	400.700	400.700	27.620	1.680	5.880	0.000	82.490
2	19:39:01	166.600	402.000	403.900	26.330	1.648	6.612	0.000	83.070
3	19:39:44	169.000	402.300	399.600	27.530	1.320	6.190	0.000	82.710
x		168.000	401.700	401.400	27.160	1.549	6.227	0.000	82.760
σ		1.214	0.848	2.233	0.720	0.199	0.367	0.000	0.291
%RSD		0.723	0.211	0.556	2.649	12.850	5.900	0.000	0.351

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	0.000	4.999	4.883	73.400%	0.515	0.423	1.711	1.399
2	19:39:01	0.000	4.800	4.957	74.441%	0.481	0.459	1.524	1.256
3	19:39:44	0.000	4.598	4.972	74.764%	0.477	0.447	1.466	1.207
x		0.000	4.799	4.937	74.202%	0.491	0.443	1.567	1.287
σ		0.000	0.201	0.047	0.713%	0.021	0.018	0.128	0.100
%RSD		0.000	4.184	0.961	0.961	4.235	4.058	8.174	7.750

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	73.418%	16.170	1.943	2.010	545.300	537.500	90.205%	90.898%
2	19:39:01	74.409%	16.360	1.961	1.931	539.100	537.100	92.235%	92.697%
3	19:39:44	75.151%	15.540	1.890	1.933	539.900	534.300	92.532%	93.633%
x		74.326%	16.020	1.932	1.958	541.400	536.300	91.657%	92.409%
σ		0.870%	0.429	0.037	0.045	3.382	1.747	1.267%	1.390%
%RSD		1.170	2.678	1.913	2.299	0.625	0.326	1.382	1.504

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:18	1.425	1.537	138.200	134.400	137.200	91.074%
2	19:39:01	1.483	1.499	137.600	132.900	136.100	93.101%
3	19:39:44	1.492	1.500	136.200	133.000	135.900	93.556%
x		1.467	1.512	137.300	133.400	136.400	92.577%
σ		0.036	0.022	0.999	0.809	0.683	1.321%
%RSD		2.476	1.448	0.728	0.606	0.500	1.427

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	78.678%	28.280	25.660	23.940	0.000	2378.000	11570.000	12150.000
2	19:47:36	77.367%	26.130	24.200	23.660	0.000	2376.000	11820.000	11340.000
3	19:48:19	79.680%	27.490	23.280	22.800	0.000	2362.000	11790.000	11330.000
x		78.575%	27.300	24.380	23.470	0.000	2372.000	11730.000	11610.000
σ		1.160%	1.088	1.203	0.593	0.000	9.201	137.000	469.200
%RSD		1.476	3.984	4.934	2.525	0.000	0.388	1.168	4.042

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	107200.000	1851.000	0.000	6041.000	24430.000	22580.000	68.982%	1033.000
2	19:47:36	105700.000	1821.000	0.000	6034.000	24060.000	22700.000	68.047%	1056.000
3	19:48:19	105700.000	1835.000	0.000	6056.000	24000.000	22920.000	67.196%	1048.000
x		106200.000	1836.000	0.000	6044.000	24170.000	22740.000	68.075%	1046.000
σ		844.600	15.100	0.000	11.200	230.200	172.900	0.893%	11.440
%RSD		0.795	0.823	0.000	0.185	0.953	0.760	1.312	1.094

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	-231.500	19720.000	3933.000	230100.000	228200.000	253.000	331.400	861.600
2	19:47:36	-141.900	19660.000	3908.000	228000.000	227400.000	257.100	335.400	868.500
3	19:48:19	-193.800	20040.000	3984.000	231000.000	229600.000	258.600	338.400	867.900
x		-189.100	19810.000	3942.000	229700.000	228400.000	256.200	335.100	866.000
σ		45.020	201.600	38.580	1560.000	1089.000	2.857	3.469	3.832
%RSD		23.810	1.018	0.979	0.679	0.477	1.115	1.035	0.443

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	861.300	1988.000	2021.000	57.390	8.437	12.110	0.000	177.400
2	19:47:36	878.600	2001.000	2031.000	58.450	8.303	11.480	0.000	177.900
3	19:48:19	874.000	2018.000	2041.000	58.390	8.746	12.380	0.000	179.400
x		871.300	2003.000	2031.000	58.080	8.496	11.990	0.000	178.200
σ		8.950	15.030	9.961	0.596	0.227	0.465	0.000	1.017
%RSD		1.027	0.750	0.490	1.027	2.674	3.875	0.000	0.571

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	0.000	9.862	10.350	67.826%	2.127	2.183	1267.000	1279.000
2	19:47:36	0.000	10.010	10.130	67.125%	2.137	2.154	1274.000	1280.000
3	19:48:19	0.000	10.100	10.310	66.996%	2.142	2.107	1279.000	1292.000
x		0.000	9.990	10.260	67.316%	2.135	2.148	1274.000	1284.000
σ		0.000	0.120	0.120	0.446%	0.007	0.038	6.238	7.239
%RSD		0.000	1.197	1.165	0.663	0.344	1.768	0.490	0.564

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	67.482%	63.480	137.000	134.300	952.700	940.600	84.166%	84.443%
2	19:47:36	66.881%	61.860	86.490	85.800	948.600	942.200	84.163%	84.464%
3	19:48:19	66.376%	62.500	65.370	64.940	957.900	942.300	84.175%	84.377%
x		66.913%	62.610	96.270	95.020	953.000	941.700	84.168%	84.428%
σ		0.554%	0.817	36.780	35.600	4.657	0.953	0.006%	0.045%
%RSD		0.828	1.305	38.200	37.470	0.489	0.101	0.008	0.054

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:46:53	2.016	2.124	1205.000	1194.000	1243.000	82.296%
2	19:47:36	1.975	2.057	1161.000	1150.000	1200.000	83.223%
3	19:48:19	2.039	2.057	1154.000	1143.000	1192.000	83.320%
x		2.010	2.080	1173.000	1162.000	1212.000	82.946%
σ		0.033	0.039	27.500	27.400	27.360	0.565%
%RSD		1.621	1.868	2.344	2.358	2.257	0.682

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	88.946%	28.590	23.420	23.170	0.000	1299.000	9451.000	9125.000
2	19:51:54	90.272%	27.860	23.040	22.590	0.000	1300.000	9304.000	8969.000
3	19:52:37	87.712%	28.940	22.880	22.160	0.000	1326.000	9343.000	8950.000
x		88.977%	28.460	23.110	22.640	0.000	1308.000	9366.000	9015.000
σ		1.280%	0.555	0.279	0.507	0.000	15.220	76.360	96.350
%RSD		1.439	1.949	1.205	2.239	0.000	1.164	0.815	1.069

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	102200.000	2382.000	0.000	6089.000	12910.000	11890.000	74.917%	1028.000
2	19:51:54	100300.000	2376.000	0.000	6193.000	12920.000	12060.000	74.734%	1037.000
3	19:52:37	101200.000	2380.000	0.000	6193.000	12830.000	12080.000	74.317%	1036.000
x		101300.000	2379.000	0.000	6158.000	12890.000	12010.000	74.656%	1033.000
σ		951.400	3.162	0.000	59.880	46.100	105.800	0.307%	5.110
%RSD		0.940	0.133	0.000	0.972	0.358	0.881	0.412	0.495

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	378.400	424.600	1866.000	179800.000	179400.000	405.100	365.100	302.900
2	19:51:54	376.000	423.800	1874.000	181400.000	179800.000	406.100	366.200	302.300
3	19:52:37	381.500	420.900	1878.000	181800.000	180000.000	402.600	367.700	302.200
x		378.700	423.100	1873.000	181000.000	179700.000	404.600	366.300	302.500
σ		2.772	1.929	6.205	1077.000	298.400	1.808	1.299	0.360
%RSD		0.732	0.456	0.331	0.595	0.166	0.447	0.355	0.119

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	305.100	1180.000	1199.000	45.590	6.487	9.369	0.000	127.200
2	19:51:54	304.100	1195.000	1200.000	45.910	5.380	10.030	0.000	127.600
3	19:52:37	302.600	1203.000	1206.000	45.940	5.567	9.473	0.000	127.400
x		303.900	1193.000	1202.000	45.810	5.812	9.624	0.000	127.400
σ		1.266	11.370	3.836	0.198	0.593	0.356	0.000	0.197
%RSD		0.417	0.953	0.319	0.431	10.200	3.699	0.000	0.155

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	0.000	6.802	7.110	72.915%	0.865	0.857	20.310	19.710
2	19:51:54	0.000	6.748	6.898	73.875%	0.880	0.870	20.500	20.000
3	19:52:37	0.000	6.943	6.774	74.214%	0.865	0.941	19.970	19.780
x		0.000	6.831	6.928	73.668%	0.870	0.889	20.260	19.830
σ		0.000	0.101	0.170	0.674%	0.009	0.045	0.265	0.152
%RSD		0.000	1.477	2.453	0.915	1.020	5.086	1.309	0.767

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	71.524%	27.580	23.790	23.920	785.300	775.000	87.403%	88.163%
2	19:51:54	72.421%	27.080	20.160	20.060	786.400	776.500	89.357%	89.872%
3	19:52:37	73.013%	26.930	16.810	16.620	781.700	775.800	89.929%	90.931%
x		72.319%	27.190	20.250	20.200	784.500	775.800	88.896%	89.655%
σ		0.750%	0.341	3.491	3.654	2.439	0.757	1.325%	1.397%
%RSD		1.037	1.255	17.240	18.090	0.311	0.098	1.490	1.558

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:51:11	2.004	1.988	411.800	404.000	410.500	86.323%
2	19:51:54	2.039	1.970	409.000	400.600	407.200	87.884%
3	19:52:37	2.004	2.072	404.600	397.100	402.200	89.364%
x		2.016	2.010	408.500	400.600	406.600	87.857%
σ		0.020	0.055	3.633	3.439	4.165	1.521%
%RSD		1.016	2.726	0.889	0.859	1.024	1.731

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	89.285%	9.666	45.870	46.000	0.000	16950.000	19530.000	18750.000
2	19:56:12	89.576%	9.573	47.690	45.210	0.000	17000.000	19110.000	18430.000
3	19:56:55	87.739%	9.916	47.360	47.310	0.000	17280.000	19600.000	18810.000
x		88.867%	9.718	46.980	46.170	0.000	17080.000	19420.000	18660.000
σ		0.987%	0.177	0.970	1.065	0.000	180.200	267.200	200.700
%RSD		1.111	1.823	2.065	2.306	0.000	1.055	1.376	1.075

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	89460.000	2287.000	0.000	11200.000	7997.000	7468.000	74.205%	1030.000
2	19:56:12	88090.000	2262.000	0.000	11100.000	8230.000	7527.000	73.495%	1019.000
3	19:56:55	89180.000	2321.000	0.000	11320.000	8089.000	7439.000	73.280%	1023.000
x		88910.000	2290.000	0.000	11210.000	8105.000	7478.000	73.660%	1024.000
σ		724.200	29.630	0.000	112.400	117.200	44.420	0.484%	5.841
%RSD		0.815	1.294	0.000	1.003	1.445	0.594	0.657	0.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	286.100	635.900	2109.000	184000.000	181900.000	113.600	218.900	1172.000
2	19:56:12	285.500	631.600	2116.000	184500.000	184200.000	114.500	218.100	1171.000
3	19:56:55	285.600	628.200	2128.000	185400.000	184100.000	115.500	221.100	1176.000
x		285.700	631.900	2118.000	184700.000	183400.000	114.500	219.400	1173.000
σ		0.338	3.857	9.801	740.500	1320.000	0.940	1.556	2.487
%RSD		0.118	0.610	0.463	0.401	0.720	0.821	0.709	0.212

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	1179.000	1950.000	1947.000	73.170	7.010	10.130	0.000	148.600
2	19:56:12	1191.000	1978.000	1982.000	74.750	6.572	10.910	0.000	150.600
3	19:56:55	1190.000	1983.000	2002.000	76.000	6.694	10.770	0.000	151.600
x		1187.000	1970.000	1977.000	74.640	6.759	10.600	0.000	150.300
σ		7.085	18.050	28.210	1.414	0.226	0.412	0.000	1.523
%RSD		0.597	0.916	1.427	1.895	3.341	3.887	0.000	1.013

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	0.000	14.930	14.890	74.008%	7.335	7.311	13.440	13.010
2	19:56:12	0.000	14.890	14.870	74.988%	7.434	7.290	13.630	13.140
3	19:56:55	0.000	14.790	15.120	74.602%	7.445	7.305	13.270	12.880
x		0.000	14.870	14.960	74.532%	7.405	7.302	13.450	13.010
σ		0.000	0.072	0.139	0.493%	0.061	0.011	0.183	0.130
%RSD		0.000	0.486	0.926	0.662	0.820	0.149	1.358	0.999

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	72.896%	45.380	11.790	11.740	249.000	247.700	86.579%	86.981%
2	19:56:12	73.258%	45.580	10.950	11.140	251.500	247.600	87.517%	88.770%
3	19:56:55	74.189%	45.500	10.060	10.010	251.700	248.800	88.614%	89.291%
x		73.448%	45.490	10.930	10.960	250.700	248.100	87.570%	88.347%
σ		0.667%	0.099	0.867	0.879	1.515	0.661	1.018%	1.212%
%RSD		0.908	0.218	7.928	8.018	0.604	0.267	1.163	1.371

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:55:29	1.257	1.345	888.200	882.300	919.200	87.333%
2	19:56:12	1.295	1.324	880.900	874.500	913.100	89.999%
3	19:56:55	1.312	1.342	879.300	870.700	910.200	90.775%
x		1.288	1.337	882.800	875.800	914.200	89.369%
σ		0.028	0.011	4.757	5.882	4.620	1.805%
%RSD		2.195	0.838	0.539	0.672	0.505	2.020

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	83.249%	11.640	55.490	52.570	0.000	18390.000	22740.000	21990.000
2	20:00:31	82.904%	11.630	54.830	53.060	0.000	18650.000	22980.000	22350.000
3	20:01:14	83.750%	11.600	55.060	54.090	0.000	18540.000	22680.000	21740.000
x		83.301%	11.630	55.130	53.240	0.000	18530.000	22800.000	22030.000
σ		0.426%	0.021	0.334	0.777	0.000	134.700	161.100	308.900
%RSD		0.511	0.179	0.605	1.460	0.000	0.727	0.707	1.403

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	112800.000	1675.000	0.000	13260.000	8805.000	8125.000	72.062%	981.300
2	20:00:31	115400.000	1676.000	0.000	13290.000	8759.000	8163.000	72.041%	982.100
3	20:01:14	111900.000	1638.000	0.000	13330.000	9056.000	8157.000	72.502%	992.900
x		113300.000	1663.000	0.000	13290.000	8873.000	8149.000	72.202%	985.400
σ		1820.000	21.640	0.000	36.590	159.900	20.620	0.260%	6.477
%RSD		1.606	1.301	0.000	0.275	1.802	0.253	0.360	0.657

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	342.600	1474.000	2920.000	210900.000	210300.000	149.400	303.400	733.300
2	20:00:31	337.600	1475.000	2902.000	210800.000	209900.000	148.700	303.700	724.200
3	20:01:14	343.800	1469.000	2888.000	208900.000	208200.000	147.500	296.100	715.800
x		341.300	1472.000	2903.000	210200.000	209400.000	148.500	301.100	724.400
σ		3.266	3.082	16.160	1137.000	1112.000	0.959	4.278	8.730
%RSD		0.957	0.209	0.557	0.541	0.531	0.645	1.421	1.205

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	736.500	2522.000	2543.000	67.660	10.870	14.120	0.000	187.300
2	20:00:31	725.600	2483.000	2501.000	64.940	9.619	13.950	0.000	180.600
3	20:01:14	727.900	2474.000	2494.000	65.310	10.270	13.970	0.000	179.300
x		730.000	2493.000	2512.000	65.970	10.250	14.010	0.000	182.400
σ		5.740	25.740	26.230	1.473	0.625	0.090	0.000	4.280
%RSD		0.786	1.032	1.044	2.233	6.098	0.644	0.000	2.347

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	0.000	10.250	10.340	66.734%	16.540	16.280	46.920	45.900
2	20:00:31	0.000	9.782	9.834	71.970%	15.850	15.720	44.960	46.010
3	20:01:14	0.000	9.785	10.080	72.157%	15.610	15.690	46.220	45.990
x		0.000	9.940	10.080	70.287%	16.000	15.900	46.030	45.970
σ		0.000	0.271	0.254	3.078%	0.486	0.332	0.995	0.058
%RSD		0.000	2.724	2.517	4.379	3.036	2.089	2.162	0.125

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	71.100%	53.540	10.090	9.693	318.700	316.800	84.909%	86.191%
2	20:00:31	71.885%	53.840	10.110	9.733	318.900	315.900	85.450%	86.927%
3	20:01:14	71.617%	53.680	10.030	9.826	321.200	316.300	86.327%	87.720%
x		71.534%	53.680	10.080	9.751	319.600	316.300	85.562%	86.946%
σ		0.399%	0.152	0.047	0.069	1.362	0.438	0.716%	0.765%
%RSD		0.558	0.282	0.462	0.704	0.426	0.138	0.837	0.880

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:59:48	1.721	1.770	1156.000	1150.000	1203.000	85.967%
2	20:00:31	1.716	1.755	1154.000	1150.000	1201.000	87.362%
3	20:01:14	1.697	1.768	1147.000	1146.000	1195.000	88.348%
x		1.711	1.764	1152.000	1149.000	1200.000	87.226%
σ		0.013	0.008	5.056	2.419	4.027	1.196%
%RSD		0.749	0.449	0.439	0.210	0.336	1.371

L500D 9/2/2010 8:03:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	82.157%	11.280	72.410	72.630	0.000	19350.000	30360.000	29230.000
2	20:04:50	80.841%	10.990	73.580	70.590	0.000	19290.000	29980.000	28950.000
3	20:05:33	80.894%	11.870	72.550	69.660	0.000	19400.000	29970.000	28840.000
x		81.298%	11.380	72.850	70.960	0.000	19350.000	30100.000	29010.000
σ		0.745%	0.449	0.637	1.519	0.000	55.900	220.200	202.200
%RSD		0.917	3.941	0.874	2.140	0.000	0.289	0.732	0.697

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	131800.000	1852.000	0.000	18610.000	9091.000	8645.000	73.511%	1066.000
2	20:04:50	132000.000	1846.000	0.000	18740.000	9432.000	8625.000	73.697%	1086.000
3	20:05:33	131500.000	1864.000	0.000	18920.000	9664.000	8795.000	72.233%	1077.000
x		131800.000	1854.000	0.000	18760.000	9396.000	8688.000	73.147%	1076.000
σ		272.900	9.478	0.000	154.200	288.600	92.800	0.797%	9.790
%RSD		0.207	0.511	0.000	0.822	3.072	1.068	1.090	0.910

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	324.000	271.800	3822.000	246700.000	245200.000	112.400	188.000	190.100
2	20:04:50	322.300	270.800	3829.000	246900.000	245500.000	112.700	185.700	188.200
3	20:05:33	323.400	268.100	3864.000	248700.000	248900.000	113.600	188.100	191.300
x		323.200	270.200	3839.000	247400.000	246500.000	112.900	187.300	189.900
σ		0.872	1.930	22.120	1108.000	2094.000	0.614	1.345	1.601
%RSD		0.270	0.714	0.576	0.448	0.850	0.544	0.718	0.843

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	193.400	674.000	678.900	56.180	4.460	9.421	0.000	195.400
2	20:04:50	189.900	684.000	683.600	56.500	4.119	9.004	0.000	195.800
3	20:05:33	191.500	691.700	698.900	57.150	4.136	9.031	0.000	197.400
x		191.600	683.200	687.100	56.610	4.238	9.152	0.000	196.200
σ		1.762	8.850	10.470	0.494	0.192	0.233	0.000	1.099
%RSD		0.920	1.295	1.524	0.873	4.535	2.549	0.000	0.560

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	0.000	12.890	12.700	71.754%	0.822	0.672	5.049	4.785
2	20:04:50	0.000	12.760	12.740	72.701%	0.766	0.665	4.896	4.833
3	20:05:33	0.000	12.600	12.740	72.935%	0.775	0.686	5.291	4.894
x		0.000	12.750	12.730	72.463%	0.787	0.674	5.079	4.837
σ		0.000	0.147	0.024	0.625%	0.030	0.011	0.199	0.055
%RSD		0.000	1.157	0.191	0.863	3.778	1.571	3.925	1.136

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	71.559%	16.550	5.321	5.435	303.800	302.400	87.298%	88.514%
2	20:04:50	72.353%	16.330	5.080	5.270	306.800	302.500	89.063%	90.324%
3	20:05:33	72.591%	16.580	5.039	4.881	307.900	301.100	90.228%	91.327%
x		72.168%	16.490	5.147	5.195	306.200	302.000	88.863%	90.055%
σ		0.540%	0.139	0.152	0.284	2.150	0.752	1.475%	1.426%
%RSD		0.749	0.842	2.955	5.475	0.702	0.249	1.660	1.583

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	20:04:07	1.617	1.652	201.800	197.700	201.400	86.548%
2	20:04:50	1.636	1.670	202.200	198.600	201.600	88.534%
3	20:05:33	1.636	1.661	202.200	198.600	201.600	89.651%
x		1.630	1.661	202.000	198.300	201.500	88.245%
σ		0.011	0.009	0.244	0.474	0.094	1.572%
%RSD		0.699	0.561	0.121	0.239	0.047	1.781

L500E 9/2/2010 8:07:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	79.746%	10.500	89.510	88.370	0.000	19510.000	35140.000	33330.000
2	20:09:07	80.770%	10.400	92.190	86.570	0.000	19390.000	34600.000	33240.000
3	20:09:51	79.472%	10.570	87.480	86.570	0.000	19460.000	34290.000	33030.000
x		79.996%	10.490	89.730	87.170	0.000	19450.000	34670.000	33200.000
σ		0.684%	0.087	2.359	1.037	0.000	56.910	432.600	153.600
%RSD		0.855	0.827	2.630	1.190	0.000	0.293	1.248	0.463
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	113500.000	1792.000	0.000	21130.000	9545.000	8825.000	71.874%	982.600
2	20:09:07	113300.000	1764.000	0.000	21300.000	9570.000	8821.000	71.237%	995.800
3	20:09:51	115000.000	1788.000	0.000	21340.000	9452.000	8926.000	70.637%	1003.000
x		114000.000	1781.000	0.000	21260.000	9523.000	8857.000	71.249%	993.900
σ		934.300	15.020	0.000	112.700	62.250	59.260	0.618%	10.480
%RSD		0.820	0.843	0.000	0.530	0.654	0.669	0.868	1.054
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	247.700	222.700	5320.000	222300.000	222200.000	101.800	164.700	124.200
2	20:09:07	248.000	222.300	5408.000	225800.000	225500.000	103.100	164.800	124.000
3	20:09:51	252.400	227.000	5441.000	228000.000	227200.000	103.900	165.500	125.600
x		249.400	224.000	5390.000	225400.000	225000.000	102.900	165.000	124.600
σ		2.648	2.611	62.340	2895.000	2568.000	1.096	0.417	0.878
%RSD		1.062	1.166	1.157	1.284	1.141	1.065	0.253	0.705
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	124.200	663.000	657.300	37.750	3.033	6.987	0.000	190.000
2	20:09:07	125.100	674.200	670.300	37.420	2.817	7.165	0.000	192.400
3	20:09:51	125.800	672.400	679.900	38.050	2.718	6.725	0.000	194.800
x		125.000	669.900	669.100	37.740	2.856	6.959	0.000	192.400
σ		0.820	6.023	11.330	0.313	0.161	0.222	0.000	2.404
%RSD		0.656	0.899	1.693	0.829	5.653	3.183	0.000	1.250
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	0.000	9.563	9.610	71.977%	0.424	0.335	4.533	3.993
2	20:09:07	0.000	9.349	9.350	72.961%	0.403	0.348	4.003	3.608
3	20:09:51	0.000	9.539	9.512	72.947%	0.416	0.309	4.135	3.734
x		0.000	9.484	9.491	72.628%	0.414	0.330	4.224	3.778
σ		0.000	0.117	0.132	0.564%	0.011	0.020	0.276	0.196
%RSD		0.000	1.237	1.386	0.777	2.689	5.968	6.530	5.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:08:24	71.415%	12.980	3.292	3.333	230.400	230.500	87.645%	88.038%
2	20:09:07	72.457%	12.990	3.248	3.296	229.700	229.300	89.066%	89.703%
3	20:09:51	72.974%	13.120	3.105	3.005	230.600	229.500	89.921%	90.645%
x		72.282%	13.030	3.215	3.212	230.200	229.800	88.877%	89.462%
σ		0.794%	0.075	0.098	0.180	0.420	0.616	1.150%	1.320%
%RSD		1.098	0.578	3.046	5.591	0.182	0.268	1.294	1.476
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:08:24	1.302	1.249	111.600	108.800	110.800	87.701%		
2	20:09:07	1.219	1.276	111.000	107.500	110.300	90.012%		
3	20:09:51	1.279	1.259	111.700	108.700	110.700	90.610%		
x		1.266	1.261	111.400	108.400	110.600	89.441%		
σ		0.043	0.013	0.397	0.736	0.280	1.536%		
%RSD		3.371	1.064	0.356	0.679	0.253	1.718		

L50X4/100 9/5/2010 12:13:17 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	90.888%	0.192	1.041	0.917	0.000	60.420	1415.000	1417.000
2	12:14:43	94.536%	0.287	1.200	0.926	0.000	61.770	1427.000	1415.000
3	12:15:26	94.776%	0.133	1.151	0.842	0.000	61.920	1441.000	1436.000
x		93.400%	0.204	1.131	0.895	0.000	61.370	1428.000	1423.000
σ		2.179%	0.078	0.081	0.046	0.000	0.826	12.650	11.220
%RSD		2.333	38.070	7.173	5.185	0.000	1.346	0.886	0.789

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	1104.000	17.490	0.000	85.480	3538.000	3723.000	92.401%	28.130
2	12:14:43	1097.000	17.370	0.000	87.170	3575.000	3873.000	91.151%	29.220
3	12:15:26	1106.000	19.640	0.000	86.240	3591.000	3867.000	91.624%	28.570
x		1102.000	18.170	0.000	86.300	3568.000	3821.000	91.726%	28.640
σ		4.644	1.279	0.000	0.848	27.250	84.860	0.631%	0.549
%RSD		0.421	7.041	0.000	0.982	0.764	2.221	0.688	1.918

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	4.464	12.560	94.470	2544.000	2590.000	1.499	2.124	5.747
2	12:14:43	4.579	12.840	97.170	2519.000	2586.000	1.597	2.202	5.795
3	12:15:26	4.629	12.960	97.850	2541.000	2580.000	1.476	2.199	5.970
x		4.557	12.790	96.500	2535.000	2585.000	1.524	2.175	5.838
σ		0.085	0.207	1.788	13.560	5.404	0.064	0.044	0.117
%RSD		1.862	1.619	1.853	0.535	0.209	4.209	2.034	2.013

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	5.920	25.000	25.660	1.705	0.153	0.287	0.000	5.713
2	12:14:43	5.903	25.870	26.570	1.835	-0.348	0.404	0.000	5.802
3	12:15:26	6.153	26.030	25.950	1.875	-0.396	0.492	0.000	5.786
x		5.992	25.630	26.060	1.805	-0.197	0.395	0.000	5.767
σ		0.140	0.557	0.464	0.089	0.304	0.103	0.000	0.047
%RSD		2.331	2.174	1.781	4.926	154.100	26.140	0.000	0.822

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	95.619%	1.187	1.227	95.348%	0.372	0.350	4.433	4.425
2	12:14:43	97.447%	0.990	1.076	95.597%	0.334	0.351	4.421	4.456
3	12:15:26	98.459%	0.910	0.914	96.414%	0.336	0.354	4.459	4.597
x		97.175%	1.029	1.072	95.787%	0.347	0.351	4.438	4.493
σ		1.439%	0.143	0.156	0.557%	0.021	0.002	0.020	0.092
%RSD		1.481	13.860	14.590	0.582	6.158	0.590	0.443	2.037

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	96.593%	5.238	354.400	354.800	13.460	14.420	99.301%	99.409%
2	12:14:43	97.925%	5.315	358.000	359.800	13.480	14.070	99.675%	100.615%
3	12:15:26	98.329%	5.676	359.100	359.200	13.690	13.910	100.267%	100.604%
x		97.616%	5.410	357.200	357.900	13.540	14.130	99.748%	100.209%
σ		0.909%	0.234	2.488	2.707	0.128	0.261	0.487%	0.693%
%RSD		0.931	4.327	0.697	0.756	0.947	1.848	0.488	0.692

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:00	0.091	0.077	4909.000	4678.000	4783.000	95.328%
2	12:14:43	0.071	0.089	5007.000	4762.000	4877.000	95.213%
3	12:15:26	0.058	0.075	5025.000	4791.000	4898.000	94.912%
x		0.073	0.080	4980.000	4744.000	4853.000	95.151%
σ		0.017	0.008	62.140	58.740	61.210	0.215%
%RSD		22.700	9.659	1.248	1.238	1.261	0.226

TestAmerica Pittsburgh — mercury ~~Metals~~ Preparation Log

WAH 9-1-10

Batch No. 0244012

v1.0.6 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time -0435-0635	SDG -
Analyst william hoyle	Date -09-01-10	Lot Numbers	
MS Hg Working CAL		C0H210447	
Lab Lot # -MET4535-10			
Analyst Sign: William A. Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L500A	1.20g	100 ml	
L500D			
L500E			WAH 9-1-10
L50X0			
L50X0 S			1 ml MET4535-10
L50X0 D			
L50X1			
L50X2			
L50X3			
L50X4			
L50X5			
L50X6			
L50X7			WAH 9-1-10
L50XR			
L50XT			
L50XW			
L50XX			
L6DQ8 B	1.20g DI H2O		
L6DQ8 C	100ml		MET4545-10
			WAH 9-1-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Minimum digestion times have been met (analyst initials):

Hot Plate/Block Temp	Correction Factor
95°C	IP30 -1.0°C
WAH	9-1-10

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-1-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 01-Sep-10 5:44:15 AM

Reviewed By: Lori Rosenbaum 4136 Date: 9/1/10

MET-154-0244012 - 4144

C0H210447

TestAmerica Pittsburgh ~~Metals~~ MERCURY Preparation Log

WAH 9-1-10

v1.0.5 - Last Revised 12/30/2005

Batch No. 0244015

Method 7471A	Matrix Solid	Start Time -0435-0635	SDG -
Analyst william hoyle	Date -09-01-10	Lot Numbers C0H160483, C0H210454, C0H270541, C0H300436	
MS Hg Working CAL			
Lab Lot # -MET4535-10			
Analyst Sign: William a Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5003	0.6g	100ml	
L5004			
L5005			
L5006			
L5007			WAH 9-1-10
L5008			
L501G			
L501H			
L58EK			
L5MVA			
L5MVA S			1ml MET4535-10
L5MVA D			
L5MVC			
L5MVD			
L5MVE			
L5MVF			
L5MVG			WAH 9-1-10
L5MVH			
L5MVJ			
L5MVK			
L6AFX			
L6DRF B	0.6g DIH20		
L6DRF C	100ml		MET4546-10
		WAH	9-1-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#3 95°C	IP31 - -1.0°C
WAH	9-1-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-1-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 01-Sep-10 5:45:34 AM

C0H210447 Reviewed By: Ron Rosenbaum 4137 Date: 9/1/10 MET-154-0244015 (3001 - 4144)

TestAmerica Pittsburgh MERCURY ~~Metals~~ Preparation Log

Batch No. 0244019

WAH 9-1-10 v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Biological	Start Time -0435-0635	SDG -
Analyst william hoyle	Date -09-01-10	Lot Numbers	
MS Hg Working CAL		C0H140450, C0H210433	
Lab Lot # -MET4535-10			
Analyst Sign: William o Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L50QL	0.6g	100ml	
L50QR			WAH 9-1-10
L5K9A			
L5K9A S			1ml MET4535-10
L5K9A D			
L5K9C			
L5K9D			
L5K9F			WAH 9-1-10
L5K9G			
L6DRP B	0.6g DIH20		
L6DRP C	100ml		MET4547-10
			WAH 9-1-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Minimum digestion times have been met (analyst initials):

Hot Plate/Block Temp	Correction Factor
#4 95°C	IR33 -1.0°C
WAH	9-1-10

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-1-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K11592821A	Whatman	Printed on: 01-Sep-10 5:46:04 AM

Reviewed By: Lori Rosenbaum 4138 Date: 9/1/10

TestAmerica Pittsburgh

Sulfide AVS/SEM Distillation Worksheet

Batch No: 0244072

Method: Sulfide AVS/SEM	Matrix: Solid	Lot Numbers: C0H200440, C0H200635, C0H210447
Start Time: 07:50	Stop Time: 08:50	
Start Temp.: 20.8	Stop Temp.: 21.4	
Analyst: Dennis Baker	Date: 09/01/2010	
Analyst Sign: D Baker		

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Expiration Date	Sulfide Present (Y/N)[1]	Comments
L6DWC1AAB	10.07	250		NA	GLASS BEADS WC 3168-IC
L6DWC1ACC					" " +2.5ml 2145-IC
L6DWC1ADL					" " +" " " "
L50XR1A4					
L50XT1AF					
L50XW1AF					
L50XX1AF					
L5WL31CH					
L5WLT1CH					
L5WML1CH					
L5X201AR					
L5X211AX					
L5X261A4					
L5X291A3					
L5X2M1A4					
L5X2P1AF					
L5X2T1AL					
L5X2W1A3					
L5X3A1A4					
L5X3D1AF					
L5X3F1AL					
L5X3G1AE					

DB 9-1-10

DB 9-1-10

DB 9-1-10

[1] If sulfides are present, treat sample with powdered cadmium or lead carbonate until there is no reaction to the lead acetate paper.

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

Reagents:

Sulfide Stock, Std 2717-09, Standards Log
Sulfide LCS, WC 4324-10, Standards Log
Zinc Acetate, Std 1911-10, StandardsLog
Sulfide CCV, WC 4325-10, Standards Log

NOTE: Distillates are disposed of 14 days after analysis

Balance ID:	25606
Pipet #:	H30608
LCS True Value:	2.9944 umoles
LCS StdsLogID:	WC 4324-10
MS/MSD Conc.:	2.9944 umoles
MS/MSD StdsLogID:	WC 4324-10
Glass or Plastic Beads:	Standard ID

Digestate(s)	(Received) Date	Time	Analyst	Location	(Relinquished) Date	Time	Analyst	Location
All Above	9-1-10	1030	DB	W-C	9-1-10	1030	DB	METALS
All Above	09.01.10	1100	ACC	EQ	09.07.10	1011	ACC	E3

Additional Comments:

Reviewed By: [signature] Date: 9-1-10

C0H210447

4140

WS-97-0244072

(3001 - 4144)

TestAmerica Pittsburgh *Metals Preparation Log*

Batch No. 0244169

v1.0.5 - Last Revised 12/30/2005

Method 6020 Soil	**Matrix** Solid	**Start Time** 1130	**SDG** -
Analyst Caitlyn Haluck	**Date** 9/1/10	**Lot Numbers**	
MS TAPITT-MS-C, TAPITT-MS-ICPMS		C0H210447	
Lab Lot # -met4267-10, met2846-10			
Analyst Sign: Caitlyn Haluck			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L500A	2.0g	100mL	
L500D			
L500E			
L50X0			
L50X1			
L50X2			
L50X3			CH 9.1.10
L50X4			
L50X5			
L50X6			
L50X7			
L50XR			
L50XR S			+1.0mL MS-C, MS-ICP
L50XR D			
L50XT			
L50XW			
L50XX			CH 9.1.10
L6D77 B	2.0g chips		
L6D77 C			+1.0mL MS-C, MS-ICP
			CH 9.1.10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents: 5 ml Optima Conc HNO3, 6901 J08N59, JT Baker
10 ml 1:1 Optima HNO3, MET 4487-10, Stds. Log
10ml Opt. Conc. HCl, V078 J02N57, Mallinckrodt
10 ml 30% H2O2, 3408 H47A18, Mallinckrodt

Minimum digestion times have been met (analyst initials): CH

Hot Plate/Block Temp	Correction Factor
#10/94°C	±0.0°C

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
all above	9.1.10		1315	CH	Prep	9.1.10		1450	CH	AA
All Above	9-2-10		1750	WK	AH	9-2-10		1500	WK	AH
All Above	9-5-10		0905	WK	AH	9-5-10		1450	WK	AH

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Environmental Express	**Pipet #:** 03F95602
Final Digestion Vessel:	100504	Corning	**Balance #:** P1856710
Filter Paper:	K11597490	Whatman	Printed on: 01-Sep-10 11:49:51 AM

Reviewed By: James W. Swanson **Date:** 9-1-10

MET-154-0244169

C0H210447 4141 (3901 4144)

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST **Chart Number:** T00902B.ARC

Start Date: 9/2/2010 **End Date:** 9/3/2010

Lab Sample Name	DF	Time of Analysis	Analytes						
			AG	CD	CR	CU	NI	PB	ZN
STD1	1	2:34 PM	X	X	X	X	X		X
STD2	1	2:40 PM	X	X					
STD4	1	2:51 PM			X	X	X		X
ICV1-1	1	2:56 PM	X	X	X	X	X	X	X
ICB	1	3:03 PM	X	X	X	X	X	X	X
CRA/RLV	1	3:09 PM	X	X	X	X	X	X	X
ICSA	1	3:14 PM	X	X	X	X	X	X	X
ICSAB	1	3:20 PM	X	X	X	X	X	X	X
CCV1-1	1	3:25 PM	X	X	X	X	X	X	X
CCB1	1	3:31 PM	X	X	X	X	X	X	X
CCV1-2	1	4:43 PM	X	X	X	X	X	X	X
CCB2	1	4:48 PM	X	X	X	X	X	X	X
CCV1-3	1	5:48 PM	X	X	X	X	X	X	X
CCB3	1	5:54 PM	X	X	X	X	X	X	X
CCV1-4	1	6:54 PM	X	X	X	X	X	X	X
CCB4	1	7:00 PM	X	X	X	X	X	X	X
CCV1-5	1	7:16 PM	X	X	X	X	X	X	X
CCB5	1	7:21 PM	X	X	X	X	X	X	X
CCV1-6	1	8:22 PM	X	X	X	X	X	X	X
CCB6	1	8:27 PM	X	X	X	X	X	X	X
L6DWTB	1	8:55 PM	X	X	X	X	X	X	X
L6DWTC	1	9:00 PM	X	X	X	X	X	X	X
L6DWTL	1	9:06 PM	X	X	X	X	X	X	X
L50XR 85-55	1	9:11 PM	X	X	X	X	X	X	X
L50XRP	5	9:17 PM	X	X	X	X	X	X	X
L50XT 85-01	1	9:22 PM	X	X	X	X	X	X	X
CCV1-7	1	9:28 PM	X	X	X	X	X	X	X
CCB7	1	9:33 PM	X	X	X	X	X	X	X
L50XW 85-02	1	9:39 PM	X	X	X	X	X	X	X
L50XX 85-04	1	9:44 PM	X	X	X	X	X	X	X
CCV1-8	1	10:34 PM	X	X	X	X	X	X	X
CCB8	1	10:39 PM	X	X	X	X	X	X	X

SEM

Sample List 9-6-10

No	Label	Type	Weight	Rack	Row	Col	Height
1	PERFORMANCE REPORT	Instrument Setup	1.000	1	1	1	155
2	STD1 MET4520-10 INT STD	Blank	1.000	0	1	1	155
3	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
4	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
5	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
6	ICB1	QC Sample	1.000	0	1	9	155
7	CRI MET4062-10	QC Sample	1.000	0	1	6	155
8	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
9	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
10	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
11	CCB1	QC Sample	1.000	0	1	9	155
12	L6D15B	Unknown	1.000	1	1	2	155
13	L6D15C	Unknown	1.000	1	1	3	155
14	L5X1V	Unknown	1.000	1	1	4	155
15	L5X1VP5	Unknown	1.000	1	1	5	155
16	L5X1VS	Unknown	1.000	1	1	6	155
17	L5X1VD	Unknown	1.000	1	1	7	155
18	L5X10	Unknown	1.000	1	1	8	155
19	L5X11	Unknown	1.000	1	1	9	155
20	L5X12	Unknown	1.000	1	1	10	155
21	L5X13	Unknown	1.000	1	1	11	155
22	CCV1-2	QC Sample	1.000	0	1	4	155
23	CCB2	QC Sample	1.000	0	1	9	155
24	L5X15	Unknown	1.000	1	1	12	155
25	L5X16	Unknown	1.000	1	2	1	155
26	L5X17	Unknown	1.000	1	2	2	155
27	L5X18	Unknown	1.000	1	2	3	155
28	L5X19	Unknown	1.000	1	2	4	155
29	L5X2A	Unknown	1.000	1	2	5	155
30	L5X2C	Unknown	1.000	1	2	6	155
31	L5X2D	Unknown	1.000	1	2	7	155
32	L5X2E	Unknown	1.000	1	2	8	155
33	L5X2F	Unknown	1.000	1	2	9	155
34	CCV1-3	QC Sample	1.000	0	1	4	155
35	CCB3	QC Sample	1.000	0	1	9	155
36	L5X2H	Unknown	1.000	1	2	10	155
37	L5X2J	Unknown	1.000	1	2	11	155
38	L5X2M	Unknown	1.000	1	2	12	155
39	L5X2P	Unknown	1.000	1	3	1	155
40	L5X2T	Unknown	1.000	1	3	2	155
41	L6D8QB	Unknown	1.000	1	3	3	155
42	L6D8QC	Unknown	1.000	1	3	4	155
43	L5X2W	Unknown	1.000	1	3	5	155
44	L5X2WP5	Unknown	1.000	1	3	6	155
45	L5X2WS	Unknown	1.000	1	3	7	155
46	CCV1-4	QC Sample	1.000	0	1	4	155
47	CCB4	QC Sample	1.000	0	1	9	155
48	L5X2WD	Unknown	1.000	1	3	8	155
49	L5X20	Unknown	1.000	1	3	9	155
50	L5X21	Unknown	1.000	1	3	10	155
51	L5X24	Unknown	1.000	1	3	11	155
52	L5X26	Unknown	1.000	1	3	12	155
53	L5X29	Unknown	1.000	1	4	1	155
54	L5X3A	Unknown	1.000	1	4	2	155
55	L5X3D	Unknown	1.000	1	4	3	155
56	L5X3F	Unknown	1.000	1	4	4	155
57	L5X3G	Unknown	1.000	1	4	5	155
58	CCV1-5	QC Sample	1.000	0	1	4	155
59	CCB5	QC Sample	1.000	0	1	9	155
60	L6D77B	Unknown	1.000	1	4	6	155
61	L6D77C	Unknown	1.000	1	4	7	155
62	L50XR 85-55	Unknown	1.000	1	4	8	155
63	L50XRP5	Unknown	1.000	1	4	9	155
64	L50XRS	Unknown	1.000	1	4	10	155
65	L50XRD	Unknown	1.000	1	4	11	155
66	L50XT 85-01	Unknown	1.000	1	4	12	155
67	L50XW 85-02	Unknown	1.000	1	5	1	155

Analysis 9/2

9/2/10 18:37

68	L50XX 85-04	Unknown	1.000	1	5	2	155
69	L50X0 83-55	Unknown	1.000	1	5	3	155
70	CCV1-6	QC Sample	1.000	0	1	4	155
71	CCB6	QC Sample	1.000	0	1	9	155
72	L50X1 83-01	Unknown	1.000	1	5	4	155
73	L50X2 83-02	Unknown	1.000	1	5	5	155
74	L50X3 83-04	Unknown	1.000	1	5	6	155
75	L50X4 84-55 except 50	Unknown	1.000	1	5	7	155
76	L50X5 84-01 except 50	Unknown	1.000	1	5	8	155
77	L50X6 84-02 except 50	Unknown	1.000	1	5	9	155
78	L50X7 Down 55	Unknown	1.000	1	5	10	155
79	L500A Down 01	Unknown	1.000	1	5	11	155
80	L500D Down 02	Unknown	1.000	1	5	12	155
81	L500E Down 4	Unknown	1.000	2	1	1	155
82	CCV1-7	QC Sample	1.000	0	1	4	155
83	CCB7	QC Sample	1.000	0	1	9	155

Cecilia J Rentfro 9-7-10

Sample List

Analysis 9/5

No	Label	Type	Weight	Rack	Row	Col	Height
1	STD1 MET4520-10 INT STD	Blank	1.000	0	1	1	155
2	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
3	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
4	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
5	ICB1	QC Sample	1.000	0	1	9	155
6	CRI MET4062-10	QC Sample	1.000	0	1	6	155
7	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
8	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
9	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
10	CCB1	QC Sample	1.000	0	1	9	155
11	L5X2W/10	Unknown	1.000	1	1	2	155
12	L5X2WP50	Unknown	1.000	1	1	3	155
13	L50X4/100 84-55 Sb, Pb	Unknown	1.000	1	1	4	155
14	L50X5 84-01 Sb.	Unknown	1.000	1	1	5	155
15	L50X6 84-02 Sb	Unknown	1.000	1	1	6	155
16	L6FJVB	Unknown	1.000	1	1	7	155
17	L6FJVC	Unknown	1.000	1	1	8	155
18	L5N14	Unknown	1.000	1	1	9	155
19	L5N14P5	Unknown	1.000	1	1	10	155
20	L5N14S	Unknown	1.000	1	1	11	155
21	CCV1-2	QC Sample	1.000	0	1	4	155
22	CCB2	QC Sample	1.000	0	1	9	155
23	L5N14D	Unknown	1.000	1	1	12	155
24	L537V	Unknown	1.000	1	2	1	155
25	L537W	Unknown	1.000	1	2	2	155
26	L5370	Unknown	1.000	1	2	3	155
27	L5371	Unknown	1.000	1	2	4	155
28	L5372	Unknown	1.000	1	2	5	155
29	L5374	Unknown	1.000	1	2	6	155
30	L5376	Unknown	1.000	1	2	7	155
31	L5377	Unknown	1.000	1	2	8	155
32	L6A4QCF	Unknown	1.000	1	2	9	155
33	CCV1-3	QC Sample	1.000	0	1	4	155
34	CCB3	QC Sample	1.000	0	1	9	155
35	L6A4QBF	Unknown	1.000	1	2	10	155
36	L5436F	Unknown	1.000	1	2	11	155
37	L5436P5F	Unknown	1.000	1	2	12	155
38	L5436SF	Unknown	1.000	1	3	1	155
39	L5436DF	Unknown	1.000	2	4	5	155
40	L544HF	Unknown	1.000	1	3	2	155
41	L544LF	Unknown	1.000	1	3	3	155
42	L545NF	Unknown	1.000	1	3	4	155
43	L545QF	Unknown	1.000	1	3	5	155
44	L5740F	Unknown	1.000	1	3	6	155
45	CCV1-4	QC Sample	1.000	0	1	4	155
46	CCB4	QC Sample	1.000	0	1	9	155
47	L5742F	Unknown	1.000	1	3	7	155
48	L5746F	Unknown	1.000	1	3	8	155
49	L5747F	Unknown	1.000	1	3	9	155
50	L5748F	Unknown	1.000	1	3	10	155
51	L575AF	Unknown	1.000	1	3	11	155
52	L575CF	Unknown	1.000	1	3	12	155
53	L575DF	Unknown	1.000	1	4	1	155
54	L575EF	Unknown	1.000	1	4	2	155
55	L575FF	Unknown	1.000	1	4	3	155
56	L575HF	Unknown	1.000	1	4	4	155
57	CCV1-5	QC Sample	1.000	0	1	4	155
58	CCB5	QC Sample	1.000	0	1	9	155
59	L575KF	Unknown	1.000	1	4	5	155
60	L58C0F	Unknown	1.000	1	4	6	155
61	L58C1F	Unknown	1.000	1	4	7	155
62	L6D4DB	Unknown	1.000	1	4	8	155
63	L6D4DC	Unknown	1.000	1	4	9	155
64	L5436	Unknown	1.000	1	4	10	155
65	L5436P5	Unknown	1.000	1	4	11	155
66	L5436S	Unknown	1.000	1	4	12	155
67	L5436D	Unknown	1.000	1	5	1	155

Tetra Tech Middle River, MD

Ratio for SEM/AVS

Lab Name: TESTAMERICA PITTSBURGH
Lot Number: C0H210447
Client Name: Tetra Tech NUS, Inc
Date Received: 8/21/10
Matrix: SOLID

Client Sample ID	Sample Number	Ratio
SD-85-SS	001	1.1073
SD-85-01	002	NA
SD-85-02	003	NA
SD-85-04	004	NA

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H210447
Matrix:	SOLID	**Date/Time Received:**	8/20/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0I010000072B	072 MB	L6DWC1AA	ND	umoles/g	0.50	9/1/2010 - 9/1/2010 14:11	0244072	

Tetra Tech Middle River, MD

Percent Solids

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 2540G
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H210447
Matrix:	SOLID	**Date/Time Received:**	8/21/2010 10:30:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
SD-85-SS	001 DUP	L50XR1A5	74.2	%	1.0	8/22/2010 - 8/23/2010 06:01	0234030	0.76 / 20

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H210447
Matrix:	SOLID	**Date/Time Received:**	8/21/2010 10:30:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
SD-85-SS	001 DUP	L50XR1A8	8020	mg/kg	2590	8/25/2010 - 8/26/2010 09:56	0236226	21 / 20 OK
BLK - C0H240000226B	226 MB	L52261AA	ND	mg/kg	2000	8/25/2010 - 8/26/2010 08:00	0236226	
BLK - C0I030000173B	173 MB	L6HR11AA	ND	mg/kg	1000	9/7/2010 - 9/8/2010 00:00	0246173	

Tetra Tech Middle River, MD

Acid Volatile Sulfide

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA AVS
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0I010000
Matrix:	SOLID	**Date/Time Received:**	8/20/2010 10:00:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
DUPLICATE CHECK	LCSD	L6DWC1AD	93	85 - 115	9/1/2010 - 9/1/2010 14:11	0244072	0.89 / 20
CHECK SAMPLE	LCS	L6DWC1AC	94	85 - 115	9/1/2010 - 9/1/2010 14:11	0244072	0.89 / 20

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0I030000
Matrix:	SOLID	**Date/Time Received:**	8/19/2010 10:30:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6HR11AC	89	75 - 125	9/7/2010 - 9/8/2010 00:00	0246173	6.7 / 20
DUPLICATE CHECK	LCSD	L52261AD	93	75 - 125	8/25/2010 - 8/26/2010 08:29	0236226	2.6 / 20
CHECK SAMPLE	LCS	L52261AC	95	75 - 125	8/25/2010 - 8/26/2010 08:14	0236226	2.6 / 20
DUPLICATE CHECK	LCSD	L6HR11AD	84	75 - 125	9/3/2010 - 9/8/2010 00:00	0246173	6.7 / 20
SD-85-SS	MS	L50XR1A6	86	75 - 125	8/24/2010 - 8/26/2010 09:41	0236226	6.0 / 20
SD-85-SS	MSD	L50XR1A7	91	75 - 125	8/24/2010 - 8/26/2010 09:27	0236226	6.0 / 20

Sample SD-85-01 Chromium rep result 13.8 mg/kg

$(184.5)\left(\frac{1000\,ml}{2.03}\right)\left(\frac{1}{.67}\right)\left(\frac{1}{1000}\right) = 13.77\ mg/kg$

L50XT 9/2/2010 6:57:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	78.056%	13.720	39.970	37.870	0.000	6104.000	10340.000	9892.000
2	18:59:06	80.011%	14.040	37.510	36.320	0.000	6175.000	10330.000	9913.000
3	18:59:49	80.979%	14.210	38.330	34.940	0.000	6146.000	10230.000	9904.000
x		79.682%	13.990	38.600	36.380	0.000	6142.000	10300.000	9903.000
σ		1.489%	0.248	1.251	1.464	0.000	35.820	58.370	10.380
%RSD		1.869	1.775	3.240	4.023	0.000	0.583	0.567	0.105

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	95110.000	2407.000	0.000	7657.000	9389.000	8721.000	70.251%	1015.000
2	18:59:06	95130.000	2409.000	0.000	7819.000	9834.000	8947.000	69.613%	1032.000
3	18:59:49	95380.000	2424.000	0.000	7800.000	9722.000	8982.000	70.610%	1007.000
x		95210.000	2413.000	0.000	7759.000	9648.000	8883.000	70.158%	1018.000
σ		151.200	8.935	0.000	88.370	231.200	141.300	0.505%	12.740
%RSD		0.159	0.370	0.000	1.139	2.396	1.591	0.720	1.251

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	317.200	181.700	2381.000	217200.000	216100.000	170.900	175.300	125.900
2	18:59:06	328.600	186.900	2417.000	222000.000	220600.000	172.900	177.200	125.600
3	18:59:49	322.200	184.900	2408.000	221000.000	220500.000	170.500	177.300	126.600
x		322.700	184.500	2402.000	220000.000	219100.000	171.400	176.600	126.000
σ		5.721	2.657	18.890	2524.000	2572.000	1.271	1.109	0.531
%RSD		1.773	1.440	0.786	1.147	1.174	0.741	0.628	0.421

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	127.200	458.000	461.200	33.740	2.806	7.432	0.000	122.700
2	18:59:06	126.300	463.700	466.500	33.350	2.725	7.298	0.000	124.100
3	18:59:49	127.500	462.200	467.300	32.850	3.381	6.417	0.000	123.200
x		127.000	461.300	465.000	33.310	2.971	7.049	0.000	123.300
σ		0.627	2.969	3.327	0.443	0.357	0.551	0.000	0.695
%RSD		0.494	0.644	0.715	1.331	12.030	7.819	0.000	0.563

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	0.000	17.670	17.570	73.548%	0.525	0.507	1.886	1.378
2	18:59:06	0.000	15.460	15.550	74.616%	0.587	0.483	1.821	1.403
3	18:59:49	0.000	14.650	14.070	74.962%	0.580	0.525	1.711	1.333
x		0.000	15.930	15.730	74.375%	0.564	0.505	1.806	1.371
σ		0.000	1.560	1.756	0.737%	0.034	0.021	0.089	0.035
%RSD		0.000	9.795	11.160	0.990	5.980	4.136	4.914	2.557

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	74.461%	17.970	1.502	1.436	277.800	275.400	90.885%	91.692%
2	18:59:06	75.309%	15.550	1.500	1.335	278.600	275.000	93.236%	93.713%
3	18:59:49	75.853%	15.010	1.390	1.375	276.700	274.400	93.472%	94.416%
x		75.208%	16.180	1.464	1.382	277.700	274.900	92.531%	93.274%
σ		0.702%	1.578	0.064	0.051	0.936	0.526	1.430%	1.415%
%RSD		0.933	9.754	4.395	3.685	0.337	0.192	1.546	1.517

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:23	1.642	1.742	96.460	93.590	95.940	92.335%
2	18:59:06	1.711	1.729	96.410	93.370	95.700	94.852%
3	18:59:49	1.651	1.685	96.450	93.500	95.540	95.734%
x		1.668	1.719	96.440	93.480	95.730	94.307%
σ		0.038	0.030	0.027	0.111	0.200	1.764%
%RSD		2.256	1.727	0.028	0.119	0.209	1.870

Chromium SEM rep result 0.61 umoles/gm

$\left(\frac{0.9434\,ug}{L}\right)\left(\frac{x250\,ml}{10\,g}\right)\left(\frac{1}{.748}\right)\left(\frac{1}{52.0}\right)\left(\frac{1g}{1x10^6\,ug}\right)\left(\frac{1x10^6\,umoles}{1\,mole}\right) = 0.606\ umoles/gm$

Method: METTRACE Sample Name: L50XR Operator: ACC
Run Time: 09/02/10 21:11:44
Comment: TESTAMERICA PITTSBURGH ICP METALS ANALYSIS - INST TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00232	88.214	.02133	.09502	.90376	.02287	317.99
SDev	.00025	.086	.00048	.00061	.00046	.00006	.47
%RSD	10.746	.09790	2.2545	.64484	.05122	.24079	.14842
#1	.00239	88.165	.02096	.09570	.90324	.02293	318.49
#2	.00204	88.164	.02187	.09451	.90394	.02286	317.56
#3	.00253	88.314	.02116	.09484	.90411	.02282	317.91
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	500.00	10.000	30.000	10.000	10.000	600.00
Low	-.00500	-.20000	-.01000	-.20000	-.20000	-.00400	-5.0000

Elem	CD	CO	CR	CU	FE	K_	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.28751	.13733	.94340	.22249	123.33	4.6656	109.35
SDev	.00073	.00028	.00146	.00056	.16	.0110	.15
%RSD	.25429	.20551	.15429	.25092	.13347	.23654	.13996
#1	.28824	.13760	.94417	.22215	123.48	4.6547	109.50
#2	.28678	.13735	.94172	.22220	123.15	4.6655	109.19
#3	.28752	.13704	.94430	.22314	123.35	4.6768	109.36
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	50.000	20.000	10.000	500.00	400.00	600.00
Low	-.00500	-.05000	-.00500	-.02500	-.10000	-5.0000	-5.0000

Elem	MN	MO	NA	NI	PB/1	PB/2	PB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.4237	-.00255	8.9563	.16921	.93899	.97465	.96278
SDev	.0091	.00046	.0530	.00037	.00244	.00387	.00231
%RSD	.12213	17.919	.59219	.21765	.26031	.39754	.23964
#1	7.4316	-.00203	8.9390	.16945	.94099	.97591	.96428
#2	7.4138	-.00290	8.9141	.16879	.93626	.97774	.96393
#3	7.4257	-.00271	9.0158	.16940	.93972	.97030	.96012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK	NOCHECK	LC Pass
High	20.000	20.000	400.00	100.00			5.0000
Low	-.01500	-.04000	-5.0000	-.04000			-.00300

Elem	SB/1	SB/2	SB	SE/1	SE/2	SE	SI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00503	.00004	.00170	.03178	.01663	.02168	H126.17
SDev	.00135	.00087	.00093	.00252	.00381	.00312	.11
%RSD	26.788	2277.1	54.442	7.9325	22.921	14.410	.08639
#1	.00353	-.00077	.00066	.03468	.01944	.02451	H126.19
#2	.00540	.00095	.00243	.03042	.01229	.01833	H126.05

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**OCTOBER 1, 2010**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- PAH/PCBs**
MIDDLE RIVER CENTER
FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) - C0H250417

SAMPLES: 8/Sediment/PAH/PCB

Bowleys Quarters-01	Bowleys Quarters-02	Bowleys Quarter-04
Bowleys Quarter-SS	Marshy Point-01	Marshy Point-02
Marshy Point-04	Marshy Point-SS	

Overview

The sample set for Middle River Center, SDG C0H250417, consists of eight (8) environmental sediment samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCBs).

The samples were collected on August 21, 2010 and analyzed by Test America. PAH analyses were conducted in accordance with SW-846 Method 8270C and PCBs Method 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial and continuing calibration results, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, matrix spike/ matrix spike duplicate recoveries, laboratory control standard recoveries, detection limits, compound quantitation and compound identification. Areas of concern with respect to data quality are listed below.

Major- None.

Minor

- The percent solids were less than 30% in samples Bowleys Quarter-SS and Marshy Point-SS. Positive and nondetected results were qualified as estimated (J) and (UJ), respectively.

Notes

The continuing calibration percent difference for indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene were greater than the 20% quality control limit but less than 50% on August 27, 2010 @ 5:56. No action was taken on the nondetected indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene results.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: The percent solids were less than 30% in samples Bowleys Quarter-SS and Marshy Point-SS.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	BOWLEYS QUARTERS-01			BOWLEYS QUARTERS-02			BOWLEYS QUARTERS-04			BOWLEYS QUARTERS-SS		
SDG: C0H250417	LAB_ID	C0H250417006			C0H250417007			C0H250417008			C0H250417005		
FRACTION: PAH	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.0			40.0			68.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		5.1	U		3.9	U		2.3	U		5.7	UJ	Y
ACENAPHTHYLENE		29	J	P	4.7	U		2.8	U		6.7	UJ	Y
ANTHRACENE		47	J	P	4	U		2.4	U		29	J	PY
BENZO(A)ANTHRACENE		70			5.1	U		3.1	U		53	J	PY
BENZO(A)PYRENE		74			4.1	U		2.4	U		49	J	PY
BENZO(B)FLUORANTHENE		110			6.5	U		3.8	U		96	J	Y
BENZO(G,H,I)PERYLENE		110			4.1	U		2.4	U		93	J	Y
BENZO(K)FLUORANTHENE		11	U		8.3	U		4.9	U		12	UJ	Y
CHRYSENE		63			4.9	U		2.9	U		68	J	Y
DIBENZO(A,H)ANTHRACENE		5.9	U		4.6	U		2.7	U		6.5	UJ	Y
FLUORANTHENE		200			4.4	U		2.6	U		140	J	Y
FLUORENE		51	J	P	5.4	U		3.2	U		23	J	PY
INDENO(1,2,3-CD)PYRENE		110			4.2	U		2.5	U		110	J	Y
NAPHTHALENE		110			3.5	U		2.1	U		51	J	PY
PHENANTHRENE		140			6.5	U		3.9	U		82	J	Y
PYRENE		130			4.2	U		2.5	U		100	J	Y

PROJ_NO: 02903	NSAMPLE	MARSHY POINT-01			MARSHY POINT-02			MARSHY POINT-04			MARSHY POINT-SS		
SDG: C0H250417	LAB_ID	C0H250417002			C0H250417003			C0H250417004			C0H250417001		
FRACTION: PAH	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			36.0			37.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		4.6	U		4.4	U		4.3	U		6	UJ	Y
ACENAPHTHYLENE		5.5	U		5.3	U		5.1	U		7.2	UJ	Y
ANTHRACENE		15	J	P	4.5	U		4.4	U		18	J	PY
BENZO(A)ANTHRACENE		20	J	P	5.8	U		5.6	U		24	J	PY
BENZO(A)PYRENE		4.8	U		4.6	U		4.5	U		6.3	UJ	Y
BENZO(B)FLUORANTHENE		7.6	U		7.2	U		7	U		30	J	PY
BENZO(G,H,I)PERYLENE		4.8	U		4.6	U		4.4	U		6.3	UJ	Y
BENZO(K)FLUORANTHENE		9.7	U		9.3	U		9	U		13	UJ	Y
CHRYSENE		21	J	P	5.5	U		5.3	U		32	J	PY
DIBENZO(A,H)ANTHRACENE		5.4	U		5.1	U		5	U		7	UJ	Y
FLUORANTHENE		61			4.9	U		4.8	U		67	J	Y
FLUORENE		13	J	P	6.1	U		5.9	U		8.3	UJ	Y
INDENO(1,2,3-CD)PYRENE		5	U		4.7	U		4.6	U		6.5	UJ	Y
NAPHTHALENE		42	J	P	4	U		3.8	U		50	J	PY
PHENANTHRENE		57			7.3	U		7.1	U		54	J	PY
PYRENE		37	J	P	4.7	U		4.5	U		49	J	PY

PROJ_NO: 02903	NSAMPLE	BOWLEYS QUARTERS-01			BOWLEYS QUARTERS-02			BOWLEYS QUARTERS-04			BOWLEYS QUARTERS-SS		
SDG: C0H250417	LAB_ID	C0H250417006			C0H250417007			C0H250417008			C0H250417005		
FRACTION: PEST/PCB	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	32.0			40.0			68.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.9	U		3.1	U		1.8	U		4.4	UJ	Y
AROCLOR-1221		5	U		3.9	U		2.3	U		5.6	UJ	Y
AROCLOR-1232		4.5	U		3.5	U		2.1	U		5	UJ	Y
AROCLOR-1242		4.3	U		3.4	U		2	U		4.8	UJ	Y
AROCLOR-1248		2.5	U		1.9	U		1.2	U		2.8	UJ	Y
AROCLOR-1254		3.8	U		2.9	U		1.7	U		4.2	UJ	Y
AROCLOR-1260		3.8	U		2.9	U		1.7	U		4.2	UJ	Y

PROJ_NO: 02903	NSAMPLE	MARSHY POINT-01			MARSHY POINT-02			MARSHY POINT-04			MARSHY POINT-SS		
SDG: C0H250417	LAB_ID	C0H250417002			C0H250417003			C0H250417004			C0H250417001		
FRACTION: PEST/PCB	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	34.0			36.0			37.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		3.6	U		3.4	U		3.3	U		4.7	UJ	Y
AROCLOR-1221		4.6	U		4.4	U		4.2	U		6	UJ	Y
AROCLOR-1232		4.1	U		3.9	U		3.7	U		5.4	UJ	Y
AROCLOR-1242		3.9	U		3.8	U		3.6	U		5.1	UJ	Y
AROCLOR-1248		2.3	U		2.2	U		2.1	U		3	UJ	Y
AROCLOR-1254		3.4	U		3.3	U		3.1	U		4.5	UJ	Y
AROCLOR-1260		3.4	U		3.3	U		3.1	U		4.5	UJ	Y

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-006	Work Order #...:	L53741AC	Matrix.....:	SOLID
Date Sampled...:	08/21/10 15:47	Date Received..:	08/24/10 10:15	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0237335	Analysis Time..:	14:50		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	68	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**110**	**53**	**ug/kg**	**4.6**
Acenaphthylene	**29 J**	**53**	**ug/kg**	**6.1**
Acenaphthene	ND	53	ug/kg	5.1
Fluorene	**51 J**	**53**	**ug/kg**	**7.0**
Phenanthrene	**140**	**53**	**ug/kg**	**8.4**
Anthracene	**47 J**	**53**	**ug/kg**	**5.2**
Fluoranthene	**200**	**53**	**ug/kg**	**5.7**
Pyrene	**130**	**53**	**ug/kg**	**5.4**
Benzo(a)anthracene	**70**	**53**	**ug/kg**	**6.6**
Chrysene	**63**	**53**	**ug/kg**	**6.3**
Benzo(b)fluoranthene	**110**	**53**	**ug/kg**	**8.3**
Benzo(k)fluoranthene	ND	53	ug/kg	11
Benzo(a)pyrene	**74**	**53**	**ug/kg**	**5.3**
Indeno(1,2,3-cd)pyrene	**110**	**53**	**ug/kg**	**5.5**
Dibenzo(a,h)anthracene	ND	53	ug/kg	5.9
Benzo(ghi)perylene	**110**	**53**	**ug/kg**	**5.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	104	(27 - 110)
Terphenyl-d14	93	(21 - 130)
2-Fluorobiphenyl	99	(28 - 108)
2-Fluorophenol	94	(28 - 107)
Phenol-d5	105	(30 - 112)
2,4,6-Tribromophenol	93	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-007	**Work Order #...:**	L53761AC	**Matrix.....:**	SOLID
Date Sampled...:	08/21/10 15:49	**Date Received..:**	08/24/10 10:15	**MS Run #.....:**	
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237335	**Analysis Time..:**	15:10		
Dilution Factor:	2.49	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	60	**Analyst ID.....:**	007062	**Instrument ID..:**	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	41	ug/kg	3.5
Acenaphthylene	ND	41	ug/kg	4.7
Acenaphthene	ND	41	ug/kg	3.9
Fluorene	ND	41	ug/kg	5.4
Phenanthrene	ND	41	ug/kg	6.5
Anthracene	ND	41	ug/kg	4.0
Fluoranthene	ND	41	ug/kg	4.4
Pyrene	ND	41	ug/kg	4.2
Benzo(a)anthracene	ND	41	ug/kg	5.1
Chrysene	ND	41	ug/kg	4.9
Benzo(b)fluoranthene	ND	41	ug/kg	6.5
Benzo(k)fluoranthene	ND	41	ug/kg	8.3
Benzo(a)pyrene	ND	41	ug/kg	4.1
Indeno(1,2,3-cd)pyrene	ND	41	ug/kg	4.2
Dibenzo(a,h)anthracene	ND	41	ug/kg	4.6
Benzo(ghi)perylene	ND	41	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(27 - 110)
Terphenyl-d14	67	(21 - 130)
2-Fluorobiphenyl	73	(28 - 108)
2-Fluorophenol	68	(28 - 107)
Phenol-d5	78	(30 - 112)
2,4,6-Tribromophenol	74	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-008	**Work Order #...:**	L53771AC	**Matrix.....:**	SOLID
Date Sampled...:	08/21/10 15:51	**Date Received..:**	08/24/10 10:15	**MS Run #.....:**	
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237335	**Analysis Time..:**	15:30		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	32	**Analyst ID.....:**	007062	**Instrument ID..:**	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	25	ug/kg	2.1
Acenaphthylene	ND	25	ug/kg	2.8
Acenaphthene	ND	25	ug/kg	2.3
Fluorene	ND	25	ug/kg	3.2
Phenanthrene	ND	25	ug/kg	3.9
Anthracene	ND	25	ug/kg	2.4
Fluoranthene	ND	25	ug/kg	2.6
Pyrene	ND	25	ug/kg	2.5
Benzo(a)anthracene	ND	25	ug/kg	3.1
Chrysene	ND	25	ug/kg	2.9
Benzo(b)fluoranthene	ND	25	ug/kg	3.8
Benzo(k)fluoranthene	ND	25	ug/kg	4.9
Benzo(a)pyrene	ND	25	ug/kg	2.4
Indeno(1,2,3-cd)pyrene	ND	25	ug/kg	2.5
Dibenzo(a,h)anthracene	ND	25	ug/kg	2.7
Benzo(ghi)perylene	ND	25	ug/kg	2.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	67	(27 - 110)
Terphenyl-d14	64	(21 - 130)
2-Fluorobiphenyl	69	(28 - 108)
2-Fluorophenol	62	(28 - 107)
Phenol-d5	73	(30 - 112)
2,4,6-Tribromophenol	72	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-005	Work Order #...:	L53721AD	Matrix.....:	SOLID
Date Sampled...:	08/21/10 15:45	Date Received..:	08/24/10 10:15	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0237335	Analysis Time..:	14:30		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	72	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**51 J**	**59**	**ug/kg**	**5.1**
Acenaphthylene	ND	59	ug/kg	6.7
Acenaphthene	ND	59	ug/kg	5.7
Fluorene	**23 J**	**59**	**ug/kg**	**7.8**
Phenanthrene	**82**	**59**	**ug/kg**	**9.4**
Anthracene	**29 J**	**59**	**ug/kg**	**5.8**
Fluoranthene	**140**	**59**	**ug/kg**	**6.3**
Pyrene	**100**	**59**	**ug/kg**	**6.0**
Benzo(a)anthracene	**53 J**	**59**	**ug/kg**	**7.4**
Chrysene	**68**	**59**	**ug/kg**	**7.0**
Benzo(b)fluoranthene	**96**	**59**	**ug/kg**	**9.3**
Benzo(k)fluoranthene	ND	59	ug/kg	12
Benzo(a)pyrene	**49 J**	**59**	**ug/kg**	**5.9**
Indeno(1,2,3-cd)pyrene	**110**	**59**	**ug/kg**	**6.1**
Dibenzo(a,h)anthracene	ND	59	ug/kg	6.5
Benzo(ghi)perylene	**93**	**59**	**ug/kg**	**5.9**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 110)
Terphenyl-d14	64	(21 - 130)
2-Fluorobiphenyl	67	(28 - 108)
2-Fluorophenol	61	(28 - 107)
Phenol-d5	69	(30 - 112)
2,4,6-Tribromophenol	69	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-002	Work Order #...:	L537W1AC	Matrix.....:	SOLID
Date Sampled...:	08/21/10 15:22	Date Received..:	08/24/10 10:15	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0237335	Analysis Time..:	13:31		
Dilution Factor:	2.48	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	66	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**42 J**	**48**	**ug/kg**	**4.1**
Acenaphthylene	ND	48	ug/kg	5.5
Acenaphthene	ND	48	ug/kg	4.6
Fluorene	**13 J**	**48**	**ug/kg**	**6.3**
Phenanthrene	**57**	**48**	**ug/kg**	**7.7**
Anthracene	**15 J**	**48**	**ug/kg**	**4.7**
Fluoranthene	**61**	**48**	**ug/kg**	**5.1**
Pyrene	**37 J**	**48**	**ug/kg**	**4.9**
Benzo(a)anthracene	**20 J**	**48**	**ug/kg**	**6.0**
Chrysene	**21 J**	**48**	**ug/kg**	**5.7**
Benzo(b)fluoranthene	ND	48	ug/kg	7.6
Benzo(k)fluoranthene	ND	48	ug/kg	9.7
Benzo(a)pyrene	ND	48	ug/kg	4.8
Indeno(1,2,3-cd)pyrene	ND	48	ug/kg	5.0
Dibenzo(a,h)anthracene	ND	48	ug/kg	5.4
Benzo(ghi)perylene	ND	48	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	82	(27 - 110)
Terphenyl-d14	70	(21 - 130)
2-Fluorobiphenyl	74	(28 - 108)
2-Fluorophenol	73	(28 - 107)
Phenol-d5	82	(30 - 112)
2,4,6-Tribromophenol	72	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-02

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-003	**Work Order #...:**	L53701AC	**Matrix.....:**	SOLID
Date Sampled...:	08/21/10 15:24	**Date Received..:**	08/24/10 10:15	**MS Run #.....:**	
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237335	**Analysis Time..:**	13:51		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	64	**Analyst ID.....:**	007062	**Instrument ID..:**	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	46	ug/kg	4.0
Acenaphthylene	ND	46	ug/kg	5.3
Acenaphthene	ND	46	ug/kg	4.4
Fluorene	ND	46	ug/kg	6.1
Phenanthrene	ND	46	ug/kg	7.3
Anthracene	ND	46	ug/kg	4.5
Fluoranthene	ND	46	ug/kg	4.9
Pyrene	ND	46	ug/kg	4.7
Benzo(a)anthracene	ND	46	ug/kg	5.8
Chrysene	ND	46	ug/kg	5.5
Benzo(b)fluoranthene	ND	46	ug/kg	7.2
Benzo(k)fluoranthene	ND	46	ug/kg	9.3
Benzo(a)pyrene	ND	46	ug/kg	4.6
Indeno(1,2,3-cd)pyrene	ND	46	ug/kg	4.7
Dibenzo(a,h)anthracene	ND	46	ug/kg	5.1
Benzo(ghi)perylene	ND	46	ug/kg	4.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(27 - 110)
Terphenyl-d14	60	(21 - 130)
2-Fluorobiphenyl	62	(28 - 108)
2-Fluorophenol	55	(28 - 107)
Phenol-d5	61	(30 - 112)
2,4,6-Tribromophenol	64	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-04

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-004	Work Order #...:	L53711AC	Matrix.....:	SOLID
Date Sampled...:	08/21/10 15:26	Date Received..:	08/24/10 10:15	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	08/26/10		
Prep Batch #...:	0237335	Analysis Time..:	14:10		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	45	ug/kg	3.8
Acenaphthylene	ND	45	ug/kg	5.1
Acenaphthene	ND	45	ug/kg	4.3
Fluorene	ND	45	ug/kg	5.9
Phenanthrene	ND	45	ug/kg	7.1
Anthracene	ND	45	ug/kg	4.4
Fluoranthene	ND	45	ug/kg	4.8
Pyrene	ND	45	ug/kg	4.5
Benzo(a)anthracene	ND	45	ug/kg	5.6
Chrysene	ND	45	ug/kg	5.3
Benzo(b)fluoranthene	ND	45	ug/kg	7.0
Benzo(k)fluoranthene	ND	45	ug/kg	9.0
Benzo(a)pyrene	ND	45	ug/kg	4.5
Indeno(1,2,3-cd)pyrene	ND	45	ug/kg	4.6
Dibenzo(a,h)anthracene	ND	45	ug/kg	5.0
Benzo(ghi)perylene	ND	45	ug/kg	4.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(27 - 110)
Terphenyl-d14	66	(21 - 130)
2-Fluorobiphenyl	71	(28 - 108)
2-Fluorophenol	69	(28 - 107)
Phenol-d5	78	(30 - 112)
2,4,6-Tribromophenol	69	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-SS

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-001	Work Order #...:	L537V1AD	Matrix.....:	SOLID
Date Sampled...:	08/21/10 15:20	Date Received..:	08/24/10 10:15	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	08/27/10		
Prep Batch #...:	0237335	Analysis Time..:	14:14		
Dilution Factor:	2.5	Initial Wgt/Vol:	30 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	73	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**50 J**	**63**	**ug/kg**	**5.4**
Acenaphthylene	ND	63	ug/kg	7.2
Acenaphthene	ND	63	ug/kg	6.0
Fluorene	ND	63	ug/kg	8.3
Phenanthrene	**54 J**	**63**	**ug/kg**	**10**
Anthracene	**18 J**	**63**	**ug/kg**	**6.1**
Fluoranthene	**67**	**63**	**ug/kg**	**6.7**
Pyrene	**49 J**	**63**	**ug/kg**	**6.4**
Benzo(a)anthracene	**24 J**	**63**	**ug/kg**	**7.9**
Chrysene	**32 J**	**63**	**ug/kg**	**7.5**
Benzo(b)fluoranthene	**30 J**	**63**	**ug/kg**	**9.9**
Benzo(k)fluoranthene	ND	63	ug/kg	13
Benzo(a)pyrene	ND	63	ug/kg	6.3
Indeno(1,2,3-cd)pyrene	ND	63	ug/kg	6.5
Dibenzo(a,h)anthracene	ND	63	ug/kg	7.0
Benzo(ghi)perylene	ND	63	ug/kg	6.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(27 - 110)
Terphenyl-d14	71	(21 - 130)
2-Fluorobiphenyl	78	(28 - 108)
2-Fluorophenol	71	(28 - 107)
Phenol-d5	79	(30 - 112)
2,4,6-Tribromophenol	68	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-01

GC Semivolatiles

Lot-Sample #...:	C0H250417-006	Work Order #...:	L53741AD	Matrix.....:	SOLID
Date Sampled...:	08/21/10	Date Received...:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date...:	09/03/10		
Prep Batch #...:	0237336	Analysis Time...:	01:56		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol...:	10 mL
% Moisture.....:	68	Analyst ID.....:	402360	Instrument ID...:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	26	ug/kg	3.9
Aroclor 1221	ND	26	ug/kg	5.0
Aroclor 1232	ND	26	ug/kg	4.5
Aroclor 1242	ND	26	ug/kg	4.3
Aroclor 1248	ND	26	ug/kg	2.5
Aroclor 1254	ND	26	ug/kg	3.8
Aroclor 1260	ND	26	ug/kg	3.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 140)
Decachlorobiphenyl	84	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-02

GC Semivolatiles

Lot-Sample #...:	C0H250417-007	Work Order #...:	L53761AD	Matrix.....:	SOLID
Date Sampled....:	08/21/10	Date Received...:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date...:	09/03/10		
Prep Batch #...:	0237336	Analysis Time...:	02:17		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol...:	10 mL
% Moisture.....:	60	Analyst ID.....:	402360	Instrument ID...:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	21	ug/kg	3.1
Aroclor 1221	ND	21	ug/kg	3.9
Aroclor 1232	ND	21	ug/kg	3.5
Aroclor 1242	ND	21	ug/kg	3.4
Aroclor 1248	ND	21	ug/kg	1.9
Aroclor 1254	ND	21	ug/kg	2.9
Aroclor 1260	ND	21	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	103	(35 - 140)
Decachlorobiphenyl	88	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-04

GC Semivolatiles

Lot-Sample #...:	C0H250417-008	Work Order #...:	L53771AD	Matrix.....:	SOLID
Date Sampled...:	08/21/10	Date Received..:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	09/03/10		
Prep Batch #...:	0237336	Analysis Time..:	02:37	Final Wgt/Vol...:	10 mL
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Instrument ID...:	S/T
% Moisture.....:	32	Analyst ID.....:	402360		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	12	ug/kg	1.8
Aroclor 1221	ND	12	ug/kg	2.3
Aroclor 1232	ND	12	ug/kg	2.1
Aroclor 1242	ND	12	ug/kg	2.0
Aroclor 1248	ND	12	ug/kg	1.2
Aroclor 1254	ND	12	ug/kg	1.7
Aroclor 1260	ND	12	ug/kg	1.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 140)
Decachlorobiphenyl	86	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-SS

GC Semivolatiles

Lot-Sample #...:	C0H250417-005	Work Order #...:	L53721AE	Matrix.....:	SOLID
Date Sampled....:	08/21/10	Date Received..:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date..:	09/03/10		
Prep Batch #....:	0237336	Analysis Time..:	01:36		
Dilution Factor:	0.5	Initial Wgt/Vol:	15.1 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	72	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	29	ug/kg	4.4
Aroclor 1221	ND	29	ug/kg	5.6
Aroclor 1232	ND	29	ug/kg	5.0
Aroclor 1242	ND	29	ug/kg	4.8
Aroclor 1248	ND	29	ug/kg	2.8
Aroclor 1254	ND	29	ug/kg	4.2
Aroclor 1260	ND	29	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 140)
Decachlorobiphenyl	82	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-01

GC Semivolatiles

Lot-Sample #....:	C0H250417-002	Work Order #....:	L537W1AD	Matrix.....:	SOLID
Date Sampled....:	08/21/10	Date Received...:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date...:	09/03/10		
Prep Batch #....:	0237336	Analysis Time...:	00:35		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol...:	10 mL
% Moisture.....:	66	Analyst ID.....:	402360	Instrument ID...:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	24	ug/kg	3.6
Aroclor 1221	ND	24	ug/kg	4.6
Aroclor 1232	ND	24	ug/kg	4.1
Aroclor 1242	ND	24	ug/kg	3.9
Aroclor 1248	ND	24	ug/kg	2.3
Aroclor 1254	ND	24	ug/kg	3.4
Aroclor 1260	ND	24	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 140)
Decachlorobiphenyl	88	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-02

GC Semivolatiles

Lot-Sample #....:	C0H250417-003	Work Order #....:	L53701AD	Matrix.....:	SOLID
Date Sampled....:	08/21/10	Date Received...:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date...:	09/03/10		
Prep Batch #....:	0237336	Analysis Time...:	00:55		
Dilution Factor:	0.5	Initial Wgt/Vol:	15 g	Final Wgt/Vol...:	10 mL
% Moisture.....:	64	Analyst ID.....:	402360	Instrument ID...:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	23	ug/kg	3.4
Aroclor 1221	ND	23	ug/kg	4.4
Aroclor 1232	ND	23	ug/kg	3.9
Aroclor 1242	ND	23	ug/kg	3.8
Aroclor 1248	ND	23	ug/kg	2.2
Aroclor 1254	ND	23	ug/kg	3.3
Aroclor 1260	ND	23	ug/kg	3.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 140)
Decachlorobiphenyl	83	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-04

GC Semivolatiles

Lot-Sample #....:	C0H250417-004	Work Order #....:	L53711AD	Matrix.....:	SOLID
Date Sampled....:	08/21/10	Date Received...:	08/24/10	MS Run #.....:	
Prep Date.....:	08/25/10	Analysis Date...:	09/03/10		
Prep Batch #....:	0237336	Analysis Time...:	01:16		
Dilution Factor:	0.49	Initial Wgt/Vol:	15.2 g	Final Wgt/Vol...:	10 mL
% Moisture.....:	63	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	22	ug/kg	3.3
Aroclor 1221	ND	22	ug/kg	4.2
Aroclor 1232	ND	22	ug/kg	3.7
Aroclor 1242	ND	22	ug/kg	3.6
Aroclor 1248	ND	22	ug/kg	2.1
Aroclor 1254	ND	22	ug/kg	3.1
Aroclor 1260	ND	22	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 140)
Decachlorobiphenyl	85	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-SS

GC Semivolatiles

Lot-Sample #....: C0H250417-001	Work Order #....: L537V1AE	Matrix.....: SOLID
Date Sampled....: 08/21/10	Date Received...: 08/24/10	MS Run #.....:
Prep Date.....: 08/25/10	Analysis Date...: 09/03/10	
Prep Batch #....: 0237336	Analysis Time...: 00:14	
Dilution Factor: 0.5	Initial Wgt/Vol: 15 g	Final Wgt/Vol...: 10 mL
% Moisture.....: 73	Analyst ID.....: 402360	Instrument ID...: S/T
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	31	ug/kg	4.7
Aroclor 1221	ND	31	ug/kg	6.0
Aroclor 1232	ND	31	ug/kg	5.4
Aroclor 1242	ND	31	ug/kg	5.1
Aroclor 1248	ND	31	ug/kg	3.0
Aroclor 1254	ND	31	ug/kg	4.5
Aroclor 1260	ND	31	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107	(35 - 140)
Decachlorobiphenyl	92	(35 - 140)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Appendix C

Support Documentation

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H250417

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 24, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, several samples were analyzed at a dilution.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

Metals:
Several samples were over the instruments linear range for SEM zinc and required a dilution.

The serial dilution of sample SD-102-SS (total) was outside of the percent difference control limits for silver, beryllium, and antimony. The results were flagged with an "E" qualifier.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spike and matrix spike duplicate of sample SD-92-SS recovered outside of the control limits for antimony and lead.

The matrix spike and matrix spike duplicate of sample SD-102-SS recovered outside of the control limits for antimony.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H250417

Metals (cont):
The matrix spike of sample SS-102-SS recovered outside of the control limits for chromium and zinc.

For the matrix spike and matrix spike duplicate of sample SD-102-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

COH250417

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Tetra Tech	Project Manager: Mike Martin	Date: 8/21/10	Chain of Custody Number: 154236
Address: 20251 Century Blvd. Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3050	Lab Number:	Page 1 of 1
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Appiavage	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): MCR Sed. Sampling, Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	PP metals	PAHs	PCBs	TOC	Special Instructions/ Conditions of Receipt
Marshy Point-SS	8/21/10	1520			X		X						X	X	X	X	
Marshy Point-01		1522											X	X	X		
Marshy Point-02		1524											X	X	X		
Marshy Point-04		1526											X	X	X		
Bowley's Quarters-SS		1545											X	X	X	X	
Bowley's Quarters-01		1547											X	X	X		
Bowley's Quarters-02	↓	1549											X	X	X		
Bowley's Quarters-04	8/21/10	1551			X		X						X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date: 8/23/10	Time: 1530	1. Received By	Date: 8/23/10	Time: 1530
2. Relinquished By	Date: 8/23/10	Time: 1630	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/24/10	Time: 1015

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

13

(1 - 141)

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech NUS Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/24/10

Coolers Opened and Unpacked on: 8/25/10 By: PRF (Signature)

TestAmerica Pittsburgh Lot Number: COH250417

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?			✓
9.	Were all bottles sealed in separate plastic bags?	✓		
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?			✓
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: FEDEX UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

Cooler Receipt Form

TestAmerica Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH≥12	OG TPHC PH<2	PHEN PH<2	SULF PH≥12	TOC PH<2	TOX PH<2	VOA P/UP	brass PH<2			

(1) "NUT" could include sample bottles for: ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	4.6°	9
2	4.1°	4
3	3.8°	9

Sample	Lot Number**

*Acceptable Temperature Range: 4°C ± 2°C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

METHODS SUMMARY

C0H250417

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H250417

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L537V	001	MARSHY POINT-SS	08/21/10	15:20
L537W	002	MARSHY POINT-01	08/21/10	15:22
L5370	003	MARSHY POINT-02	08/21/10	15:24
L5371	004	MARSHY POINT-04	08/21/10	15:26
L5372	005	BOWLEYS QUARTERS-SS	08/21/10	15:45
L5374	006	BOWLEYS QUARTERS-01	08/21/10	15:47
L5376	007	BOWLEYS QUARTERS-02	08/21/10	15:49
L5377	008	BOWLEYS QUARTERS-04	08/21/10	15:51

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SDG C0H250417

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
M	MG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
TOC	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	08/31/2010	09/01/2010	10	1	11
TOC	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	08/31/2010	09/01/2010	10	1	11
SIM	UG/KG	BOWLEYS QUARTERS-S	C0H250417005	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-SS	C0H250417001	SUR	08/21/2010	08/25/2010	08/27/2010	4	2	6
SIM	UG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	08/25/2010	08/27/2010	4	2	6
SIM	UG/KG	MARSHY POINT-04	C0H250417004	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-02	C0H250417003	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417006	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417008	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417007	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	MARSHY POINT-01	C0H250417002	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
PCB	UG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13
PCB	UG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	08/25/2010	09/03/2010	4	9	13

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0813DF1 DFTPP Injection Date: 08/13/10

Instrument ID: 722 DFTPP Injection Time: 0531

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.6
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	2.76
441	Present, but less than mass 443	8.3
442	40.0 - 100.0% of mass 198	48.5
443	17.0 - 23.0% of mass 442	10.0 (20.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD2	SSTD2	F08130C2	08/13/10	0608
02	SSTD4	SSTD4	F08130C3	08/13/10	0629
03	SSTD10	SSTD10	F08130C4	08/13/10	0650
04	SSTD20	SSTD20	F08130C5	08/13/10	0710
05	SSTD40	SSTD40	F08130C6	08/13/10	0731
06	SSTD60	SSTD60	F08130C7	08/13/10	0752
07	SSTD80	SSTD80	F08130C8	08/13/10	0813
08	SSTD.4	SSTD.4	F08130C9	08/13/10	0833
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
51 Naphthalene	1.10269	1.08618	1.08403	1.08350	1.08384	1.03955						
	0.99767	0.98385					AVRG		1.05766		4.26789	
52 4-Chloroaniline	0.38925	0.38592	0.41569	0.41419	0.42872	0.41722						
	0.41156	0.42032					AVRG		0.41036		3.65070	
221 Caprolactam	+++++	0.07035	0.08206	0.08502	0.09636	0.09269						
	0.08174	0.09486					AVRG		0.08615		10.70160	
53 a,a-Dimethyl-phenethylamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
54 2,6-Dichlorophenol	0.27364	0.29280	0.30639	0.29342	0.30151	0.30174						
	0.30035	0.30572					AVRG		0.29694		3.58740	
55 Hexachloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
56 Hexachlorobutadiene	0.19771	0.19968	0.19559	0.20171	0.20800	0.20738						
	0.20524	0.20827					AVRG		0.20295		2.44617	

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
76 Dimethylphthalate	1.28704	1.23362	1.28226	1.25449	1.24854	1.28400						
	1.22647	1.22649					AVRG		1.25536		2.07191	
77 m-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
78 2,6-Dinitrotoluene	0.20774	0.23474	0.28842	0.28463	0.30209	0.30126						
	0.29777	0.31020					AVRG		0.27836		13.24025	
79 Acenaphthylene	1.51990	1.66239	1.72300	1.72107	1.72059	1.76238						
	1.67971	1.66383					AVRG		1.68161		4.39021	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	0.21885	0.27642	0.30757	0.30844	0.31292	0.33000						
	0.31502	0.33465					AVRG		0.30049		12.42710	
82 Acenaphthene	1.16162	1.15942	1.19765	1.18471	1.16034	1.20575						
	1.16139	1.16463					AVRG		1.17444		1.60260	

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
90 Zinophos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
91 2,3,5,6-Tetrachlorophenol	1893	11452	32279	63752	131436	244781						
	440826	549898					QUAD	0.06015	3.08544	-0.09866	0.99974	
92 2-Naphthylamine	4911	23832	47302	107555	187866	287361						
	401421	468448					QUAD	0.04383	1.55646	0.55338	0.99786	
93 Diethylphthalate	1.11505	1.18859	1.33059	1.25721	1.20435	1.21916						
	1.16207	1.19250					AVRG		1.20869		5.32078	
94 Fluorene	1.27641	1.30091	1.32166	1.30249	1.32078	1.39553						
	1.34378	1.35132					AVRG		1.32651		2.77359	
95 4-Chlorophenyl-phenylether	0.61028	0.60849	0.64260	0.64846	0.63932	0.68754						
	0.67633	0.69516					AVRG		0.65102		5.06321	
96 4-Nitroaniline	0.19402	0.29069	0.30558	0.30369	0.32343	0.33078						
	0.31208	0.31930					AVRG		0.29745		14.66833	

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
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Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
115 Phenanthrene	1.12791	1.12353	1.15165	1.15045	1.15488	1.11190						
	1.17256	1.13300					AVRG		1.14073		1.74637	
116 Anthracene	1.04804	1.13791	1.18867	1.17561	1.21249	1.16055						
	1.14286	1.09410					AVRG		1.14503		4.63162	
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.95652	1.03105	1.03947	1.02044	1.05215	1.01886						
	0.96425	0.99047					AVRG		1.00915		3.47433	
120 Di-n-Butylphthalate	1.03392	1.17914	1.24874	1.25819	1.34244	1.26949						
	1.24036	1.23563					AVRG		1.22599		7.32120	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

Test America Pittsburgh

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End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.01536	1.14862	1.14047	1.09907	1.18313	1.14698						
	1.09291	1.11490					AVRG		1.11768		4.54401	
124 Benzidine	2328	9886	34574	97253	179112	307693						
	484456	682853					QUAD	0.00840	3.17671	-0.00076	0.99889	
125 Pyrene	1.31593	1.33451	1.37368	1.36146	1.28464	1.25122						
	1.23822	1.16368					AVRG		1.29042		5.47434	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
135 3,3'-Dichlorobenzidine	0.30727	0.33735	0.36346	0.40115	0.41940	0.41856						
	0.42122	0.42615					AVRG		0.38682		11.69500	
136 Benzo(a)Anthracene	1.13091	1.10635	1.14343	1.13241	1.13667	1.11677						
	1.09331	1.08696					AVRG		1.11835		1.87535	
137 Chrysene	1.09063	1.10294	1.13267	1.16112	1.16230	1.12571						
	1.11104	1.07708					AVRG		1.12044		2.77111	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	0.62066	0.77968	0.80532	0.82390	0.85603	0.84347						
	0.85254	0.83865					AVRG		0.80253		9.69853	
140 Di-n-octylphthalate	1.17345	1.29869	1.39458	1.46405	1.49397	1.53895						
	1.51083	1.49902					AVRG		1.42169		8.90439	
141 Benzo(b)fluoranthene	1.16890	1.13652	1.29405	1.19298	1.27494	1.40242						
	1.28843	1.44649					AVRG		1.27559		8.55423	

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	60.0000 Level 7	80.0000 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
216 Dinocap 3	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	0.90255	0.98512	1.03941	1.08936	1.10207	1.12387	1.11027	1.12765	AVRG		1.06004		7.53306	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	8363	48521	110240	257850	597382	1130240	1754986	2457605	QUAD	0.06967	0.80308	-0.00381	0.99987	
150 Dibenz(a,h)anthracene	5706	37818	90997	208964	499792	947917	1487491	2133011	QUAD	0.07149	0.98253	-0.00999	0.99987	

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	6506	43950	102836	225588	526534	972719						
	1484860	2090048					QUAD	0.04777	0.93309	-0.00390	0.99984	
204 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
205 1-Methylnaphthalene	0.65042	0.68295	0.68135	0.67309	0.69042	0.67697						
	0.66289	0.67977					AVRG		0.67473		1.87604	
206 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
207 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
208 Dibenzo(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
209 Dibenz(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0826DF1 DFTPP Injection Date: 08/26/10

Instrument ID: 722 DFTPP Injection Time: 0422

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	42.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 1.0% of mass 198	2.71
441	Present, but less than mass 443	7.6
442	40.0 - 100.0% of mass 198	44.3
443	17.0 - 23.0% of mass 442	9.0 (20.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	F08260C1	08/26/10	0438
02	INTRA-LAB BL	L54X01AA	F0826021	08/26/10	1212
03	INTRA-LAB CH	L54X01AC	F0826022	08/26/10	1232
04	INTRA-LAB CH	L54X01AD	F0826023	08/26/10	1252
05	MARSHY POINT	L537W1AC	F0826025	08/26/10	1331
06	MARSHY POINT	L53701AC	F0826026	08/26/10	1351
07	MARSHY POINT	L53711AC	F0826027	08/26/10	1410
08	BOWLEYS QUAR	L53721AD	F0826028	08/26/10	1430
09	BOWLEYS QUAR	L53741AC	F0826029	08/26/10	1450
10	BOWLEYS QUAR	L53761AC	F0826030	08/26/10	1510
11	BOWLEYS QUAR	L53771AC	F0826031	08/26/10	1530
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08260C1.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082610.b\LL.m

Injection Date: 26-AUG-2010 04:38
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	0.29106	0.21937	0.21937	0.010	24.63111	25.00000	Averaged	
220 Benzaldehyde	4.00000	3.56440	0.70827	0.010	10.88989	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.74398	0.86253	0.86253	0.010	-15.93540	25.00000	Averaged	
9 Pyridine	1.27436	1.34569	1.34569	0.010	-5.59670	25.00000	Averaged	
16 Methyl methanesulfonate	0.68235	0.66477	0.66477	0.010	2.57575	25.00000	Averaged	
21 Aniline	1.70284	1.71727	1.71727	0.010	-0.84754	25.00000	Averaged	
22 Phenol	1.79600	1.80739	1.80739	0.010	-0.63423	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.28128	1.41426	1.41426	0.010	-10.37810	25.00000	Averaged	
24 2-Chlorophenol	1.42311	1.49243	1.49243	0.010	-4.87104	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.63940	1.68362	1.68362	0.010	-2.69690	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.65413	1.75605	1.75605	0.010	-6.16125	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.57008	1.67213	1.67213	0.010	-6.49975	25.00000	Averaged	
227 Indene	2.43306	2.57225	2.57225	0.010	-5.72072	25.00000	Averaged	
29 Benzyl Alcohol	0.82797	0.56667	0.56667	0.010	31.55926	25.00000	Averaged	<-
30 2-Methylphenol	1.24095	1.21947	1.21947	0.010	1.73092	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.24125	1.34229	1.34229	0.010	-8.13992	25.00000	Averaged	
37 Acetophenone	1.87656	1.88629	1.88629	0.010	-0.51864	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95005	0.99657	0.99657	0.050	-4.89604	25.00000	Averaged	
192 4-Methylphenol	1.27846	1.28038	1.28038	0.010	-0.15078	25.00000	Averaged	
34 Hexachloroethane	0.63096	0.70117	0.70117	0.010	-11.12688	25.00000	Averaged	
35 Nitrobenzene	0.39916	0.43613	0.43613	0.010	-9.26093	25.00000	Averaged	
36 N-Nitrosopyrrolidine	0.59099	0.55677	0.55677	0.010	5.78933	25.00000	Averaged	
41 Isophorone	0.64436	0.68903	0.68903	0.010	-6.93214	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.20858	0.20858	0.010	-4.31868	20.00000	Averaged	
43 2,4-Dimethylphenol	0.35681	0.39223	0.39223	0.010	-9.92506	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.39803	0.40306	0.40306	0.010	-1.26554	25.00000	Averaged	
48 2,4-Dichlorophenol	0.29499	0.29652	0.29652	0.010	-0.51944	20.00000	Averaged	
49 Benzoic Acid	10.00000	15.68866	0.06081	0.010	-56.88664	25.00000	Quadratic	<-
50 1,2,4-Trichlorobenzene	0.34075	0.34770	0.34770	0.010	-2.03945	25.00000	Averaged	
51 Naphthalene	1.05766	1.10688	1.10688	0.010	-4.65286	25.00000	Averaged	
52 4-Chloroaniline	0.41036	0.40903	0.40903	0.010	0.32275	25.00000	Averaged	
54 2,6-Dichlorophenol	0.29694	0.29055	0.29055	0.010	2.15364	25.00000	Averaged	
56 Hexachlorobutadiene	0.20295	0.20387	0.20387	0.010	-0.45700	20.00000	Averaged	
221 Caprolactam	0.08615	0.09906	0.09906	0.010	-14.98407	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.29657	0.31279	0.31279	0.010	-5.47027	20.00000	Averaged	
62 2-Methylnaphthalene	0.70006	0.69632	0.69632	0.010	0.53326	25.00000	Averaged	
205 1-Methylnaphthalene	0.67473	0.69046	0.69046	0.010	-2.33137	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	3.54839	0.24775	0.050	11.29021	25.00000	Quadratic	
65 1,2,4,5-Tetrachlorobenzene	0.52207	0.59800	0.59800	0.010	-14.54542	25.00000	Averaged	
66 2,4,6-Trichlorophenol	0.37985	0.36771	0.36771	0.010	3.19543	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.38378	0.40392	0.40392	0.010	-5.24635	25.00000	Averaged	
222 1,1'-Biphenyl	1.51728	1.62512	1.62512	0.010	-7.10750	25.00000	Averaged	

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i Injection Date: 26-AUG-2010 04:38
Lab File ID: F08260C1.D Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Analysis Type: Init. Cal. Times: 06:08 02:51
Lab Sample ID: sstd4 Quant Type: ISTD
Method: \\PITSVR06\d\chem\722.i\082610.b\LL.m

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
70 2-Chloronaphthalene	1.18811	1.24632	1.24632	0.010	-4.89920	25.00000	Averaged	
73 2-Nitroaniline	0.32323	0.36796	0.36796	0.010	-13.83895	25.00000	Averaged	
76 Dimethylphthalate	1.25536	1.26783	1.26783	0.010	-0.99329	25.00000	Averaged	
78 2,6-Dinitrotoluene	0.27836	0.28086	0.28086	0.010	-0.90048	25.00000	Averaged	
79 Acenaphthylene	1.68161	1.80399	1.80399	0.010	-7.27728	25.00000	Averaged	
81 3-Nitroaniline	0.30049	0.32137	0.32137	0.010	-6.94954	25.00000	Averaged	
82 Acenaphthene	1.17444	1.21224	1.21224	0.010	-3.21873	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	11.21070	0.08132	0.050	-12.10695	25.00000	Quadratic	
85 4-Nitrophenol	0.18122	0.19313	0.19313	0.050	-6.57064	25.00000	Averaged	
86 Dibenzofuran	1.61951	1.66657	1.66657	0.010	-2.90584	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.36497	0.40016	0.40016	0.010	-9.64261	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	4.00000	4.36155	0.31601	0.010	-9.03866	25.00000	Quadratic	
88 2,3,4,6-Tetrachlorophenol	0.30399	0.32989	0.32989	0.010	-8.52191	25.00000	Averaged	
92 2-Naphthylamine	4.00000	2.84497	0.37557	0.010	28.87567	25.00000	Quadratic	<-
93 Diethylphthalate	1.20869	1.33234	1.33234	0.010	-10.22975	25.00000	Averaged	
94 Fluorene	1.32661	1.33120	1.33120	0.010	-0.34613	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.65102	0.65158	0.65158	0.010	-0.08558	25.00000	Averaged	
96 4-Nitroaniline	0.29745	0.33642	0.33642	0.010	-13.10294	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	10.00000	9.68527	0.11221	0.010	3.14732	25.00000	Quadratic	
99 N-Nitrosodiphenylamine	0.58848	0.59104	0.59104	0.010	-0.43614	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.88846	0.91987	0.91987	0.010	-3.53610	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.23031	0.22244	0.22244	0.010	3.41999	25.00000	Averaged	
107 Hexachlorobenzene	0.22539	0.21234	0.21234	0.010	5.78785	25.00000	Averaged	
223 Atrazine	0.11077	0.07679	0.07679	0.010	30.67644	25.00000	Averaged	<-
111 Pentachlorophenol	10.00000	11.11779	0.14215	0.025	-11.17794	20.00000	Quadratic	
115 Phenanthrene	1.14073	1.17190	1.17190	0.010	-2.73188	25.00000	Averaged	
116 Anthracene	1.14503	1.21723	1.21723	0.010	-6.30580	25.00000	Averaged	
119 Carbazole	1.00915	1.11806	1.11806	0.010	-10.79255	25.00000	Averaged	
120 Di-n-Butylphthalate	1.22599	1.36258	1.36258	0.010	-11.14179	25.00000	Averaged	
123 Fluoranthene	1.11768	1.25034	1.25034	0.010	-11.86867	20.00000	Averaged	
124 Benzidine	++++	++++	0.00000	0.010	++++	25.00000	Quadratic	<-
125 Pyrene	1.29042	1.21927	1.21927	0.010	5.51326	25.00000	Averaged	
131 Butylbenzylphthalate	0.57769	0.47445	0.47445	0.010	17.87082	25.00000	Averaged	
135 3,3'-Dichlorobenzidine	0.38682	0.41379	0.41379	0.010	-6.97092	25.00000	Averaged	
136 Benzo(a)Anthracene	1.11835	1.23532	1.23532	0.010	-10.45883	25.00000	Averaged	
137 Chrysene	1.12044	1.15024	1.15024	0.010	-2.66007	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.80253	0.80236	0.80236	0.010	0.02174	25.00000	Averaged	
140 Di-n-octylphthalate	1.42169	1.31458	1.31458	0.010	7.53425	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27559	1.22384	1.22384	0.010	4.05695	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.35972	1.40863	1.40863	0.010	-3.59768	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.59548	0.56091	0.56091	0.010	5.80670	25.00000	Averaged	
146 Benzo(a)pyrene	1.06004	1.04929	1.04929	0.010	1.01428	20.00000	Averaged	

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08260C1.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082610.b\LL.m

Injection Date: 26-AUG-2010 04:38
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
149 Indeno(1,2,3-cd)pyrene	4.00000	4.29535	1.16687	0.010	-7.38363	25.00000	Quadratic
150 Dibenz(a,h)anthracene	4.00000	4.26805	0.94500	0.010	-6.70124	25.00000	Quadratic
151 Benzo(g,h,i)perylene	4.00000	4.23123	1.03350	0.010	-5.78068	25.00000	Quadratic
$ 154 Nitrobenzene-d5	0.39484	0.40705	0.40705	0.010	-3.09210	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.33044	1.40491	1.40491	0.010	-5.59702	25.00000	Averaged
$ 156 Terphenyl-d14	0.85341	0.79757	0.79757	0.010	6.54310	25.00000	Averaged
$ 157 Phenol-d5	1.62031	1.72368	1.72368	0.010	-6.37926	25.00000	Averaged
$ 158 2-Fluorophenol	1.30430	1.27616	1.27616	0.010	2.15735	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	0.08713	0.08223	0.08223	0.010	5.61901	25.00000	Averaged
$ 186 2-Chlorophenol-d4	1.44482	1.61726	1.61726	0.010	-11.93504	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	1.00580	1.05695	1.05695	0.010	-5.08605	25.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L54X01AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: F0826021.

Lot Number: C0H250417

Date Analyzed: 08/26/10

Time Analyzed: 12:12

Matrix: SOLID

Date Extracted: 08/25/10

GC Column: HP5MS ID: .25

Extraction Method:

Instrument ID: 722

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	MARSHY POINT-SS	L537V1AD	F0827023.	08/27/10	14:14
02	MARSHY POINT-01	L537W1AC	F0826025.	08/26/10	13:31
03	MARSHY POINT-02	L53701AC	F0826026.	08/26/10	13:51
04	MARSHY POINT-04	L53711AC	F0826027.	08/26/10	14:10
05	BOWLEYS QUARTERS-SS	L53721AD	F0826028.	08/26/10	14:30
06	BOWLEYS QUARTERS-01	L53741AC	F0826029.	08/26/10	14:50
07	BOWLEYS QUARTERS-02	L53761AC	F0826030.	08/26/10	15:10
08	BOWLEYS QUARTERS-04	L53771AC	F0826031.	08/26/10	15:30
09	CHECK SAMPLE	L54X01AC C	F0826022.	08/26/10	12:32
10	DUPLICATE CHECK	L54X01AD L	F0826023.	08/26/10	12:52
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COMMENTS:

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0H250417	**Work Order #...:** L54X01AA	**Matrix.....:** SOLID
MB Lot-Sample #: C0H250000-335		
	Prep Date.....: 08/25/10	**Analysis Time..:** 12:12
Analysis Date..: 08/26/10	**Prep Batch #...:** 0237335	**Final Wgt/Vol..:** 0.5 mL
Dilution Factor: 0.5	**Initial Wgt/Vol:** 30 g	**Instrument ID..:** 722
	Analyst ID.....: 007062	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	3.4	ug/kg	SW846 8270C
Acenaphthylene	ND	3.4	ug/kg	SW846 8270C
Acenaphthene	ND	3.4	ug/kg	SW846 8270C
Fluorene	ND	3.4	ug/kg	SW846 8270C
Phenanthrene	ND	3.4	ug/kg	SW846 8270C
Anthracene	ND	3.4	ug/kg	SW846 8270C
Fluoranthene	ND	3.4	ug/kg	SW846 8270C
Pyrene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	3.4	ug/kg	SW846 8270C
Chrysene	ND	3.4	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	3.4	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	3.4	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	3.4	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	ND	3.4	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	3.4	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(27 - 110)
Terphenyl-d14	69	(21 - 130)
2-Fluorobiphenyl	66	(28 - 108)
2-Fluorophenol	66	(28 - 107)
Phenol-d5	74	(30 - 112)
2,4,6-Tribromophenol	68	(21 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.:

Lab File ID: F0827DF1 DFTPP Injection Date: 08/27/10

Instrument ID: 722 DFTPP Injection Time: 0523

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	54.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.4
365	Greater than 1.0% of mass 198	2.34
441	Present, but less than mass 443	8.3
442	40.0 - 100.0% of mass 198	45.9
443	17.0 - 23.0% of mass 442	9.3 (20.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	F08270C2	08/27/10	0556
02	MARSHY POINT	L537V1AD	F0827023	08/27/10	1414
03					
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Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08270C2.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082710.b\LL.m

Injection Date: 27-AUG-2010 05:56
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
198 1,4-Dioxane	0.29106	0.24495	0.24495	0.010	15.84170	25.00000	Averaged	
220 Benzaldehyde	4.00000	4.81626	1.12540	0.010	-20.40660	25.00000	Quadratic	
10 N-Nitrosodimethylamine	0.74398	0.80680	0.80680	0.010	-8.44421	25.00000	Averaged	
9 Pyridine	1.27436	1.25035	1.25035	0.010	1.88465	25.00000	Averaged	
16 Methyl methanesulfonate	0.68235	0.70428	0.70428	0.010	-3.21383	25.00000	Averaged	
21 Aniline	1.70284	2.08219	2.08219	0.010	-22.27707	25.00000	Averaged	
22 Phenol	1.79600	1.81576	1.81576	0.010	-1.10028	20.00000	Averaged	
23 bis(2-Chloroethyl)ether	1.28128	1.38499	1.38499	0.010	-8.09433	25.00000	Averaged	
24 2-Chlorophenol	1.42311	1.54546	1.54546	0.010	-8.59747	25.00000	Averaged	
26 1,3-Dichlorobenzene	1.63940	1.61999	1.61999	0.010	1.18441	25.00000	Averaged	
27 1,4-Dichlorobenzene	1.65413	1.67035	1.67035	0.010	-0.98066	20.00000	Averaged	
28 1,2-Dichlorobenzene	1.57008	1.58825	1.58825	0.010	-1.15683	25.00000	Averaged	
227 Indene	2.43306	2.50633	2.50633	0.010	-3.01148	25.00000	Averaged	
29 Benzyl Alcohol	0.82797	0.59053	0.59053	0.010	28.67724	25.00000	Averaged	<-
30 2-Methylphenol	1.24095	1.36668	1.36668	0.010	-10.13175	25.00000	Averaged	
31 2,2'-oxybis(1-Chloropropane	1.24125	1.29156	1.29156	0.010	-4.05278	25.00000	Averaged	
37 Acetophenone	1.87656	1.94089	1.94089	0.010	-3.42824	25.00000	Averaged	
32 N-Nitroso-di-n-propylamine	0.95005	1.01302	1.01302	0.050	-6.62824	25.00000	Averaged	
192 4-Methylphenol	1.27846	1.21576	1.21576	0.010	4.90402	25.00000	Averaged	
34 Hexachloroethane	0.63096	0.66749	0.66749	0.010	-5.78950	25.00000	Averaged	
35 Nitrobenzene	0.39916	0.42402	0.42402	0.010	-6.22645	25.00000	Averaged	
36 N-Nitrosopyrrolidine	0.59099	0.58790	0.58790	0.010	0.52303	25.00000	Averaged	
41 Isophorone	0.64436	0.66555	0.66555	0.010	-3.28931	25.00000	Averaged	
42 2-Nitrophenol	0.19994	0.19731	0.19731	0.010	1.31571	20.00000	Averaged	
43 2,4-Dimethylphenol	0.35681	0.36346	0.36346	0.010	-1.86400	25.00000	Averaged	
44 bis(2-Chloroethoxy)methane	0.39803	0.40503	0.40503	0.010	-1.76062	25.00000	Averaged	
48 2,4-Dichlorophenol	0.29499	0.29021	0.29021	0.010	1.61989	20.00000	Averaged	
49 Benzoic Acid	10.00000	2.28313	0.00886	0.010	77.16867	25.00000	Quadratic	<-
50 1,2,4-Trichlorobenzene	0.34075	0.35278	0.35278	0.010	-3.52804	25.00000	Averaged	
51 Naphthalene	1.05766	1.08223	1.08223	0.010	-2.32291	25.00000	Averaged	
52 4-Chloroaniline	0.41036	0.42177	0.42177	0.010	-2.78097	25.00000	Averaged	
54 2,6-Dichlorophenol	0.29694	0.29020	0.29020	0.010	2.27055	25.00000	Averaged	
56 Hexachlorobutadiene	0.20295	0.20511	0.20511	0.010	-1.06552	20.00000	Averaged	
221 Caprolactam	0.08615	0.06838	0.06838	0.010	20.63507	25.00000	Averaged	
59 4-Chloro-3-Methylphenol	0.29657	0.28975	0.28975	0.010	2.29803	20.00000	Averaged	
62 2-Methylnaphthalene	0.70006	0.71512	0.71512	0.010	-2.15218	25.00000	Averaged	
205 1-Methylnaphthalene	0.67473	0.71096	0.71096	0.010	-5.36918	25.00000	Averaged	
64 Hexachlorocyclopentadiene	4.00000	4.36913	0.32098	0.050	-9.22827	25.00000	Quadratic	
65 1,2,4,5-Tetrachlorobenzene	0.52207	0.59510	0.59510	0.010	-13.98975	25.00000	Averaged	
66 2,4,6-Trichlorophenol	0.37985	0.34490	0.34490	0.010	9.19978	20.00000	Averaged	
67 2,4,5-Trichlorophenol	0.38378	0.34546	0.34546	0.010	9.98518	25.00000	Averaged	
222 1,1'-Biphenyl	1.51728	1.52908	1.52908	0.010	-0.77770	25.00000	Averaged	

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08270C2.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082710.b\LL.m

Injection Date: 27-AUG-2010 05:56
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
70 2-Chloronaphthalene	1.18811	1.14480	1.14480	0.010	3.64559	25.00000	Averaged	
73 2-Nitroaniline	0.32323	0.30590	0.30590	0.010	5.36154	25.00000	Averaged	
76 Dimethylphthalate	1.25536	1.13140	1.13140	0.010	9.87432	25.00000	Averaged	
78 2,6-Dinitrotoluene	0.27836	0.26549	0.26549	0.010	4.62172	25.00000	Averaged	
79 Acenaphthylene	1.68161	1.78587	1.78587	0.010	-6.19969	25.00000	Averaged	
81 3-Nitroaniline	0.30049	0.28113	0.28113	0.010	6.44222	25.00000	Averaged	
82 Acenaphthene	1.17444	1.17956	1.17956	0.010	-0.43642	20.00000	Averaged	
83 2,4-Dinitrophenol	10.00000	9.18906	0.05333	0.050	8.10937	25.00000	Quadratic	
85 4-Nitrophenol	0.18122	0.16473	0.16473	0.050	9.10228	25.00000	Averaged	
86 Dibenzofuran	1.61951	1.60890	1.60890	0.010	0.65564	25.00000	Averaged	
87 2,4-Dinitrotoluene	0.36497	0.35246	0.35246	0.010	3.42707	25.00000	Averaged	
91 2,3,5,6-Tetrachlorophenol	4.00000	3.91739	0.27967	0.010	2.06528	25.00000	Quadratic	
88 2,3,4,6-Tetrachlorophenol	0.30399	0.29294	0.29294	0.010	3.63540	25.00000	Averaged	
92 2-Naphthylamine	4.00000	6.81243	0.89538	0.010	-70.31077	25.00000	Quadratic	<-
93 Diethylphthalate	1.20869	1.11821	1.11821	0.010	7.48552	25.00000	Averaged	
94 Fluorene	1.32661	1.28698	1.28698	0.010	2.98753	25.00000	Averaged	
95 4-Chlorophenyl-phenylether	0.65102	0.63128	0.63128	0.010	3.03337	25.00000	Averaged	
96 4-Nitroaniline	0.29745	0.27682	0.27682	0.010	6.93361	25.00000	Averaged	
98 4,6-Dinitro-2-methylphenol	10.00000	8.49917	0.09488	0.010	15.00831	25.00000	Quadratic	
99 N-Nitrosodiphenylamine	0.58848	0.55036	0.55036	0.010	6.47714	20.00000	Averaged	
100 1,2-Diphenylhydrazine	0.88846	0.92114	0.92114	0.010	-3.67907	25.00000	Averaged	
106 4-Bromophenyl-phenylether	0.23031	0.22775	0.22775	0.010	1.11109	25.00000	Averaged	
107 Hexachlorobenzene	0.22539	0.21779	0.21779	0.010	3.37397	25.00000	Averaged	
223 Atrazine	0.11077	0.19995	0.19995	0.010	-80.50974	25.00000	Averaged	<-
111 Pentachlorophenol	10.00000	10.35656	0.13039	0.025	-3.56559	20.00000	Quadratic	
115 Phenanthrene	1.14073	1.15904	1.15904	0.010	-1.60508	25.00000	Averaged	
116 Anthracene	1.14503	1.14570	1.14570	0.010	-0.05887	25.00000	Averaged	
119 Carbazole	1.00915	1.01177	1.01177	0.010	-0.25938	25.00000	Averaged	
120 Di-n-Butylphthalate	1.22599	1.09338	1.09338	0.010	10.81661	25.00000	Averaged	
123 Fluoranthene	1.11768	1.09159	1.09159	0.010	2.33442	20.00000	Averaged	
124 Benzidine	4.00000	3.74207	0.28921	0.010	6.44835	25.00000	Quadratic	
125 Pyrene	1.29042	1.33729	1.33729	0.010	-3.63219	25.00000	Averaged	
131 Butylbenzylphthalate	0.57769	0.40379	0.40379	0.010	30.10269	25.00000	Averaged	<-
135 3,3'-Dichlorobenzidine	0.38682	0.36693	0.36693	0.010	5.14179	25.00000	Averaged	
136 Benzo(a)Anthracene	1.11835	1.08646	1.08646	0.010	2.85152	25.00000	Averaged	
137 Chrysene	1.12044	1.12527	1.12527	0.010	-0.43110	25.00000	Averaged	
139 bis(2-ethylhexyl)Phthalate	0.80253	0.79393	0.79393	0.010	1.07133	25.00000	Averaged	
140 Di-n-octylphthalate	1.42169	1.33731	1.33731	0.010	5.93557	20.00000	Averaged	
141 Benzo(b)fluoranthene	1.27559	1.17639	1.17639	0.010	7.77689	25.00000	Averaged	
142 Benzo(k)fluoranthene	1.35972	1.26833	1.26833	0.010	6.72080	25.00000	Averaged	
143 7,12-dimethylbenz[a]anthrac	0.59548	0.55087	0.55087	0.010	7.49231	25.00000	Averaged	
146 Benzo(a)pyrene	1.06004	0.94485	0.94485	0.010	10.86656	20.00000	Averaged	

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 722.i
Lab File ID: F08270C2.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\PITSVR06\d\chem\722.i\082710.b\LL.m

Injection Date: 27-AUG-2010 05:56
Init. Cal. Date(s): 13-AUG-2010 18-AUG-2010
Init. Cal. Times: 06:08 02:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
149 Indeno(1,2,3-cd)pyrene	4.00000	5.12719	1.42743	0.010	-28.17986	25.00000	Quadratic	<-
150 Dibenz(a,h)anthracene	4.00000	4.95477	1.12159	0.010	-23.86920	25.00000	Quadratic	
151 Benzo(g,h,i)perylene	4.00000	4.67248	1.15227	0.010	-16.81196	25.00000	Quadratic	
$ 154 Nitrobenzene-d5	0.39484	0.39442	0.39442	0.010	0.10775	25.00000	Averaged	
$ 155 2-Fluorobiphenyl	1.33044	1.27306	1.27306	0.010	4.31301	25.00000	Averaged	
$ 156 Terphenyl-d14	0.85341	0.83456	0.83456	0.010	2.20912	25.00000	Averaged	
$ 157 Phenol-d5	1.62031	1.63349	1.63349	0.010	-0.81328	25.00000	Averaged	
$ 158 2-Fluorophenol	1.30430	1.13233	1.13233	0.010	13.18450	25.00000	Averaged	
$ 159 2,4,6-Tribromophenol	0.08713	0.07625	0.07625	0.010	12.48241	25.00000	Averaged	
$ 186 2-Chlorophenol-d4	1.44482	1.50598	1.50598	0.010	-4.23333	25.00000	Averaged	
$ 187 1,2-Dichlorobenzene-d4	1.00580	1.03553	1.03553	0.010	-2.95606	25.00000	Averaged	

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250417

Extraction: XXA4F4201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	MARSHY POINT-SS	81	71	78	71	79	68	00
02	MARSHY POINT-01	82	70	74	73	82	72	00
03	MARSHY POINT-02	68	60	62	55	61	64	00
04	MARSHY POINT-04	77	66	71	69	78	69	00
05	BOWLEYS QUARTERS-SS	70	64	67	61	69	69	00
06	BOWLEYS QUARTERS-01	104	93	99	94	105	93	00
07	BOWLEYS QUARTERS-02	78	67	73	68	78	74	00
08	BOWLEYS QUARTERS-04	67	64	69	62	73	72	00
09	METHOD BLK. L54X01AA	72	69	66	66	74	68	00
10	LCS L54X01AC	73	67	71	69	74	72	00
11	LCSD L54X01AD	76	72	75	72	77	78	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(27-110)
SRG02	= Terphenyl-d14	(21-130)
SRG03	= 2-Fluorobiphenyl	(28-108)
SRG04	= 2-Fluorophenol	(28-107)
SRG05	= Phenol-d5	(30-112)
SRG06	= 2,4,6-Tribromophenol	(21-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L54X01AC
BATCH: 0237335

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Phenol	333	215	65	39- 105	
2-Chlorophenol	333	236	71	40- 105	
1,4-Dichlorobenzene	333	222	67	41- 101	
N-Nitrosodi-n-propylamine	333	232	70	42- 108	
1,2,4-Trichlorobenzene	333	223	67	41- 105	
4-Chloro-3-methylphenol	333	226	68	43- 110	
Acenaphthene	333	221	66	42- 104	
4-Nitrophenol	333	239	72	27- 131	
2,4-Dinitrotoluene	333	259	78	48- 118	
Pentachlorophenol	333	214	64	18- 125	
Pyrene	333	199	60	39- 113	
4-Methylphenol	667	442	66	43- 107	
Hexachloroethane	333	229	69	40- 102	
Naphthalene	333	224	67	42- 104	
4-Bromophenyl phenyl ethe	333	205	61	43- 111	
Butyl benzyl phthalate	333	221	66	40- 117	

NOTES(S):

Values outside of QC limits

pike Recovery: 0 out of 16 outside limits

OMMENTS:

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L54X01AD
BATCH: 0237335

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
4-Bromophenyl phenyl ethe	333	242	73	43- 111	
Butyl benzyl phthalate	333	248	74	40- 117	
Phenol	333	233	70	39- 105	
2-Chlorophenol	333	256	77	40- 105	
1,4-Dichlorobenzene	333	246	74	41- 101	
N-Nitrosodi-n-propylamine	333	252	76	42- 108	
1,2,4-Trichlorobenzene	333	242	73	41- 105	
4-Chloro-3-methylphenol	333	259	78	43- 110	
Acenaphthene	333	242	72	42- 104	
4-Nitrophenol	333	280	84	27- 131	
2,4-Dinitrotoluene	333	286	86	48- 118	
Pentachlorophenol	333	239	72	18- 125	
Pyrene	333	224	67	39- 113	
4-Methylphenol	667	482	72	43- 107	
Hexachloroethane	333	251	75	40- 102	
Naphthalene	333	246	74	42- 104	

NOTES(S):

Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H250417

Lab File ID (Standard): F08260C1 Date Analyzed: 08/26/10

Instrument ID: 722 Time Analyzed: 0438

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	60610	4.25	222764	5.27	118257	6.65
	UPPER LIMIT	121220	4.75	445528	5.77	236514	7.15
	LOWER LIMIT	30305	3.75	111382	4.77	59129	6.15
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	68061	4.25	248933	5.26	141580	6.63
02	INTRA-LAB CH	63155	4.25	236737	5.26	131310	6.63
03	INTRA-LAB CH	73865	4.25	271782	5.26	150322	6.64
04	MARSHY POINT	51582	4.25	200970	5.26	121676	6.62
05	MARSHY POINT	59478	4.25	218336	5.25	129217	6.62
06	MARSHY POINT	57092	4.25	217852	5.26	128574	6.62
07	BOWLEYS QUAR	60333	4.25	227227	5.26	133725	6.63
08	BOWLEYS QUAR	55332	4.25	210441	5.26	126160	6.62
09	BOWLEYS QUAR	58801	4.25	229551	5.26	138876	6.63
10	BOWLEYS QUAR	59628	4.25	230844	5.26	135693	6.62
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H250417

Lab File ID (Standard): F08260C1 Date Analyzed: 08/26/10

Instrument ID: 722 Time Analyzed: 0438

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	183306	7.82	189828	10.17	190417	11.75
	UPPER LIMIT	366612	8.32	379656	10.67	380834	12.25
	LOWER LIMIT	91653	7.32	94914	9.67	95209	11.25
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	216313	7.79	216028	10.13	223111	11.70
02	INTRA-LAB CH	214265	7.79	226793	10.12	227369	11.69
03	INTRA-LAB CH	239705	7.79	256437	10.13	255592	11.70
04	MARSHY POINT	201339	7.78	232588	10.12	241951	11.69
05	MARSHY POINT	210685	7.78	246416	10.12	264150	11.69
06	MARSHY POINT	221078	7.78	254727	10.12	267384	11.69
07	BOWLEYS QUAR	224452	7.78	259950	10.11	279642	11.69
08	BOWLEYS QUAR	216528	7.78	252380	10.12	270188	11.68
09	BOWLEYS QUAR	238472	7.78	281407	10.13	294073	11.69
10	BOWLEYS QUAR	234205	7.78	288764	10.12	311702	11.68
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H250417

Lab File ID (Standard): F08270C2 Date Analyzed: 08/27/10

Instrument ID: 722 Time Analyzed: 0556

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	77313		4.25		291941		5.25		167689		6.62	
	UPPER LIMIT	154626		4.75		583882		5.75		335378		7.12	
	LOWER LIMIT	38657		3.75		145971		4.75		83845		6.12	
	CLIENT SAMPLE NO.												
01	MARSHY POINT	61642		4.25		220989		5.25		127044		6.60	
02													
03													
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: SDG No.: C0H250417

Lab File ID (Standard): F08270C2 Date Analyzed: 08/27/10

Instrument ID: 722 Time Analyzed: 0556

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	246151		7.77		206415		10.10		189116		11.67	
	UPPER LIMIT	492302		8.27		412830		10.60		378232		12.17	
	LOWER LIMIT	123076		7.27		103208		9.60		94558		11.17	
	CLIENT SAMPLE NO.												
01	MARSHY POINT	194092		7.75		209959		10.06		217692		11.63	
02													
03													
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	09/02/10	1444		
02		M1232	09/02/10	1504		
03		M1242	09/02/10	1525		
04		M1248	09/02/10	1545		
05		M1262	09/02/10	1605		
06		M1268	09/02/10	1626		
07		XL1660	09/02/10	1646		
08		L1660	09/02/10	1707		
09		ML1660	09/02/10	1727		
10		M1660	09/02/10	1747		
11		MH1660	09/02/10	1808		
12		H1660	09/02/10	1828		
13		2M2154	09/02/10	1909		
14		2M1232	09/02/10	1929		
15		2M1242	09/02/10	1950		
16		2M1248	09/02/10	2010		
17		2M1262	09/02/10	2030		
18		2M1268	09/02/10	2051		
19		2M1660	09/02/10	2111		
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

6E
HP6890 GC-14
MR-2

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900067.D
Level 2: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900068.D
Level 3: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900069.D
Level 4: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900070.D
Level 5: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900071.D
Level 6: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900072.D
Level 7: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900066.D

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
1 Aroclor-1221(1)	+++++	+++++	333554	+++++	+++++	+++++	+++++	333554	0.000	
(2)	+++++	+++++	213892	+++++	+++++	+++++	+++++	213892	0.000	<-
(3)	+++++	+++++	747008	+++++	+++++	+++++	+++++	747008	0.000	<-
3 Aroclor-1232(1)	+++++	+++++	360014	+++++	+++++	+++++	+++++	360014	0.000	<-
(2)	+++++	+++++	356318	+++++	+++++	+++++	+++++	356318	0.000	<-
(3)	+++++	+++++	276108	+++++	+++++	+++++	+++++	276108	0.000	<-
(4)	+++++	+++++	370766	+++++	+++++	+++++	+++++	370766	0.000	<-
(5)	+++++	+++++	238432	+++++	+++++	+++++	+++++	238432	0.000	<-

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
4 Aroclor-1016(1)	923640	903530	846942	771091	779265	+++++		
	1057200						880278	12.125
(2)	1014220	1001495	918888	922578	901680	+++++		
	1340600						1016577	16.271
(3)	858560	891405	872630	883862	870915	+++++		
	926800						884029	2.693
(4)	992620	935650	889400	881750	865801	+++++		
	1278700						973987	16.040
(5)	721620	705110	643744	644573	626205	+++++		
	1010800						725342	19.971
5 Aroclor-1242(1)	+++++	+++++	420486	+++++	+++++	+++++		
	+++++						420486	0.000
(2)	+++++	+++++	679866	+++++	+++++	+++++		
	+++++						679866	0.000
(3)	+++++	+++++	713230	+++++	+++++	+++++		
	+++++						713230	0.000
(4)	+++++	+++++	445850	+++++	+++++	+++++		
	+++++						445850	0.000
(5)	+++++	+++++	339342	+++++	+++++	+++++		
	+++++						339342	0.000
6 Aroclor-1248(1)	+++++	+++++	1041508	+++++	+++++	+++++		
	+++++						1041508	0.000

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	406940	+++++	+++++	+++++	406940	0.000	<-
(3)	+++++ / +++++	+++++	491322	+++++	+++++	+++++	491322	0.000	<-
(4)	+++++ / +++++	+++++	436776	+++++	+++++	+++++	436776	0.000	<-
(5)	+++++ / +++++	+++++	619976	+++++	+++++	+++++	619976	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	1144822	+++++	+++++	+++++	1144822	0.000	
(2)	+++++ / +++++	+++++	1902580	+++++	+++++	+++++	1902580	0.000	
(3)	+++++ / +++++	+++++	1069714	+++++	+++++	+++++	1069714	0.000	
(4)	+++++ / +++++	+++++	1454892	+++++	+++++	+++++	1454892	0.000	
(5)	+++++ / +++++	+++++	1011000	+++++	+++++	+++++	1011000	0.000	
8 Aroclor-1260(1)	1986280 / 2213400	1934205	1774966	1677980	1652811	+++++	1873274	11.414	
(2)	2615500 / 2792900	2439275	2323566	2229388	2207857	+++++	2434748	9.491	

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(3)	2254800 / 2375500	2139695	2002940	1848940	1874135	+++++	2082668	10.143	
(4)	2246000 / 2531300	2094370	2023828	1814592	1842167	+++++	2092043	12.839	
(5)	1100260 / 1166900	1044560	931270	904051	891643	+++++	1006447	11.356	
9 Aroclor-1262 (1)	+++++ / +++++	+++++	2762654	+++++	+++++	+++++	2762654	0.000	
(2)	+++++ / +++++	+++++	2303116	+++++	+++++	+++++	2303116	0.000	<-
(3)	+++++ / +++++	+++++	4765290	+++++	+++++	+++++	4765290	0.000	<-
(4)	+++++ / +++++	+++++	1934972	+++++	+++++	+++++	1934972	0.000	<-
(5)	+++++ / +++++	+++++	3053472	+++++	+++++	+++++	3053472	0.000	<-
10 Aroclor-1268 (1)	+++++ / +++++	+++++	5707960	+++++	+++++	+++++	5707960	0.000	
(2)	+++++ / +++++	+++++	4924600	+++++	+++++	+++++	4924600	0.000	<-
(3)	+++++ / +++++	+++++	4014208	+++++	+++++	+++++	4014208	0.000	<-

Report Date : 03-Sep-2010 10:53

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:44
End Cal Date : 02-SEP-2010 18:49
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m
Last Edit : 03-Sep-2010 10:52 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(4)	+++++	+++++	1271086	+++++	+++++	+++++	+++++	1271086	0.000	<-
$ 2 Tetrachloro-m-xylene	25362400	26401900	28279400	27883340	27449500	+++++	29194000	27428423	4.991	
$ 11 Decachlorobiphenyl	16775600	14740100	16316480	15102760	15062600	+++++	18336000	16055590	8.545	

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900079.D
Report Date: 03-Sep-2010 10:57

7E
HP6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900079.D
Analysis Type: ~~AIR~~ NONE
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m

Injection Date: 02-SEP-2010 21:11
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:44 18:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	880278	835130	0.010	5.12883	15.00000	Averaged	
(2)	1016577	939096	0.010	7.62173	15.00000	Averaged	
(3)	884029	870368	0.010	1.54527	15.00000	Averaged	
(4)	973987	906108	0.010	6.96917	15.00000	Averaged	
(5)	725342	608146	0.010	16.15733	15.00000	Averaged	<- O.K.
$ 2 Tetrachloro-m-xylene	27428423	++++	0.000	++++	15.00000	Averaged	<- N.A.
$ 11 Decachlorobiphenyl	16055590	368280	0.010	97.70622	15.00000	Averaged	<- N.A.
8 Aroclor-1260 (1)	1873274	1891140	0.010	-0.95375	15.00000	Averaged	
(2)	2434748	2445674	0.010	-0.44877	15.00000	Averaged	
(3)	2082668	2111940	0.010	-1.40549	15.00000	Averaged	
(4)	2092043	1839330	0.010	12.07971	15.00000	Averaged	
(5)	1006447	935944	0.010	7.00517	15.00000	Averaged	

AA 9/3/10

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H250417

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.05 DCB: 13.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	MARSHY POINT	L537V1AE	09/03/10	0035	6.05	13.23
02	MARSHY POINT	L537W1AD	09/03/10	0055	6.05	13.23
03	MARSHY POINT	L53701AD	09/03/10	0116	6.05	13.24
04	MARSHY POINT	L53711AD	09/03/10	0136	6.05	13.23
05	BOWLEYS QUAR	L53721AE	09/03/10	0156	6.05	13.23
06	BOWLEYS QUAR	L53741AD	09/03/10	0217	6.05	13.23
07	BOWLEYS QUAR	L53761AD	09/03/10	0237	6.05	13.23
08	BOWLEYS QUAR	L53771AD	09/03/10	0257	6.05	13.23
09	PBLK7336	L54X91AA	09/03/10	0318	6.05	13.23
10	LCS7336	L54X91AC	09/03/10	0338	6.05	13.24
11	LCSD7336	L54X91AD	09/03/10	0358	6.05	13.23
12		MH1660	09/03/10	0419	6.04	13.23
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QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Z0900100.D
Report Date: 03-Sep-2010 10:49

7E
MH6890 GC-14
MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900100.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\yPCBB.m

Injection Date: 03-SEP-2010 04:19
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:44 18:49
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016 (1)	880278	780250	0.010	11.36322	15.00000	Averaged
(2)	1016577	934158	0.010	8.10748	15.00000	Averaged
(3)	884029	909863	0.010	-2.92234	15.00000	Averaged
(4)	973987	901346	0.010	7.45809	15.00000	Averaged
(5)	725342	657779	0.010	9.31463	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	27428423	27524400	0.000	-0.34992	15.00000	Averaged
$ 11 Decachlorobiphenyl	16055590	15068660	0.010	6.14696	15.00000	Averaged
8 Aroclor-1260 (1)	1873274	1716253	0.010	8.38215	15.00000	Averaged
(2)	2434748	2286053	0.010	6.10719	15.00000	Averaged
(3)	2082668	1936197	0.010	7.03287	15.00000	Averaged
(4)	2092043	1877704	0.010	10.24543	15.00000	Averaged
(5)	1006447	900617	0.010	10.51524	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: SDGA05064

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT	#
01		M2154	09/02/10	1423				
02		M1232	09/02/10	1444				
03		M1242	09/02/10	1504				
04		M1248	09/02/10	1525				
05		M1262	09/02/10	1545				
06		M1268	09/02/10	1605				
07		XL1660	09/02/10	1626				
08		L1660	09/02/10	1646				
09		ML1660	09/02/10	1707				
10		M1660	09/02/10	1727				
11		MH1660	09/02/10	1747				
12		H1660	09/02/10	1808				
13		XH1660	09/02/10	1828				
14		2M2154	09/02/10	1849				
15		2M1232	09/02/10	1909				
16		2M1242	09/02/10	1929				
17		2M1248	09/02/10	1950				
18		2M1262	09/02/10	2010				
19		2M1268	09/02/10	2030				
20		2M1660	09/02/10	2051				
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

6E
HP6890 GC-14
MA-1

Calibration File Names:
Level 1: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900067.D
Level 2: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900068.D
Level 3: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900069.D
Level 4: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900070.D
Level 5: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900071.D
Level 6: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900072.D
Level 7: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900066.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	158318	+++++	+++++	+++++	158318	0.000	
(2)	+++++ / +++++	+++++	113230	+++++	+++++	+++++	113230	0.000	
(3)	+++++ / +++++	+++++	397978	+++++	+++++	+++++	397978	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	115154	+++++	+++++	+++++	115154	0.000	
(2)	+++++ / +++++	+++++	165876	+++++	+++++	+++++	165876	0.000	<-
(3)	+++++ / +++++	+++++	184724	+++++	+++++	+++++	184724	0.000	<-
(4)	+++++ / +++++	+++++	109890	+++++	+++++	+++++	109890	0.000	<-
(5)	+++++ / +++++	+++++	142110	+++++	+++++	+++++	142110	0.000	<-

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
4 Aroclor-1016(1)	460380 549400	456225	436984	423273	440168	510758	468170	9.706
(2)	531180 601500	542855	523448	526302	562914	661682	564269	9.019
(3)	288460 270300	317205	312092	311855	351392	413870	323596	14.554
(4)	395560 427200	388630	372592	351875	383165	431261	392898	7.246
(5)	436580 484100	427840	405108	384361	430419	484211	436088	8.558
5 Aroclor-1242(1)	+++++ +++++	+++++	257966	+++++	+++++	+++++	257966	0.000
(2)	+++++ +++++	+++++	411314	+++++	+++++	+++++	411314	0.000
(3)	+++++ +++++	+++++	231546	+++++	+++++	+++++	231546	0.000
(4)	+++++ +++++	+++++	195370	+++++	+++++	+++++	195370	0.000
(5)	+++++ +++++	+++++	251484	+++++	+++++	+++++	251484	0.000
6 Aroclor-1248(1)	+++++ +++++	+++++	555682	+++++	+++++	+++++	555682	0.000

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(2)	+++++	+++++	591274	+++++	+++++	+++++	+++++	591274	0.000	<-
(3)	+++++	+++++	523708	+++++	+++++	+++++	+++++	523708	0.000	<-
(4)	+++++	+++++	211982	+++++	+++++	+++++	+++++	211982	0.000	<-
(5)	+++++	+++++	126484	+++++	+++++	+++++	+++++	126484	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	198072	+++++	+++++	+++++	+++++	198072	0.000	
(2)	+++++	+++++	461322	+++++	+++++	+++++	+++++	461322	0.000	<-
(3)	+++++	+++++	682708	+++++	+++++	+++++	+++++	682708	0.000	<-
(4)	+++++	+++++	405952	+++++	+++++	+++++	+++++	405952	0.000	<-
(5)	+++++	+++++	312610	+++++	+++++	+++++	+++++	312610	0.000	<-
8 Aroclor-1260(1)	584280	575520	541594	509380	557882	626132	753000	592541	13.421	
(2)	781300	778825	769718	773756	806981	916815	896800	817742	7.615	

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(3)	457020 / 494300	477495	466244	442566	477242	546535	480200	6.992	
(4)	1165720 / 1190400	1199850	1239132	1140195	1253732	1436877	1232272	7.984	
(5)	582800 / 677400	567015	576770	575262	625119	673214	611083	7.808	
9 Aroclor-1262(1)	+++++ / +++++	+++++	506162	+++++	+++++	+++++	506162	0.000	
(2)	+++++ / +++++	+++++	231460	+++++	+++++	+++++	231460	0.000	<-
(3)	+++++ / +++++	+++++	228222	+++++	+++++	+++++	228222	0.000	<-
(4)	+++++ / +++++	+++++	1321770	+++++	+++++	+++++	1321770	0.000	<-
(5)	+++++ / +++++	+++++	712214	+++++	+++++	+++++	712214	0.000	<-
10 Aroclor-1268(1)	+++++ / +++++	+++++	1625080	+++++	+++++	+++++	1625080	0.000	<-
(2)	+++++ / +++++	+++++	1310294	+++++	+++++	+++++	1310294	0.000	<-
(3)	+++++ / +++++	+++++	1153652	+++++	+++++	+++++	1153652	0.000	<-

Report Date : 03-Sep-2010 12:06

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 14:23
End Cal Date : 02-SEP-2010 18:28
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m
Last Edit : 03-Sep-2010 12:02 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
	0.01000 Level 7							
(4)	+++++	+++++	2981280	+++++	+++++	+++++		
	+++++						2981280	0.000 <-
$ 2 Tetrachloro-m-xylene	15285200	15474500	18029680	17686400	18674570	20767755		
	16864000						17540301	10.861
$ 11 Decachlorobiphenyl	7002000	6553300	7230320	6711440	7044030	7631285		
	9146000						7331196	11.909

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0H250417

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/02/10 09/02/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.03 DCB: 13.03

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	MARSHY POINT	L537V1AE	09/03/10	0014	6.03	13.04
02	MARSHY POINT	L537W1AD	09/03/10	0035	6.03	13.04
03	MARSHY POINT	L53701AD	09/03/10	0055	6.03	13.04
04	MARSHY POINT	L53711AD	09/03/10	0116	6.03	13.04
05	BOWLEYS QUAR	L53721AE	09/03/10	0136	6.03	13.04
06	BOWLEYS QUAR	L53741AD	09/03/10	0156	6.03	13.04
07	BOWLEYS QUAR	L53761AD	09/03/10	0217	6.03	13.04
08	BOWLEYS QUAR	L53771AD	09/03/10	0237	6.03	13.04
09	PBLK7336	L54X91AA	09/03/10	0257	6.03	13.04
10	LCS7336	L54X91AC	09/03/10	0318	6.02	13.04
11	LCSD7336	L54X91AD	09/03/10	0338	6.02	13.04
12		MH1660	09/03/10	0358	6.03	13.04
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QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900079.D
Report Date: 03-Sep-2010 12:02

TE

HP6890 GC-14

MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0900079.D
Analysis Type:
Lab Sample ID: 2M1660
Method: \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m

Injection Date: 02-SEP-2010 20:51
Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Init. Cal. Times: 14:23 18:28
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	468170	428474	400.000	8.47889	15.00000	Averaged	
(2)	564269	520160	400.000	7.81695	15.00000	Averaged	
(3)	323596	305230	400.000	5.67569	15.00000	Averaged	
(4)	392898	386574	400.000	1.60945	15.00000	Averaged	
(5)	436088	414402	400.000	4.97294	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	17540301	808600	400.000	95.39004	15.00000	Averaged	<- NA
$ 11 Decachlorobiphenyl	7331196	175680	400.000	97.60367	15.00000	Averaged	<- NA
8 Aroclor-1260 (1)	592541	568896	400.000	3.99045	15.00000	Averaged	
(2)	817742	844090	400.000	-3.22204	15.00000	Averaged	
(3)	480200	420688	400.000	12.39322	15.00000	Averaged	
(4)	1232272	1085962	400.000	11.87321	15.00000	Averaged	
(5)	611083	546038	400.000	10.64420	15.00000	Averaged	

Data File: \\PITSVR06\D\chem\gc14.i\09020.B\Y0900100.D
Report Date: 03-Sep-2010 13:15

7E
HP689 GC-14
MR-1

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i Injection Date: 03-SEP-2010 03:58
Lab File ID: Y0900100.D Init. Cal. Date(s): 02-SEP-2010 02-SEP-2010
Analysis Type: Init. Cal. Times: 14:23 18:28
Lab Sample ID: MH1660 Quant Type: ESTD
Method: \\PITSVR06\D\chem\gc14.i\09020.B\PCBA.m

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	468170	448672	400.000	4.16465	15.00000	Averaged
(2)	564269	556455	400.000	1.38473	15.00000	Averaged
(3)	323596	326716	400.000	-0.96406	15.00000	Averaged
(4)	392898	390886	400.000	0.51197	15.00000	Averaged
(5)	436088	421257	400.000	3.40101	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	17540301	18163420	400.000	-3.55250	15.00000	Averaged
$ 11 Decachlorobiphenyl	7331196	6827020	400.000	6.87714	15.00000	Averaged
8 Aroclor-1260(1)	592541	539492	400.000	8.95281	15.00000	Averaged
(2)	817742	813674	400.000	0.49747	15.00000	Averaged
(3)	480200	470976	400.000	1.92092	15.00000	Averaged
(4)	1232272	1210211	400.000	1.79029	15.00000	Averaged
(5)	611083	577826	400.000	5.44228	15.00000	Averaged

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L54X91AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

Lab File ID: Y0900097.

Matrix: SOLID

SDG Number:

Lot Number: C0H250417

Extraction Method: 3541

Date Extracted: 08/25/10

Date Analyzed(1): 09/03/10

Time Analyzed(1): 02:57

Instrument ID(1): S/T

Date Analyzed(2): N/A

Time Analyzed(2): N/A

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	MARSHY POINT-SS	L537V1AE	09/03/10	N/A
02	MARSHY POINT-01	L537W1AD	09/03/10	N/A
03	MARSHY POINT-02	L53701AD	09/03/10	N/A
04	MARSHY POINT-04	L53711AD	09/03/10	N/A
05	BOWLEYS QUARTERS-SS	L53721AE	09/03/10	N/A
06	BOWLEYS QUARTERS-01	L53741AD	09/03/10	N/A
07	BOWLEYS QUARTERS-02	L53761AD	09/03/10	N/A
08	BOWLEYS QUARTERS-04	L53771AD	09/03/10	N/A
09	CHECK SAMPLE	L54X91AC C	09/03/10	N/A
10	DUPLICATE CHECK	L54X91AD L	09/03/10	N/A
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0H250417
MB Lot-Sample #: C0H250000-336

Work Order #...: L54X91AA

Prep Date.....: 08/25/10
Prep Batch #...: 0237336
Initial Wgt/Vol: 15 g
Analyst ID.....: 402360

Matrix.....: SOLID

Analysis Time..: 02:57
Final Wgt/Vol..: 10 mL
Instrument ID..: S/T

Analysis Date..: 09/03/10
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	17	ug/kg	SW846 8082
Aroclor 1221	ND	17	ug/kg	SW846 8082
Aroclor 1232	ND	17	ug/kg	SW846 8082
Aroclor 1242	ND	17	ug/kg	SW846 8082
Aroclor 1248	ND	17	ug/kg	SW846 8082
Aroclor 1254	ND	17	ug/kg	SW846 8082
Aroclor 1260	ND	17	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	106	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250417

Extraction: XXA4FQH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	MARSHY POINT-SS	107	92	00
02	MARSHY POINT-01	102	88	00
03	MARSHY POINT-02	98	83	00
04	MARSHY POINT-04	99	85	00
05	BOWLEYS QUARTERS-SS	97	82	00
06	BOWLEYS QUARTERS-01	96	84	00
07	BOWLEYS QUARTERS-02	103	88	00
08	BOWLEYS QUARTERS-04	98	86	00
09	METHOD BLK. L54X91AA	106	93	00
10	LCS L54X91AC	113	92	00
11	LCSD L54X91AD	115	88	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L54X91AC
BATCH: 0237336

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	616	92	55- 130	
Aroclor 1260	667	606	91	54- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0H250000 WO #: L54X91AD
BATCH: 0237336

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENT. (ug/kg)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	667	634	95	55- 130	
Aroclor 1260	667	621	93	54- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT		JOB NUMBER	
Middle River Center		SDG COH250917	
SUBJECT: Sample Calculations			
BASED ON		DRAWING NUMBER	
BY: Ann Cognetti	CHECKED BY	APPROVED BY	DATE: 10-1-10

Sample Bowley Quarters 01; Fluoranthene

$$\frac{46843}{216528} * 5 * \frac{500}{2 * 30} * \frac{8}{1.11768} = \frac{64.52}{0.32} = 201.63 \text{ ug/kg}$$

Fluoranthene

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-01

GC/MS Semivolatiles

Lot-Sample #...:	C0H250417-006	**Work Order #...:**	L53741AC	**Matrix.....:**	SOLID
Date Sampled...:	08/21/10 15:47	**Date Received..:**	08/24/10 10:15	**MS Run #.....:**	
Prep Date.....:	08/25/10	**Analysis Date..:**	08/26/10		
Prep Batch #...:	0237335	**Analysis Time..:**	14:50		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	30 g	**Final Wgt/Vol..:**	0.5 mL
% Moisture.....:	68	**Analyst ID.....:**	007062	**Instrument ID..:**	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**110**	**53**	**ug/kg**	**4.6**
Acenaphthylene	**29 J**	**53**	**ug/kg**	**6.1**
Acenaphthene	ND	53	ug/kg	5.1
Fluorene	**51 J**	**53**	**ug/kg**	**7.0**
Phenanthrene	**140**	**53**	**ug/kg**	**8.4**
Anthracene	**47 J**	**53**	**ug/kg**	**5.2**
Fluoranthene	**200**	**53**	**ug/kg**	**5.7**
Pyrene	**130**	**53**	**ug/kg**	**5.4**
Benzo(a)anthracene	**70**	**53**	**ug/kg**	**6.6**
Chrysene	**63**	**53**	**ug/kg**	**6.3**
Benzo(b)fluoranthene	**110**	**53**	**ug/kg**	**8.3**
Benzo(k)fluoranthene	ND	53	ug/kg	11
Benzo(a)pyrene	**74**	**53**	**ug/kg**	**5.3**
Indeno(1,2,3-cd)pyrene	**110**	**53**	**ug/kg**	**5.5**
Dibenzo(a,h)anthracene	ND	53	ug/kg	5.9
Benzo(ghi)perylene	**110**	**53**	**ug/kg**	**5.3**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	104	(27 - 110)
Terphenyl-d14	93	(21 - 130)
2-Fluorobiphenyl	99	(28 - 108)
2-Fluorophenol	94	(28 - 107)
Phenol-d5	105	(30 - 112)
2,4,6-Tribromophenol	93	(21 - 116)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Sample Calculation

Test America Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\PITSVR06\d\chem\722.i\082610.b\F0826029.D
Lab Smp Id: 153741ac Client Smp ID: BOWLEYS QUARTERS-01
Inj Date : 26-AUG-2010 14:50
Operator : 007062 Inst ID: 722.i
Smp Info : C0H250417-006 x5 8/25/10 Soil (0237335)
Misc Info : 153741ac,082610.b,ll.m,42pah.sub
Comment :
Method : \\PITSVR06\d\chem\722.i\082610.b\LL.m
Meth Date : 27-Aug-2010 04:07 bungardf Quant Type: ISTD
Cal Date : 18-AUG-2010 02:51 Cal File: F08180A9.D
Als bottle: 32
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 42pah.sub
Target Version: 4.14
Processing Host: PITPC-503

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	500.000	Volume of final extract (uL) (1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/kg)	
* 1	1,4-Dichlorobenzene-d4	152	4.251	4.253	(1.000)	55332	8.00000		
* 2	Naphthalene-d8	136	5.256	5.268	(1.000)	210441	8.00000		
* 3	Acenaphthene-d10	164	6.623	6.646	(1.000)	126160	8.00000		
* 4	Phenanthrene-d10	188	7.777	7.816	(1.000)	216528	8.00000		(H)
* 5	Chrysene-d12	240	10.117	10.172	(1.000)	252380	8.00000		
* 6	Perylene-d12	264	11.682	11.753	(1.000)	270188	8.00000		(H)
51	Naphthalene	128	5.272	5.284	(1.003)	22406	0.80533	33.556	
62	2-Methylnaphthalene	142	5.817	5.829	(1.107)	10220	0.55498	23.124	(a)
205	1-Methylnaphthalene	142	5.891	5.909	(1.121)	4000	0.22537	9.3902	(a)
79	Acenaphthylene	152	6.511	6.534	(0.983)	5794	0.21848	9.1035	
82	Acenaphthene	153	Compound Not Detected.						
94	Fluorene	166	7.051	7.079	(1.065)	8121	0.38818	16.174	
115	Phenanthrene	178	7.799	7.832	(1.003)	32352	1.04783	43.660	(H)
116	Anthracene	178	7.836	7.875	(1.008)	10949	0.35329	14.720	
123	Fluoranthene	202	8.744	8.788	(1.124)	46843	1.54847	64.520	
125	Pyrene	202	8.936	8.981	(0.883)	41222	1.01259	42.191	
136	Benzo(a)Anthracene	228	10.106	10.161	(0.999)	18789	0.53255	22.190	(Q)
137	Chrysene	228	10.138	10.199	(1.002)	16925	0.47882	19.951	
139	bis(2-ethylhexyl)Phthalate	149	10.144	10.209	(1.003)	12598	0.49759	20.733	(a)
141	Benzo(b)fluoranthene	252	11.271	11.342	(0.965)	37232	0.86423	36.010	(H)
142	Benzo(k)fluoranthene	252	Compound Not Detected.						

Sample Calculation

Report Date : 17-Aug-2010 01:42

Test America Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-AUG-2010 06:08
End Cal Date : 13-AUG-2010 08:33
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\d\chem\722.i\081310.b\LL.m
Last Edit : 17-Aug-2010 01:37 722.i

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	1.01536	1.14862	1.14047	1.09907	1.18313	1.14698						
	1.09291	1.11490					AVRG		1.11768		4.54401	
124 Benzidine	2328	9886	34574	97253	179112	307693						
	484456	682853					QUAD	0.00840	3.17671	-0.00076	0.99889	
125 Pyrene	1.31593	1.33451	1.37368	1.36146	1.28464	1.25122						
	1.23822	1.16368					AVRG		1.29042		5.47434	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

56

COH250417

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**October 22, 2010**
FROM:	**MEGAN CARSON**	**COPIES:**	**DV FILE**
SUBJECT:	**INORGANIC DATA VALIDATION-SELECT METALS, TOC LOCKHEED MIDDLE RIVER CENTER SDG C0H250417**		

SAMPLES: 8/Sediment/

BOWLEYS QUARTERS-01	BOWLEYS QUARTERS-02
BOWLEYS QUARTERS-04	BOWLEYS QUARTERS-SS
MARSHY POINT-01	MARSHY POINT-02
MARSHY POINT-04	MARSHY POINT-SS

Overview

The sample set for Middle River Complex, SDG C0H250417, consists of eight (8) sediment environmental samples. This SDG contained one field duplicate pair: DHC-SW-VOC-DUP.

All sample were analyzed for select metals including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Samples BOWLEYS QUARTERS-SS MARSHY POINT-SS were analyzed for total organic carbon (TOC). The samples were collected by Tetra Tech NUS on August 21st, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7471ATOC analyses were conducted using method EPA Llyod Kahn.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following samples had percent solid <30%: BOWLEYS QUARTERS-SS and MARSHY POINT-SS. Positive results were qualified as estimated (J).

Notes

Positive results greater than the method detection limit but less than the reporting limit were qualified as estimated (J).

The following contaminants were detected in blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony [1]	0.0038 mg/kg	0.019 mg/kg
Chromium [1]	0.036 mg/kg	0.18 mg/kg
Lead [1]	0.0078 mg/kg	0.039 mg/kg
Arsenic [2]	0.00022 mg/L	0.055 mg/kg
Selenium [2]	0.00078 mg/L	0.195 mg/kg
Thallium [2]	0.00004 mg/L	0.01 mg/kg

[1] Maximum concentration present in a preparation blank affecting samples in preparation batch 0245104.
[2] Maximum concentration present in a continuing calibration blank affecting all samples analyzed for select metals.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No validation action was warranted as sample results were all greater than the blank action levels.

The CRDL standard analyzed on 9/5/10 had a percent recovery >110% for arsenic. All samples were affected. All sample results were greater than 2X CRDL therefore no sample results were qualified.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: Percent soild results for samples BOWLEYS QUARTERS-SS and MARSHY POINT-SS were <30% and resulted in qualification of all sample results.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993. The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's r < 0.995
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient r < 0.995
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	BOWLEYS QUARTERS-01			BOWLEYS QUARTERS-02			BOWLEYS QUARTERS-04			BOWLEYS QUARTERS-SS		
SDG: C0H250417	LAB_ID	C0H250417006			C0H250417007			C0H250417008			C0H250417005		
FRACTION: M	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	32.0			40.0			68.0			28.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.32			0.073	J	P	0.032	J	P	0.48	J	Y
ARSENIC		9.2			5			1.6			13.5	J	Y
BERYLLIUM		1.7			1			0.33			1.6	J	Y
CADMIUM		0.91			0.28			0.096			0.95	J	Y
CHROMIUM		33.2			23.1			8.9			39.3	J	Y
COPPER		54			15.6			4.9			110	J	Y
LEAD		75.1			14.2			4.3			104	J	Y
MERCURY		0.29			0.05			0.008	U		0.43	J	Y
NICKEL		42.3			18.7			6.6			44.2	J	Y
SELENIUM		2.5			1			0.42			2	J	Y
SILVER		0.24			0.064	J	P	0.026	J	P	0.59	J	Y
THALLIUM		0.33			0.18			0.061	J	P	0.24	J	Y
ZINC		209			61.1			23.1			327	J	Y

PROJ_NO: 02903	NSAMPLE	MARSHY POINT-01			MARSHY POINT-02			MARSHY POINT-04			MARSHY POINT-SS		
SDG: C0H250417	LAB_ID	C0H250417002			C0H250417003			C0H250417004			C0H250417001		
FRACTION: M	SAMP_DATE	8/21/2010			8/21/2010			8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	34.0			36.0			37.0			27.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.3			0.096	J	P	0.079	J	P	0.43	J	Y
ARSENIC		10.5			6.9			6.8			11.2	J	Y
BERYLLIUM		2			1.5			1.4			1.7	J	Y
CADMIUM		0.67			0.36			0.34			0.84	J	Y
CHROMIUM		37.6			33.2			32.9			36.3	J	Y
COPPER		39.9			16.2			14			67.1	J	Y
LEAD		45.2			18.7			18.6			67.1	J	Y
MERCURY		0.26			0.053			0.051			0.25	J	Y
NICKEL		40.4			27.6			27.3			46.8	J	Y
SELENIUM		2.4			1.3			1.1			2.1	J	Y
SILVER		0.17			0.078	J	P	0.07	J	P	0.47	J	Y
THALLIUM		0.39			0.21			0.19			0.27	J	Y
ZINC		167			95.9			94.7			248	J	Y

PROJ_NO: 02903	NSAMPLE	BOWLEYS QUARTERS-SS			MARSHY POINT-SS		
SDG: C0H250417	LAB_ID	C0H250417005			C0H250417001		
FRACTION: MISC	SAMP_DATE	8/21/2010			8/21/2010		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	28.0			27.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		35200	J	Y	34300	J	Y

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-01

TOTAL Metals

Lot-Sample #...: C0H250417-006 **Matrix.....:** SOLID
Date Sampled...: 08/21/10 **Date Received..:** 08/24/10
% Moisture.....: 68

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.29**	**0.052**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L53741AE**
		Dilution Factor: 0.5		Analysis Time..: 08:30	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.017	
Prep Batch #...: 0245104						
Silver	**0.24**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AF**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0062	
Arsenic	**9.2**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AG**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.029	
Beryllium	**1.7**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AH**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.012	
Cadmium	**0.91**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.011	
Chromium	**33.2 J**	**0.32**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AK**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0097	
Copper	**54.0**	**0.32**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AL**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.052	
Nickel	**42.3**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AM**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.018	
Lead	**75.1 J**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AN**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0060	

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Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-01

TOTAL Metals

Lot-Sample #...: C0H250417-006 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.32 J**	**0.32**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AP**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0041	
Selenium	2.5	**0.79**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AQ**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.080	
Thallium	**0.33**	**0.16**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AR**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0032	
Zinc	**209**	**0.79**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53741AT**
		Dilution Factor: 0.5		Analysis Time..: 13:36	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.10	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-02

TOTAL Metals

Lot-Sample #...: C0H250417-007 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 60

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.050**	**0.041**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L53761AE**
		Dilution Factor: 0.5		Analysis Time..: 08:35	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.013	
Prep Batch #...: 0245104						
Silver	**0.064 B**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AF**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0048	
Arsenic	**5.0**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AG**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.022	
Beryllium	**1.0**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AH**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0093	
Cadmium	**0.28**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0087	
Chromium	**23.1 J**	**0.25**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AK**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0075	
Copper	**15.6**	**0.25**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AL**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.041	
Nickel	**18.7**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AM**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.014	
Lead	**14.2 J**	**0.12**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53761AN**
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0047	

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Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-02

TOTAL Metals

Lot-Sample #...: C0H250417-007 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.073 B,J	0.25	mg/kg	SW846 6020	09/02-09/05/10	L53761AP
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0032	
Selenium	1.0	0.62	mg/kg	SW846 6020	09/02-09/05/10	L53761AQ
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.062	
Thallium	0.18	0.12	mg/kg	SW846 6020	09/02-09/05/10	L53761AR
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0025	
Zinc	61.1	0.62	mg/kg	SW846 6020	09/02-09/05/10	L53761AT
		Dilution Factor: 0.5		Analysis Time..: 13:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.080	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-04

TOTAL Metals

Lot-Sample #...: C0H250417-008 **Matrix.....:** SOLID
Date Sampled...: 08/21/10 **Date Received..:** 08/24/10
% Moisture.....: 32

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	ND	0.024	mg/kg	SW846 7471A	09/02/10	L53771AE
		Dilution Factor: 0.5		Analysis Time..: 08:37	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.0080	
Prep Batch #...: 0245104						
Silver	**0.026 B**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AF**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0029	
Arsenic	**1.6**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AG**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.013	
Beryllium	**0.33**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AH**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0055	
Cadmium	**0.096**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0051	
Chromium	**8.9 J**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AK**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0045	
Copper	**4.9**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AL**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.024	
Nickel	**6.6**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AM**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0083	
Lead	**4.3 J**	**0.073**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53771AN**
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0028	

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Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-04

TOTAL Metals

Lot-Sample #...: C0H250417-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.032 B,J	0.15	mg/kg	SW846 6020	09/02-09/05/10	L53771AP
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0019	
Selenium	0.42	0.37	mg/kg	SW846 6020	09/02-09/05/10	L53771AQ
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.037	
Thallium	0.061 B	0.073	mg/kg	SW846 6020	09/02-09/05/10	L53771AR
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0015	
Zinc	23.1	0.37	mg/kg	SW846 6020	09/02-09/05/10	L53771AT
		Dilution Factor: 0.5		Analysis Time..: 13:44	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.047	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-SS

TOTAL Metals

Lot-Sample #...: C0H250417-005 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 72

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.43**	**0.058**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L53721AF**
		Dilution Factor: 0.5		Analysis Time..: 08:29	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.019	
Prep Batch #...: 0245104						
Silver	**0.59**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AG**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0069	
Arsenic	**13.5**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AH**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.032	
Beryllium	**1.6**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.013	
Cadmium	**0.95**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AK**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.012	
Chromium	**39.3 J**	**0.35**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AL**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.011	
Copper	**110**	**0.35**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AM**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.058	
Nickel	**44.2**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AN**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.020	
Lead	**104 J**	**0.18**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53721AP**
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0067	

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Tetra Tech NUS, Inc

Client Sample ID: BOWLEYS QUARTERS-SS

TOTAL Metals

Lot-Sample #...: C0H250417-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.48 J	0.35	mg/kg	SW846 6020	09/02-09/05/10	L53721AQ
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0046	
Selenium	2.0	0.88	mg/kg	SW846 6020	09/02-09/05/10	L53721AR
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.089	
Thallium	0.24	0.18	mg/kg	SW846 6020	09/02-09/05/10	L53721AT
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0035	
Zinc	327	0.88	mg/kg	SW846 6020	09/02-09/05/10	L53721AU
		Dilution Factor: 0.5		Analysis Time..: 13:31	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.11	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-01

TOTAL Metals

Lot-Sample #...: C0H250417-002 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 66

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.26**	**0.048**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L537W1AE**
		Dilution Factor: 0.5		Analysis Time..: 08:21	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.016	
Prep Batch #...: 0245104						
Silver	**0.17**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AF**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0057	
Arsenic	**10.5**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AG**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.026	
Beryllium	**2.0**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AH**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.011	
Cadmium	**0.67**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.010	
Chromium	**37.6 J**	**0.29**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AK**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0089	
Copper	**39.9**	**0.29**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AL**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.048	
Nickel	**40.4**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AM**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.016	
Lead	**45.2 J**	**0.15**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537W1AN**
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0055	

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Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-01

TOTAL Metals

Lot-Sample #...: C0H250417-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.30 J	0.29	mg/kg	SW846 6020	09/02-09/05/10	L537W1AP
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0038	
Selenium	2.4	0.73	mg/kg	SW846 6020	09/02-09/05/10	L537W1AQ
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.073	
Thallium	0.39	0.15	mg/kg	SW846 6020	09/02-09/05/10	L537W1AR
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0029	
Zinc	167	0.73	mg/kg	SW846 6020	09/02-09/05/10	L537W1AT
		Dilution Factor: 0.5		Analysis Time..: 13:19	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.094	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-02

TOTAL Metals

Lot-Sample #...: C0H250417-003 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 64

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.053**	**0.046**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L53701AE**
		Dilution Factor: 0.5		Analysis Time..: 08:25	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.015	
Prep Batch #...: 0245104						
Silver	**0.078 B**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AF**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0054	
Arsenic	**6.9**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AG**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.025	
Beryllium	**1.5**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AH**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.010	
Cadmium	**0.36**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0097	
Chromium	**33.2 J**	**0.28**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AK**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0084	
Copper	**16.2**	**0.28**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AL**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.046	
Nickel	**27.6**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AM**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.016	
Lead	**18.7 J**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AN**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0053	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-02

TOTAL Metals

Lot-Sample #...: C0H250417-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.096 B,J**	**0.28**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AP**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0036	
Selenium	**1.3**	**0.69**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AQ**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.069	
Thallium	**0.21**	**0.14**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AR**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0028	
Zinc	**95.9**	**0.69**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53701AT**
		Dilution Factor: 0.5		Analysis Time..: 13:23	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.090	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-04

TOTAL Metals

Lot-Sample #...: C0H250417-004 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 63

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.051**	**0.044**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L53711AE**
		Dilution Factor: 0.5		Analysis Time..: 08:27	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.015	
Prep Batch #...: 0245104						
Silver	**0.070 B**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AF**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0052	
Arsenic	**6.8**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AG**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.024	
Beryllium	**1.4**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AH**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.010	
Cadmium	**0.34**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0094	
Chromium	**32.9 J**	**0.27**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AK**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0082	
Copper	**14.0**	**0.27**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AL**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.044	
Nickel	**27.3**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AM**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.015	
Lead	**18.6 J**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AN**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0051	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-04

TOTAL Metals

Lot-Sample #...: C0H250417-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	**0.079 B,J**	**0.27**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AP**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0035	
Selenium	**1.1**	**0.67**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AQ**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.067	
Thallium	**0.19**	**0.13**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AR**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0027	
Zinc	**94.7**	**0.67**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L53711AT**
		Dilution Factor: 0.5		Analysis Time..: 13:27	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.087	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-SS

TOTAL Metals

Lot-Sample #...: C0H250417-001 Matrix.....: SOLID
Date Sampled...: 08/21/10 Date Received..: 08/24/10
% Moisture.....: 73

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0245015						
Mercury	**0.25**	**0.062**	**mg/kg**	**SW846 7471A**	**09/02/10**	**L537V1AF**
		Dilution Factor: 0.5		Analysis Time..: 08:19	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 0245008	MDL.....: 0.021	
Prep Batch #...: 0245104						
Silver	**0.47**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AG**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0073	
Arsenic	**11.2**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AH**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.034	
Beryllium	**1.7**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AJ**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.014	
Cadmium	**0.84**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AK**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.013	
Chromium	**36.3 J**	**0.38**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AL**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.011	
Copper	**67.1**	**0.38**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AM**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.062	
Nickel	**46.8**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AN**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.021	
Lead	**67.1 J**	**0.19**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L537V1AP**
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0072	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: MARSHY POINT-SS

TOTAL Metals

Lot-Sample #...: C0H250417-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.43 J	0.38	mg/kg	SW846 6020	09/02-09/05/10	L537V1AQ
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0049	
Selenium	2.1	0.94	mg/kg	SW846 6020	09/02-09/05/10	L537V1AR
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.095	
Thallium	0.27	0.19	mg/kg	SW846 6020	09/02-09/05/10	L537V1AT
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.0038	
Zinc	248	0.94	mg/kg	SW846 6020	09/02-09/05/10	L537V1AU
		Dilution Factor: 0.5		Analysis Time..: 13:14	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....: 0245070	MDL.....: 0.12	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0H250417
Matrix:	SOLID		

Total Organic Carbon by Lloyd Kahn

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
MARSHY POINT-SS	C0H250417 001	L537V1AC	34300	mg/kg	2090	7690	2.04	8/31/2010 - 9/1/2010 16:54	0243229
BOWLEYS QUARTERS-SS	C0H250417 005	L53721AC	35200	mg/kg	1760	6460	1.83	8/31/2010 - 9/1/2010 17:09	0243229

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0H250417

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 24, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, several samples were analyzed at a dilution.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

Metals:
Several samples were over the instruments linear range for SEM zinc and required a dilution.

The serial dilution of sample SD-102-SS (total) was outside of the percent difference control limits for silver, beryllium, and antimony. The results were flagged with an "E" qualifier.

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

The matrix spike and matrix spike duplicate of sample SD-92-SS recovered outside of the control limits for antimony and lead.

The matrix spike and matrix spike duplicate of sample SD-102-SS recovered outside of the control limits for antimony.

Metals (cont):
The matrix spike of sample SS-102-SS recovered outside of the control limits for chromium and zinc.

For the matrix spike and matrix spike duplicate of sample SD-102-SS, lead recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

General Chemistry:
There were no problems associated with the analysis.

METHODS SUMMARY

C0H250417

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
ICP-MS (6020)	SW846 6020	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
PCBs by SW-846 8082	SW846 8082	SW846 3541
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Total Residue as Percent Solids	SM20 2540G	
TOC Lloyd Kahn Lloyd Kahn	EPA Lloyd Kahn	EPA Lloyd Kahn

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0H250417

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L537V	001	MARSHY POINT-SS	08/21/10	15:20
L537W	002	MARSHY POINT-01	08/21/10	15:22
L5370	003	MARSHY POINT-02	08/21/10	15:24
L5371	004	MARSHY POINT-04	08/21/10	15:26
L5372	005	BOWLEYS QUARTERS-SS	08/21/10	15:45
L5374	006	BOWLEYS QUARTERS-01	08/21/10	15:47
L5376	007	BOWLEYS QUARTERS-02	08/21/10	15:49
L5377	008	BOWLEYS QUARTERS-04	08/21/10	15:51

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HOLDTIME

SDG C0H250417

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
HG	MG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	09/02/2010	09/02/2010	12	0	12
M	MG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
M	MG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	09/02/2010	09/05/2010	12	3	15
TOC	MG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	08/31/2010	09/01/2010	10	1	11
TOC	MG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	08/31/2010	09/01/2010	10	1	11
SIM	UG/KG	BOWLEYS QUARTERS-S	C0H250417005	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-SS	C0H250417001	SUR	08/21/2010	08/25/2010	08/27/2010	4	2	6
SIM	UG/KG	MARSHY POINT-SS	C0H250417001	NM	08/21/2010	08/25/2010	08/27/2010	4	2	6
SIM	UG/KG	MARSHY POINT-04	C0H250417004	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-04	C0H250417004	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-02	C0H250417003	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-02	C0H250417003	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417006	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	MARSHY POINT-01	C0H250417002	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417006	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-S	C0H250417005	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417008	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417008	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417007	SUR	08/21/2010	08/25/2010	08/26/2010	4	1	5
SIM	UG/KG	BOWLEYS QUARTERS-0	C0H250417007	NM	08/21/2010	08/25/2010	08/26/2010	4	1	5

C0H250417

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech	Project Manager: Mike Martin	Date: 8/21/10	Chain of Custody Number: 154236
Address: 20251 Century Blvd. Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3050	Lab Number:	Page 1 of 1
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Romanovage	Lab Contact:	
Project Name and Location (State): MCR Sed. Sampling, middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP metals	PAHs	PCBs	TOC	Special Instructions/ Conditions of Receipt
Marshy Point-SS	8/21/10	1520			X		X						X	X	X	X	
Marshy Point-01		1522											X	X	X		
Marshy Point-02		1524											X	X	X		
Marshy Point-04		1526											X	X	X		
Bowleys Quarters-SS		1545											X	X	X	X	
Bowleys Quarters-01		1547											X	X	X		
Bowleys Quarters-02		1549											X	X	X		
Bowleys Quarters-04	8/21/10	1551			X		X						X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date: 8/23/10	Time: 1530	1. Received By	Date: 8/23/10	Time: 1530
2. Relinquished By	Date: 8/23/10	Time: 1630	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/24/10	Time: 1015

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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(1 - 141)

Bowleys Quarters-SS

L5372 9/5/2010 1:31:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	86.178%	8.956	54.350	50.760	0.000	20510.000	22740.000	21720.000
2	13:33:16	88.020%	8.492	49.780	47.710	0.000	19840.000	21710.000	20900.000
3	13:33:59	87.594%	9.222	48.720	47.240	0.000	20100.000	22120.000	21100.000
x		87.264%	8.890	50.950	48.570	0.000	20150.000	22190.000	21240.000
σ		0.964%	0.370	2.995	1.911	0.000	338.200	518.100	430.100
%RSD		1.105	4.159	5.878	3.934	0.000	1.678	2.335	2.025
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	95330.000	2994.000	0.000	12170.000	8382.000	8504.000	81.983%	1125.000
2	13:33:16	91940.000	2939.000	0.000	12280.000	8680.000	8517.000	81.351%	1123.000
3	13:33:59	93100.000	2988.000	0.000	12390.000	8504.000	8562.000	80.725%	1125.000
x		93460.000	2974.000	0.000	12280.000	8522.000	8528.000	81.353%	1124.000
σ		1725.000	30.330	0.000	108.900	150.000	30.750	0.629%	1.195
%RSD		1.845	1.020	0.000	0.887	1.760	0.361	0.773	0.106
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	248.800	221.300	3266.000	172300.000	165400.000	137.700	251.100	617.800
2	13:33:16	246.400	222.000	3292.000	172900.000	165800.000	136.000	249.000	618.300
3	13:33:59	249.400	225.200	3322.000	174900.000	168200.000	137.900	252.300	619.800
x		248.200	222.800	3293.000	173400.000	166400.000	137.200	250.800	618.600
σ		1.559	2.069	28.280	1394.000	1519.000	1.069	1.676	1.033
%RSD		0.628	0.929	0.859	0.804	0.913	0.779	0.668	0.167
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	624.900	1843.000	1835.000	76.030	4.721	10.860	0.000	160.100
2	13:33:16	621.500	1848.000	1847.000	76.040	4.222	11.950	0.000	160.600
3	13:33:59	626.200	1876.000	1864.000	76.810	3.509	11.890	0.000	161.900
x		624.200	1856.000	1849.000	76.290	4.151	11.570	0.000	160.800
σ		2.414	17.420	14.220	0.447	0.609	0.614	0.000	0.934
%RSD		0.387	0.939	0.769	0.585	14.670	5.303	0.000	0.581
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	0.000	10.570	10.170	85.968%	3.487	3.211	5.672	5.103
2	13:33:16	0.000	10.400	10.140	86.997%	3.241	3.170	5.206	4.777
3	13:33:59	0.000	10.350	10.370	86.786%	3.316	3.305	5.222	4.727
x		0.000	10.440	10.220	86.584%	3.348	3.229	5.367	4.869
σ		0.000	0.112	0.124	0.543%	0.126	0.069	0.264	0.204
%RSD		0.000	1.068	1.211	0.628	3.767	2.142	4.926	4.198
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:32:33	90.881%	37.780	2.688	2.640	277.700	278.000	110.459%	112.273%
2	13:33:16	92.342%	37.290	2.746	2.625	278.000	277.700	111.884%	114.715%
3	13:33:59	92.276%	37.400	2.728	2.720	279.500	279.200	113.529%	115.332%
x		91.833%	37.490	2.720	2.662	278.400	278.300	111.957%	114.107%
σ		0.825%	0.258	0.030	0.051	0.949	0.774	1.537%	1.618%
%RSD		0.898	0.688	1.089	1.905	0.341	0.278	1.372	1.418
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:32:33	1.347	1.352	591.800	587.100	587.900	100.620%		
2	13:33:16	1.337	1.346	589.100	581.400	584.300	102.840%		
3	13:33:59	1.333	1.347	593.100	586.900	587.800	104.015%		
x		1.339	1.348	591.300	585.100	586.700	102.492%		
σ		0.007	0.003	2.022	3.187	2.022	1.724%		
%RSD		0.538	0.225	0.342	0.545	0.345	1.682		

$$\frac{1856\,\mu g}{L} \times \frac{0.1\,L}{2.0\,g} \times \frac{1\,mg}{1000\,\mu g} \times \frac{1000\,g}{1\,Kg} \times \frac{1}{0.28\%S} = 331.42\,mg/Kg$$

reported as 327 mg/Kg

Test America Pittsburgh
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METHOD DETECTION LIMITS

Client: TETRA TECH **SDG No.:** C0H250417

	Analyte	Mass	MDL ug/L	CRQL ug/L
ICPMS		**MDL Date:**	6/6/2009	
	Antimony	121	0.026	2
	Arsenic	75	0.18	1
	Beryllium	9	0.075	1
	Cadmium	111	0.070	1
	Chromium	52	0.06	2
	Copper	65	0.33	2
	Lead	208	0.038	1
	Nickel	60	0.1	1
	Selenium	82	0.50	5
	Silver	107	0.04	1
	Thallium	205	0.020	1
	Zinc	66	0.65	5

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Mercury	253.700	0.2	0.011	3/23/2009

Test America Pittsburgh

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LINEAR RANGES

Client: TETRA TECH **SDG No.:** C0H250417

Contract: **Lab Code:** STL Pitt **Case No.:** **SAS No.:**

Instrument ID: ICPMS **Date:** 8/8/2010

Analyte	LDR ug/L
Antimony	20000
Arsenic	4500
Beryllium	9000
Cadmium	13500
Chromium	13500
Copper	20000
Lead	20000
Nickel	13500
Selenium	4500
Silver	2500
Thallium	13500
Zinc	20000

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	6/28/2010

TestAmerica Pittsburgh ~~Metals Preparation Log~~ Mercury WAH 9-2-10

Batch No. 0245015

v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time -0430-0630	SDG -
Analyst william hoyle	Date -09-02-10	Lot Numbers C0H250417	
MS Hg Working CAL			
Lab Lot # -MET4564-10			
Analyst Sign: [signature]			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5370	1.20g	100ml	
L5371			
L5372			
L5374			
L5376			WAH 9-2-10
L5377			
L537V			
L537W			
L537W S			1ml MET4564-10
L537W D	↓		↓
L6FCN B	1.20g DIH20		WAH 9-2-10
L6FCN C	100ml	↓	MET4574-10
			WAH 9-2-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
#2 95°C	IP30 -1.0°C
WAH	9-2-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-2-10							

	Lot Number	Manufacturer	
Initial Digestion Vessel:	1005282	Env. Express	Pipet #: G10008
Final Digestion Vessel:	n/a	n/a	Balance #: P1856709
Filter Paper:	K1150821A	Whatman	Printed on: 02-Sep-10 6:11:23 AM

TestAmerica Pittsburgh — mercury ~~Metals~~ Preparation Log

Batch No. 0245021

WAH 9-2-10 v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time -0430-0630	SDG -
Analyst william hoyle	Date -09-02-10	Lot Numbers C0H180458	
MS Hg Working CAL			
Lab Lot # -MET4564-10			
Analyst Sign: william c hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5QT2	1.20g	100ml	WAH 9-2-10
L5QT2 S	↓	↓	1ml MET4564-10
L5QT2 D	↓	↓	↓
L5QT3	↓	↓	↓
L5QT4	↓	↓	↓
L5QTV	↓	↓	WAH 9-2-10
L5QTW	↓	↓	↓
L5QTX	↓	↓	↓
L6FC4 B	1.20g DI H2O	↓	↓
L6FC4 C	100ml	↓	MET4575-10
			WAH 9-2-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Minimum digestion times have been met (analyst initials):

Hot Plate/Block Temp	Correction Factor
#2 95°C	IP30 -1.0°C
WAH	9-2-10

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-2-10							

	Lot Number	Manufacturer
Initial Digestion Vessel:	1005282	Env. Express
Final Digestion Vessel:	n/a	n/a
Filter Paper:	K11502821A	Whatman

Pipet #: G10008
Balance #: P1856709
Printed on: 02-Sep-10 6:18:05 AM

TestAmerica Pittsburgh — Mercury ~~Metals~~ Preparation Log

Batch No. 0245023

WAH 9-2-10 v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Solid	Start Time -0430-0630	SDG -
Analyst william hoyle	Date -09-02-10	Lot Numbers A0H250486, C0H120570, C0H240535, C0H260569, C0H300426, C0H310563, C0I010410	
MS Hg Working CAL			
Lab Lot # -MET4564-10			
Analyst Sign: William a Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L53LE	0.6g	100ml	
L53LG			
L53LJ			
L53LM			WAH 9-2-10
L53LQ			
L53MJ			
L54RH			
L54RH S			1ml MET 4564-10
L54RH D			↓
L54TJ			
L54TL			
L54TN			
L54TR			
L5625			
L599K			
L5VW0			WAH 9-2-10
L6ACD			
L6AF4			
L6AHJ			
L6AHL			
L6DD3			
L6DX8	↓		
L6FC8 B	0.6g DI H2O		
L6FC8 C	100ml	↓	MET4576-10
			WAH 9-2-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp	Correction Factor
P3 95°C	IP31 -1.0°C
WAH	9-2-10

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-2-10							

	Lot Number	Manufacturer
Initial Digestion Vessel:	1005282	Env. Express
Final Digestion Vessel:	n/a	n/a
Filter Paper:	K11502821A	Whatman

Pipet #: G10008
Balance #: P1856709
Printed on: 02-Sep-10 6:12:24 AM

TestAmerica Pittsburgh — Mercury ~~Metals~~ Preparation Log

WAH 9-2-10

Batch No. 0245024

v1.0.5 - Last Revised 12/30/2005

Method 7471A	Matrix Waste	Start Time -0430-0630	SDG -
Analyst william hoyle	Date -09-02-10	Lot Numbers	
MS Hg Working CAL		C0H300440, C0H310470	
Lab Lot # -MET4564-10			
Analyst Sign: William E Hoyle			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L6AJC	0.6ml	100ml	
L6CPL	↓	↓	WAH 9-2-10
L6FDA B	0.6ml DI H2O	↓	
L6FDA C	100ml	↓	MET4577-10
L6FDA L	↓	↓	↓ 4578-10

WAH 9-2-10

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Reagents:
5.0ml KMnO4, MET4450-10, Stnds. Log
8.0ml K2S2O4, MET4490-10, Stnds. Log
6.0ml Clear. Sol., MET4496-10, Stnds. Log
Stannous Chloride, MET 4489-10, Stnds. Log
2.0ml HNO3, J11045, Mallinckrodt
5.0ml H2SO4, J04F08, Mallinckrodt

Hot Plate/Block Temp		Correction Factor	
#4	95°C	IP33	-1.0°C
WAH	9-2-10		

Minimum digestion times have been met (analyst initials):

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
			WAH 9-2-10							

	Lot Number	Manufacturer	Pipet #: G10008
Initial Digestion Vessel:	1005282	Env. Express	Balance #: P1856709
Final Digestion Vessel:	n/a	n/a	Printed on: 02-Sep-10 6:12:54 AM
Filter Paper:	K11502821A	Whatman	

TestAmerica [illegible]sburgh

Mercury Digestion Log v2 8/11/08

Method(s) 747/A

Logbook ID: MT35[illegible]

Digestion Start Time: 04:30 | Digestion End Time: 06:30 | Filter Paper Manufacturer / Lot#: K/1592821A WHATMAN | Balance ID: P/856709

	Sample ID	Batch	Date Received	Prep Date	Prepared by	Wt/ Volume	Sample Type	Run Date	Comments
1.	STD0	N/A	N/A	9-2-10	WAH	100ml	WATER	9-2-10	N/A
2.	STD1								MET 4566-10
3.	STD2								4567-10
4.	STD3								4568-10
5.	STD4								4569-10
6.	STD5								4570-10
7.	ICV								4571-10
8.	ICB								N/A
9.	CRA/RLV								MET 4572-10
10.	CCV								4573-10
11.	CCB								N/A
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.					WAH	9-2-10			
20.									
21.									
22.									
23.									
24.									
25.									

Reagents	Volume (mL)	Reference Number	
HNO3	2.0ml	MALLINCKRODT	J11045
H2SO4	5.0ml		J04F08
KMNO4	5.0ml	MET 4450-10	
K2S2O4	8.0ml	4490-10	
NaCL NH2OH Additional volumes indicated per sample as necessary	6.0ml	4486-10	
Stannous Chloride	N/A	4489-10	

Hot Block Number: #1 JP29 4.0°C

Hot Block Temperature: 95 °C

Waterbath temperature:

Thermometer ID:

Extract(s) (record line # from above)	Date	Time	Extract(s) Received	Analyst	Location	Date	Time	Extract(s) Relinquished	Analyst	Location
			WAH 9-2-10							

printed on: 28-Jun-10 6:32:17 AM

*-Sample required filtration step after digestion

(3001 - 3246)

3243

COH250417

TestAmerica Pittsburgh — Metals Preparation Log

Batch No. 0245104

v1.0.5 - Last Revised 12/30/2005

Method 6020 Soil	Matrix Solid	Start Time 0950	SDG
Analyst Caitlyn Haluck	Date 9/2/10	Lot Numbers C0H170507, C0H250417	
MS TAPITT-MS-A, TAPITT-MS-C, TAPITT-MS-ICPMS			
Lab Lot # -met3707-10, met4267-10, met2846-10			
Analyst Sign: Caitlyn Haluck			

Sample ID	Initial Wt/Vol g/mL	Final Vol mL	Comments
L5370	2.0g	100mL	
L5371			
L5372			
L5374			CH 9.2.10
L5376			
L5377			
L537V			
L537W			
L5N14			+1.0mL MSA, MS-C, MS-ICP
L5N14 S			↓
L5N14 D			9.2.10 CH
L6FJV B	2.0g chips		+1.0mL MS-A, MS-C, MS-ICP
L6FJV C			
			9.2.10 CH

SAMPLE CODING: B-Blank C-Check L-Check Duplicate S-Matrix Spike D-Matrix Spike Duplicate X-Sample Duplicate

NOTE: Samples marked with an asterisk (*) required filtration after digestion and prior to analysis
Samples marked with a plus sign (+) required additional Conc.HNO3 in digestion process, brown fumes were observed

Hot Plate/Block Temp	Correction Factor
#10 194°C	±0.0°C

Reagents:
5 ml Optima Conc HNO3, 6901 J08N59, JT Baker
10 ml 1:1 Optima HNO3, MET 4487-10, Stds. Log
10ml Opt. Conc. HCl, V078 J02N57, Mallinckrodt
10 ml 30% H2O2, 3408 H47A18, Mallinckrodt

Minimum digestion times have been met (analyst initials): CH

Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location
All above	9.2.10	1300	CH	Prep		9-2-10	1430	CH		AA
All Above	9-5-10	0905	WRE		AA	9-6-10	1450	WRE		AA

	Lot Number	Manufacturer
Initial Digestion Vessel:	1005282	Environmental Express
Final Digestion Vessel:	100504	Corning
Filter Paper:	K11597490	Whatman

Pipet #: 03F95602
Balance #: P1856710
Printed on: 02-Sep-10 10:52:48 AM

Date: 9/2/10

MET-154-0245104

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0I020000-015 **Prep Batch #...:** 0245015						
Mercury	ND	0.016	mg/kg	SW846 7471A	09/02/10	L6FCN1AA
		Dilution Factor: 0.5				
		Analysis Time..: 08:15		Analyst ID.....: 031043	Instrument ID..: HGH	
MB Lot-Sample #: C0I020000-104 **Prep Batch #...:** 0245104						
Antimony	**0.0038 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L6FJV1AX**
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AD
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AF
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AH
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.036 B**	**0.10**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L6FJV1AK**
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	0.10	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AL
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	**0.0078 B**	**0.050**	**mg/kg**	**SW846 6020**	**09/02-09/05/10**	**L6FJV1AU**
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AT
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	0.25	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AV
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AA
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	ND	0.050	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1AW
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	0.25	mg/kg	SW846 6020	09/02-09/05/10	L6FJV1A1
		Dilution Factor: 0.5				
		Analysis Time..: 12:28		Analyst ID.....: 400149	Instrument ID..: ICP	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: C0I020000-015 **Prep Batch #...:** 0245015					
Mercury	99	(80 - 120)	SW846 7471A	09/02/10	L6FCN1AC
		Dilution Factor: 0.5	Analysis Time..: 08:17	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA			
LCS Lot-Sample#: C0I020000-104 **Prep Batch #...:** 0245104					
Silver	98	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1A2
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Arsenic	95	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1A4
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Beryllium	96	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1A6
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Cadmium	98	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1A8
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Chromium	96	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CA
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Copper	104	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CC
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Nickel	102	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CJ
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Lead	106	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CK
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Selenium	99	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CL
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	103	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CM
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Antimony	96	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CN
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			
Zinc	104	(80 - 120)	SW846 6020	09/02-09/05/10	L6FJV1CQ
		Dilution Factor: 0.5	Analysis Time..: 12:33	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID
Date Sampled...: 08/11/10 **Date Received..:** 08/17/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H170507-007 **Prep Batch #...:** 0245104 Not our Sample						**% Moisture.....:** 61	
Antimony	49 N	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141D0
	49 N	(75 - 125)	0.73	(0-20)	SW846 6020	09/02-09/05/10	L5N141D1
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Arsenic	92	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141CU
	94	(75 - 125)	0.54	(0-20)	SW846 6020	09/02-09/05/10	L5N141CV
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Beryllium	86	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141C0
	88	(75 - 125)	2.3	(0-20)	SW846 6020	09/02-09/05/10	L5N141C1
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Cadmium	89	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141C4
	91	(75 - 125)	2.2	(0-20)	SW846 6020	09/02-09/05/10	L5N141C5
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Chromium	98	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141C8
	107	(75 - 125)	3.4	(0-20)	SW846 6020	09/02-09/05/10	L5N141C9
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Copper	91	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141DA
	94	(75 - 125)	1.9	(0-20)	SW846 6020	09/02-09/05/10	L5N141DC
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Lead	NC	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141DR
	NC	(75 - 125)		(0-20)	SW846 6020	09/02-09/05/10	L5N141DT
		Dilution Factor: 0.5					
		Analysis Time..: 12:48		Instrument ID..: ICPMS2		Analyst ID.....: 400149	
		MS Run #.....: 0245070					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID
Date Sampled...: 08/11/10 **Date Received..:** 08/17/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel	90	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141DP
	92	(75 - 125)	2.0	(0-20)	SW846 6020	09/02-09/05/10	L5N141DQ
		Dilution Factor: 0.5					
		Analysis Time..: 12:48			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Selenium	99	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141DU
	93	(75 - 125)	3.6	(0-20)	SW846 6020	09/02-09/05/10	L5N141DV
		Dilution Factor: 0.5					
		Analysis Time..: 12:48			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Silver	88	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141CP
	90	(75 - 125)	1.9	(0-20)	SW846 6020	09/02-09/05/10	L5N141CQ
		Dilution Factor: 0.5					
		Analysis Time..: 12:48			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Thallium	102	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141DW
	95	(75 - 125)	6.7	(0-20)	SW846 6020	09/02-09/05/10	L5N141DX
		Dilution Factor: 0.5					
		Analysis Time..: 12:48			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0245070					
Zinc	96	(75 - 125)			SW846 6020	09/02-09/05/10	L5N141D4
	101	(75 - 125)	1.5	(0-20)	SW846 6020	09/02-09/05/10	L5N141D5
		Dilution Factor: 0.5					
		Analysis Time..: 12:48			Instrument ID..: ICPMS2	Analyst ID.....: 400149	
		MS Run #.....: 0245070					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C0H250417 **Matrix.....:** SOLID
Date Sampled...: 08/21/10 **Date Received..:** 08/24/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C0H250417-002 **Prep Batch #...:** 0245015							
						% Moisture.....: 66	
Mercury	122	(75 - 125)			SW846 7471A	09/02/10	L537W1AU
	112	(75 - 125)	4.5	(0-20)	SW846 7471A	09/02/10	L537W1AV

Dilution Factor: 0.5
Analysis Time..: 08:22 Instrument ID..: HGHYDRA Analyst ID.....: 031043
MS Run #.....: 0245008

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

Sample List

9-7-10

9/5/10

No	Label	Type	Weight	Rack	Row	Col	Height
1	STD1 MET4520-10 INT STD	Blank	1.000	0	1	1	155
2	STD2X MET4059-10	Fully Quant Standard	1.000	0	1	2	155
3	STD3X MET4060-10	Fully Quant Standard	1.000	0	1	3	155
4	ICV1 MET4061-10	QC Sample	1.000	0	1	5	155
5	ICB1	QC Sample	1.000	0	1	9	155
6	CRI MET4062-10	QC Sample	1.000	0	1	6	155
7	ICSA MET4063-10	QC Sample	1.000	0	1	7	155
8	ICSAB MET3848-10	QC Sample	1.000	0	1	8	155
9	CCV1-1 MET4282-10	QC Sample	1.000	0	1	4	155
10	CCB1	QC Sample	1.000	0	1	9	155
11	L5X2W/10	Unknown	1.000	1	1	2	155
12	L5X2WP50	Unknown	1.000	1	1	3	155
13	L50X4/100	Unknown	1.000	1	1	4	155
14	L50X5	Unknown	1.000	1	1	5	155
15	L50X6	Unknown	1.000	1	1	6	155
16	L6FJVB	Unknown	1.000	1	1	7	155
17	L6FJVC	Unknown	1.000	1	1	8	155
18	L5N14	Unknown	1.000	1	1	9	155
19	L5N14P5	Unknown	1.000	1	1	10	155
20	L5N14S	Unknown	1.000	1	1	11	155
21	CCV1-2	QC Sample	1.000	0	1	4	155
22	CCB2	QC Sample	1.000	0	1	9	155
23	L5N14D	Unknown	1.000	1	1	12	155
24	L537V	Unknown	1.000	1	2	1	155
25	L537W	Unknown	1.000	1	2	2	155
26	L5370	Unknown	1.000	1	2	3	155
27	L5371	Unknown	1.000	1	2	4	155
28	L5372	Unknown	1.000	1	2	5	155
29	L5374	Unknown	1.000	1	2	6	155
30	L5376	Unknown	1.000	1	2	7	155
31	L5377	Unknown	1.000	1	2	8	155
32	L6A4QCF	Unknown	1.000	1	2	9	155
33	CCV1-3	QC Sample	1.000	0	1	4	155
34	CCB3	QC Sample	1.000	0	1	9	155
35	L6A4QBF	Unknown	1.000	1	2	10	155
36	L5436F	Unknown	1.000	1	2	11	155
37	L5436P5F	Unknown	1.000	1	2	12	155
38	L5436SF	Unknown	1.000	1	3	1	155
39	L5436DF	Unknown	1.000	2	4	5	155
40	L544HF	Unknown	1.000	1	3	2	155
41	L544LF	Unknown	1.000	1	3	3	155
42	L545NF	Unknown	1.000	1	3	4	155
43	L545QF	Unknown	1.000	1	3	5	155
44	L5740F	Unknown	1.000	1	3	6	155
45	CCV1-4	QC Sample	1.000	0	1	4	155
46	CCB4	QC Sample	1.000	0	1	9	155
47	L5742F	Unknown	1.000	1	3	7	155
48	L5746F	Unknown	1.000	1	3	8	155
49	L5747F	Unknown	1.000	1	3	9	155
50	L5748F	Unknown	1.000	1	3	10	155
51	L575AF	Unknown	1.000	1	3	11	155
52	L575CF	Unknown	1.000	1	3	12	155
53	L575DF	Unknown	1.000	1	4	1	155
54	L575EF	Unknown	1.000	1	4	2	155
55	L575FF	Unknown	1.000	1	4	3	155
56	L575HF	Unknown	1.000	1	4	4	155
57	CCV1-5	QC Sample	1.000	0	1	4	155
58	CCB5	QC Sample	1.000	0	1	9	155
59	L575KF	Unknown	1.000	1	4	5	155
60	L58C0F	Unknown	1.000	1	4	6	155
61	L58C1F	Unknown	1.000	1	4	7	155
62	L6D4DB	Unknown	1.000	1	4	8	155
63	L6D4DC	Unknown	1.000	1	4	9	155
64	L5436	Unknown	1.000	1	4	10	155
65	L5436P5	Unknown	1.000	1	4	11	155
66	L5436S	Unknown	1.000	1	4	12	155
67	L5436D	Unknown	1.000	1	5	1	155

Test America Pittsburgh

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ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0H250417

ICP-MS Instrument ID: ICPMS Date: 9/5/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be_9	9.06218	0.73000	2.3900
Mg_24	23.955041	0.61000	1.1730
Mg_25	24.93583	0.61000	2.3330
Mg_26	25.93259	0.61000	2.3400
Co_59	58.903189	0.69000	1.0720
In_113	112.974404	0.73000	1.7580
In_115	114.97387	0.73000	0.8100
Ce_140	139.995441	0.75000	0.1430
Pb_206	206.044457	0.65000	0.5200
Pb_207	207.045876	0.67000	0.5420
Pb_208	208.046639	0.67000	0.4160

Comments:

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H250417

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			**ICV1 MET4061-10**						
	Antimony	0.0801	0.0800	100.1	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Arsenic	0.0805	0.0800	100.6	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Beryllium	0.0800	0.0800	100.0	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Cadmium	0.0778	0.0800	97.2	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Chromium	0.0774	0.0800	96.7	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Copper	0.0813	0.0800	101.6	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Lead	0.0780	0.0800	97.5	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Nickel	0.0797	0.0800	99.6	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Selenium	0.0804	0.0800	100.5	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Silver	0.0778	0.0800	97.2	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Thallium	0.0811	0.0800	101.4	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
	Zinc	0.0823	0.0800	102.9	90.0 - 110.0	MS	9/5/2010	11:25	M00905A, gen
CCV1			**CCV1-1 MET4282-10**						
	Antimony	0.0964	0.1000	96.4	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Arsenic	0.1006	0.1000	100.6	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Beryllium	0.1031	0.1000	103.1	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Cadmium	0.0993	0.1000	99.3	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Chromium	0.0963	0.1000	96.3	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Copper	0.1014	0.1000	101.4	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Lead	0.1046	0.1000	104.6	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Nickel	0.1003	0.1000	100.3	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Selenium	0.1008	0.1000	100.8	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Silver	0.0988	0.1000	98.8	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Thallium	0.1046	0.1000	104.6	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen
	Zinc	0.1043	0.1000	104.3	90.0 - 110.0	MS	9/5/2010	11:53	M00905A, gen

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0H250417

Initial Calibration Source: Inorganic **Instrument:** ICPMS

Continuing Calibration Source: HIPUR

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			CCV1-2						
	Antimony	0.0943	0.1000	94.3	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Arsenic	0.0998	0.1000	99.8	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Beryllium	0.0996	0.1000	99.6	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Cadmium	0.0994	0.1000	99.4	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Chromium	0.0978	0.1000	97.8	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Copper	0.1025	0.1000	102.5	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Lead	0.1041	0.1000	104.1	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Nickel	0.1019	0.1000	101.9	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Selenium	0.1014	0.1000	101.4	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Silver	0.1013	0.1000	101.3	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Thallium	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
	Zinc	0.1045	0.1000	104.5	90.0 - 110.0	MS	9/5/2010	12:56	M00905A, gen
CCV3			CCV1-3						
	Antimony	0.0945	0.1000	94.5	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Arsenic	0.1011	0.1000	101.1	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Beryllium	0.0980	0.1000	98.0	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Cadmium	0.0988	0.1000	98.8	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Chromium	0.0976	0.1000	97.6	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Copper	0.1039	0.1000	103.9	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Lead	0.1057	0.1000	105.7	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Nickel	0.1044	0.1000	104.4	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Selenium	0.1020	0.1000	102.0	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Silver	0.0992	0.1000	99.2	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Thallium	0.1053	0.1000	105.3	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen
	Zinc	0.1071	0.1000	107.1	90.0 - 110.0	MS	9/5/2010	13:56	M00905A, gen

Test America Pittsburgh
- 2b -
CRDL STANDARD FOR AA & ICP

Client: TETRA TECH

SDG No.: C0H250417

ICPMS Standard Source: HIPUR

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	True Value mg/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
CRDL1			**CRI MET4062-10**						
	Antimony	0.00196	0.00200	98.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Arsenic	0.00119	0.00100	119.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Beryllium	0.00092	0.00100	92.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Cadmium	0.00100	0.00100	100.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Chromium	0.00190	0.00200	95.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Copper	0.00197	0.00200	98.5	50 - 150	MS	9/5/2010	11:37	M00905A,
	Lead	0.00102	0.00100	102.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Nickel	0.00098	0.00100	98.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Selenium	0.00526	0.00500	105.2	50 - 150	MS	9/5/2010	11:37	M00905A,
	Silver	0.00106	0.00100	106.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Thallium	0.00109	0.00100	109.0	50 - 150	MS	9/5/2010	11:37	M00905A,
	Zinc	0.00496	0.00500	99.2	50 - 150	MS	9/5/2010	11:37	M00905A,

Test America Pittsburgh

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0H250417

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
ICB1			ICB1							
	Antimony	0.00004	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	11:33	M00905A, ge
	Arsenic	0.00012	+/-0.00100	U	0.00018	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Cadmium	-0.00005	+/-0.00100	U	0.00007	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Chromium	-0.00006	+/-0.00200	U	0.00006	0.00200	MS	9/5/2010	11:33	M00905A, ge
	Copper	-0.00019	+/-0.00200	U	0.00033	0.00200	MS	9/5/2010	11:33	M00905A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Nickel	-0.00003	+/-0.00100	U	0.00011	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Selenium	0.00041	+/-0.00500	U	0.00050	0.00500	MS	9/5/2010	11:33	M00905A, ge
	Silver	0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Thallium	0.00000	+/-0.00100	U	0.00002	0.00100	MS	9/5/2010	11:33	M00905A, ge
	Zinc	0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	11:33	M00905A, ge
CCB1			CCB1							
	Antimony	0.00023	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	12:00	M00905A, ge
	Arsenic	0.00008	+/-0.00100	U	0.00018	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Beryllium	0.00000	+/-0.00100	U	0.00008	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Chromium	-0.00005	+/-0.00200	U	0.00006	0.00200	MS	9/5/2010	12:00	M00905A, ge
	Copper	-0.00016	+/-0.00200	U	0.00033	0.00200	MS	9/5/2010	12:00	M00905A, ge
	Lead	-0.00005	+/-0.00100	J	0.00004	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Nickel	-0.00001	+/-0.00100	U	0.00011	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Selenium	0.00030	+/-0.00500	U	0.00050	0.00500	MS	9/5/2010	12:00	M00905A, ge
	Silver	0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Thallium	0.00001	+/-0.00100	U	0.00002	0.00100	MS	9/5/2010	12:00	M00905A, ge
	Zinc	0.00003	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	12:00	M00905A, ge

Test America Pittsburgh

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0H250417

Instrument: ICPMS

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.00026	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	13:03	M00905A, ge
	Arsenic	0.00017	+/-0.00100	U	0.00018	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Cadmium	-0.00005	+/-0.00100	U	0.00007	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Chromium	-0.00003	+/-0.00200	U	0.00006	0.00200	MS	9/5/2010	13:03	M00905A, ge
	Copper	-0.00021	+/-0.00200	U	0.00033	0.00200	MS	9/5/2010	13:03	M00905A, ge
	Lead	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Nickel	-0.00002	+/-0.00100	U	0.00011	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Selenium	0.00073	+/-0.00500	J	0.00050	0.00500	MS	9/5/2010	13:03	M00905A, ge
	Silver	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Thallium	0.00003	+/-0.00100	J	0.00002	0.00100	MS	9/5/2010	13:03	M00905A, ge
	Zinc	0.00007	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	13:03	M00905A, ge
CCB3			CCB3							
	Antimony	0.00034	+/-0.00200	J	0.00003	0.00200	MS	9/5/2010	14:03	M00905A, ge
	Arsenic	0.00022	+/-0.00100	J	0.00018	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Beryllium	0.00001	+/-0.00100	U	0.00008	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Cadmium	-0.00003	+/-0.00100	U	0.00007	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Chromium	0.00000	+/-0.00200	U	0.00006	0.00200	MS	9/5/2010	14:03	M00905A, ge
	Copper	-0.00019	+/-0.00200	U	0.00033	0.00200	MS	9/5/2010	14:03	M00905A, ge
	Lead	-0.00001	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Nickel	0.00005	+/-0.00100	U	0.00011	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Selenium	0.00078	+/-0.00500	J	0.00050	0.00500	MS	9/5/2010	14:03	M00905A, ge
	Silver	0.00000	+/-0.00100	U	0.00004	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Thallium	0.00004	+/-0.00100	J	0.00002	0.00100	MS	9/5/2010	14:03	M00905A, ge
	Zinc	0.00006	+/-0.00500	U	0.00065	0.00500	MS	9/5/2010	14:03	M00905A, ge

Test America Pittsburgh

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH **SDG No.:** C0H250417

ICS Source: EPA **Instrument ID:** ICPMS

Sample ID Analyte	WL/Mass	Result mg/L	Qual	True Value mg/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4063-10									
Antimony	121Sb	0.00044				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Arsenic	75As	0.00037				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Beryllium	9Be	0.00015				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Cadmium	111Cd	0.00082				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Chromium	52Cr	-0.00004				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Copper	65Cu	0.00275				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Lead	208Pb	0.00035				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Nickel	60Ni	0.00132				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Selenium	82Se	0.00052				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Silver	107Ag	0.00020				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Thallium	205Tl	0.00027				0.0 - 0.0	9/5/2010	11:41	M00905A, g
Zinc	66Zn	0.00486				0.0 - 0.0	9/5/2010	11:41	M00905A, g
ICSAB MET3848-10									
Antimony	121Sb	0.02013		0.02000	100.6	80 - 120%	9/5/2010	11:46	M00905A, g
Arsenic	75As	0.02085		0.02000	104.2	80 - 120%	9/5/2010	11:46	M00905A, g
Beryllium	9Be	0.01886		0.02000	94.3	80 - 120%	9/5/2010	11:46	M00905A, g
Cadmium	111Cd	0.02018		0.02000	100.9	80 - 120%	9/5/2010	11:46	M00905A, g
Chromium	52Cr	0.01857		0.02000	92.8	80 - 120%	9/5/2010	11:46	M00905A, g
Copper	65Cu	0.02264		0.02000	113.2	80 - 120%	9/5/2010	11:46	M00905A, g
Lead	208Pb	0.02065		0.02000	103.2	80 - 120%	9/5/2010	11:46	M00905A, g
Nickel	60Ni	0.02036		0.02000	101.8	80 - 120%	9/5/2010	11:46	M00905A, g
Selenium	82Se	0.05026		0.05000	100.5	80 - 120%	9/5/2010	11:46	M00905A, g
Silver	107Ag	0.01949		0.02000	97.4	80 - 120%	9/5/2010	11:46	M00905A, g
Thallium	205Tl	0.02033		0.02000	101.6	80 - 120%	9/5/2010	11:46	M00905A, g
Zinc	66Zn	0.02588		0.02500	103.5	80 - 120%	9/5/2010	11:46	M00905A, g

William a Hoyle 9-2-10

TEST2 Folder: G00902A Page 1793
08:07:46 02 Sep 2010 Protocol: hgppb

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: ICV6-1 Seq: 8 08:07:46 02 Sep 10 HG

Hg 2.39 ppb 12866 MET4571-10

*** Sample ID: ICB1 Seq: 9 08:09:22 02 Sep 10 HG

Hg -.006 ppb 59

*** Sample ID: CRA/RLV Seq: 10 08:10:58 02 Sep 10 HG

Hg .192 ppb 1122 MET4572-10

*** Sample ID: CCV6-1 Seq: 11 08:12:34 02 Sep 10 HG

Hg 4.98 ppb 26742 MET4573-10

*** Sample ID: CCB1 Seq: 12 08:14:10 02 Sep 10 HG

Hg -.009 ppb 43

*** Sample ID: L6FCNB Seq: 13 08:15:59 02 Sep 10 HG

Hg .005 ppb 122

*** Sample ID: L6FCNC Seq: 14 08:17:46 02 Sep 10 HG

Hg 2.47 ppb 13298 MET4574-10

*** Sample ID: L537V Seq: 15 08:19:25 02 Sep 10 HG

Hg .809 ppb 4420

*** Sample ID: L537W Seq: 16 08:21:02 02 Sep 10 HG

Hg 1.06 ppb 5751

*** Sample ID: L537WS Seq: 17 08:22:43 02 Sep 10 HG SP.REC. 122%

Hg 2.28 ppb 12268

*** Sample ID: L537WD Seq: 18 08:24:21 02 Sep 10 HG SP.REC. 112%

Hg 2.18 ppb 11779

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: L5370 Seq: 19 08:25:58 02 Sep 10 HG

Hg .232 ppb 1336

*** Sample ID: L5371 Seq: 20 08:27:37 02 Sep 10 HG

Hg .227 ppb 1310

*** Sample ID: L5372 Seq: 21 08:29:14 02 Sep 10 HG

Hg 1.46 ppb 7914

*** Sample ID: L5374 Seq: 22 08:30:51 02 Sep 10 HG

Hg 1.10 ppb 5996

*** Sample ID: CCV6-2 Seq: 23 08:32:29 02 Sep 10 HG

Hg 5.00 ppb 26818

*** Sample ID: CCB2 Seq: 24 08:34:11 02 Sep 10 HG

Hg -.020 ppb -14

*** Sample ID: L5376 Seq: 25 08:35:59 02 Sep 10 HG

Hg .242 ppb 1389

*** Sample ID: L5377 Seq: 26 08:37:47 02 Sep 10 HG

Hg .101 ppb 631

*** Sample ID: L6FC4B Seq: 27 08:40:16 02 Sep 10 HG

Hg .010 ppb 148

*** Sample ID: L6FC4C Seq: 28 08:41:57 02 Sep 10 HG

Hg 2.41 ppb 13009

MET 4575-10

*** Sample ID: L5QTV Seq: 29 08:43:37 02 Sep 10 HG

Hg 120. ppb 642808

VOID

VOID
OVER RANGE
WILL RERUN
FURTHER DILUTION
WAH
9-2-10

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00902A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4571-10

Element	WL/ Mass	True Conc	ICV6-1 9/2/2010 8:07 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.39	**95.6**								

5.11.0

Form 2A Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00902A.PRN **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET4573-10

Element	WL/ Mass	True Conc	CCV6-1 9/2/2010 8:12 AM Found	% Rec	CCV6-2 9/2/2010 8:32 AM Found	% Rec	CCV6-3 9/2/2010 8:54 AM Found	% Rec	CCV6-4 9/2/2010 9:15 AM X Found	% Rec	X CCV6-5 9/2/2010 9:36 AM Found	% Rec
Mercury	253.7	5.0	4.98	**99.6**	5.00	**100.0**	4.96	**99.2**	5.00	**100.0**	4.97	**99.4**

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00902A.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4572-10

Element	WL/ Mass	True Conc	CRA/RLV 9/2/2010 8:10 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.19	**96.0**								

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00902A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 9/2/2010 8:09 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U								

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00902A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 9/2/2010 8:14 AM Found	Q	CCB2 9/2/2010 8:34 AM Found	Q	CCB3 9/2/2010 8:56 AM Found	Q	CCB4 9/2/2010 9:17 AM Found	Q	CCB5 9/2/2010 9:38 AM Found	Q
Mercury	253.7	0.2	0.0	U	**0.0**	**B**	0.0	U	0.0	U	0.0	U

5.11.0

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

Tetra Tech Middle River, MD

TOC

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	EPA Lloyd Kahn
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H250417
Matrix:	SOLID	**Date/Time Received:**	8/31/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
INTRA-LAB QC	001 DUP	L6A7X1CC	87500	mg/kg	5080	8/31/2010 - 9/1/2010 18:50	0243229	9.4 / 20
BLK - C0H310000229B	229 MB	L6CF71AA	ND	mg/kg	2000	8/31/2010 - 9/1/2010 16:11	0243229	

Tetra Tech Middle River, MD

TOC

Lab Name: TESTAMERICA PITTSBURGH **Method:** EPA Lloyd Kahn

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0H310000

Matrix: SOLID **Date/Time Received:** 8/31/2010 10:00:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6CF71AC	105	75 - 125	8/31/2010 - 9/1/2010 16:25	0243229	3.0 / 20
DUPLICATE CHECK	LCSD	L6CF71AD	102	75 - 125	8/31/2010 - 9/1/2010 16:40	0243229	3.0 / 20
LAB MS/MSD	MS	L6A7X1A9	108	75 - 125	8/31/2010 - 9/1/2010 18:07	0243229	17 / 20
LAB MS/MSD	MSD	L6A7X1CA	61 N	75 - 125	8/31/2010 - 9/1/2010 17:52	0243229	17 / 20

Not GW Sample

	A	B	C	D	E	I	J	K	L	M
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12	Sample	Data File	Date	Time	Weight	Conc. %	Avg Conc. mg/kg	RPD %	Higher Weight	Dilution Factor
13	CCB	A090110012	09/01/2010	15:39	20	0.0000				
14	CCV	A090110013	09/01/2010	15:47	100	1.0514				
15	L6CF71AA	A090110014	09/01/2010	16:11	10	0.0000	0.00	0.0000	10	2.0000
16	L6CF71AA	A090110015	09/01/2010	16:18	10	0.0000				
17	L6CF71AC	A090110016	09/01/2010	16:25	10.1	2.4580	23980.87	4.9992	10.1	1.9802
18	L6CF71AC	A090110017	09/01/2010	16:32	9.5	2.3381				
19	L6CF71AD	A090110018	09/01/2010	16:40	10.8	2.3687	23279.08	3.5017	10.8	1.8519
20	L6CF71AD	A090110019	09/01/2010	16:47	10.4	2.2871				
21	L537V1AC	A090110020	09/01/2010	16:54	9.4	0.9156	9090.07	1.4434	9.8	2.0408
22	L537V1AC	A090110021	09/01/2010	17:01	9.8	0.9024				
23	L53721AC	A090110022	09/01/2010	17:09	10.5	1.0061	9962.87	1.9758	10.9	1.8349
24	L53721AC	A090110023	09/01/2010	17:16	10.9	0.9864				
25	L583V1AA	A090110024	09/01/2010	17:23	10.4	0.6125	6312.58	-5.9344	10.5	1.9048
26	L583V1AA	A090110025	09/01/2010	17:30	10.5	0.6508				
27	L6A7X1A6	A090110026	09/01/2010	17:38	10.6	3.5381	36329.36	-5.2225	10.6	1.8868
28	L6A7X1A6	A090110027	09/01/2010	17:45	10.5	3.7278				
29	L6A7X1CA	A090110028	09/01/2010	17:52	10.8	5.0613	50557.44	0.2197	10.8	1.8519
30	L6A7X1CA	A090110029	09/01/2010	17:59	9.7	5.0502				
31	L6A7X1A9	A090110030	09/01/2010	18:07	10.8	4.9226	60035.28	-36.0099	10.8	1.8519
32	L6A7X1A9	A090110031	09/01/2010	18:14	9.5	7.0845				
33	RINSE	A090110032	09/01/2010	18:21	1	0.0000				
34	RINSE	A090110033	09/01/2010	18:28	1	0.0000				
35	CCB	A090110034	09/01/2010	18:36	20	0.0000				
36	CCV	A090110035	09/01/2010	18:43	100	0.9185				
37	L6A7X1CC	A090110036	09/01/2010	18:50	10.4	3.3700	33075.83	3.7713	10.4	1.9231
38	L6A7X1CC	A090110037	09/01/2010	18:57	10.3	3.2452				
39	L6A8A1AH	A090110038	09/01/2010	19:05	10.7	2.6262	26011.60	1.9245	10.7	1.8692
40	L6A8A1AH	A090110039	09/01/2010	19:12	10.7	2.5761				
41	L6A8C1AH	A090110040	09/01/2010	19:19	10.2	4.2790	43423.62	-2.9176	10.9	1.8349
42	L6A8C1AH	A090110041	09/01/2010	19:26	10.9	4.4057				
43	L6A8D1AH	A090110042	09/01/2010	19:34	11.1	3.2645	34947.49	-13.1757	11.1	1.8018
44	L6A8D1AH	A090110043	09/01/2010	19:41	11.1	3.7250				
45	L6A8F1A6	A090110044	09/01/2010	19:48	9.6	4.4986	45370.35	-1.6964	10.1	1.9802
46	L6A8F1A6	A090110045	09/01/2010	19:55	10.1	4.5755				
47	L6A8J1AH	A090110046	09/01/2010	20:03	10.9	4.6803	47254.94	-1.9140	10.9	1.8349
48	L6A8J1AH	A090110047	09/01/2010	20:10	10.6	4.7707				
49	L6A8K1A6	A090110048	09/01/2010	20:17	9.6	1.5292	16074.32	-9.7285	9.6	2.0833
50	L6A8K1A6	A090110049	09/01/2010	20:24	9.5	1.6856				
51	L6A8M1AH	A090110050	09/01/2010	20:32	10.7	3.5592	36665.42	-5.8532	11.2	1.7857
52	L6A8M1AH	A090110051	09/01/2010	20:39	11.2	3.7788				
53	L6A8P1AU	A090110052	09/01/2010	20:46	11.9	1.5092	13562.76	22.5470	11.9	1.6807
54	L6A8P1AU	A090110053	09/01/2010	20:53	11.7	1.2034				
55	RINSE	A090110054	09/01/2010	21:01	1	0.0000				
56	RINSE	A090110055	09/01/2010	21:08	1	0.0000				
57	CCB	A090110056	09/01/2010	21:15	20	0.0000				
58	CCV	A090110057	09/01/2010	21:22	100	0.9913				
59	L6A8Q1AU	A090110058	09/01/2010	21:30	9.9	2.2205	22317.28	-1.0080	9.9	2.0202
60	L6A8Q1AU	A090110059	09/01/2010	21:37	9.4	2.2430				
61	L6A8R1A6	A090110060	09/01/2010	21:44	10.1	1.5325	21250.04	-55.7665	10.1	1.9802
62	L6A8R1A6	A090110061	09/01/2010	21:51	9.1	2.7175				
63	RINSE	A090110062	09/01/2010	21:59	1	0.0000				
64	RINSE	A090110063	09/01/2010	22:06	1	0.0000				
65	CCB	A090110064	09/01/2010	22:13	20	0.0000				
66	CCV	A090110065	09/01/2010	22:20	100	0.9541				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lloyd Kahn Sequence Log

Analyst: wesoloskim
Location: Pittsburgh

C0H250417

CCV STD# WC0649-10 LCS STD# WC3685-10 Prep Date 8/31/2010 Batch# 0243229

Sample ID	# Hold	Weight mg	Sample ID	#	Weight mg	Sample ID	#	Weight mg
:CB			C0H310411-1S	18	9.5 + 9.9	C0H310411-9		11.9
:CV			C0H310411-1X		10.4	C0H310411-9		11.2
:0H310000-229B			C0H310411-1X		10.3	C0H310411-10		9.9
:0H310000-229B			CCB			C0H310411-10	40	9.4
:0H310000-229C		10.1	CCV 2nd			C0H310411-11	41	10.1
:0H310000-229C		9.5	C0H310411-2	23	10.2	C0H310411-11	42	9.1
:0H310000-229L		10.8	C0H310411-2		10.2	CCB		
:0H310000-229L		10.4	C0H310411-3		10.2	CCV		
:0H250417-1		9.4	C0H310411-3	26	10.9			
0H250417-1		9.8	C0H310411-4		11.1			
0H250417-5		10.5	C0H310411-4	28	11.1			
0H250417-5		10.9	C0H310411-5		9.6			
0H280435-2		10.4	C0H310411-5		10.1			
0H280435-2		10.5	C0H310411-6		10.9			
0H310411-1		10.6	C0H310411-6	32	10.6			
0H310411-1		10.5	C0H310411-7		9.6			
0H310411-1D		10.8 + 10.5	C0H310411-7		9.5			
0H310411-1D	16	9.7 + 10.3	C0H310411-8		10.2			
0H310411-1S	17	10.8 + 9.5	C0H310411-8	36	11.2			

4150

(4001 - 4152)

Date Printed: 8/31/2010 1:18:48PM

Tetra Tech Middle River, MD

Percent Solids

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SM20 2540G
Lot Number: C0H250417

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
MARSHY POINT-SS	C0H250417 001	L537V1AA	26.5	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
MARSHY POINT-01	C0H250417 002	L537W1AA	34.4	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
MARSHY POINT-02	C0H250417 003	L53701AA	36.2	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
MARSHY POINT-04	C0H250417 004	L53711AA	37.4	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
BOWLEYS QUARTERS-SS	C0H250417 005	L53721AA	28.3	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
BOWLEYS QUARTERS-01	C0H250417 006	L53741AA	31.5	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
BOWLEYS QUARTERS-02	C0H250417 007	L53761AA	40.4	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123
BOWLEYS QUARTERS-04	C0H250417 008	L53771AA	68.2	%	0.0	1.0	1	8/27/2010 - 8/28/2010 09:01	0239123

Tetra Tech Middle River, MD

Percent Solids

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 2540G
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0H250417
Matrix:	SOLID	**Date/Time Received:**	8/19/2010 9:30:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
INTRA-LAB QC	001 DUP	L5V9G1AF	99.8	%	1.0	8/27/2010 - 8/28/2010 09:01	0239123	0.16 / 20

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**NOVEMBER 2, 2010**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOC/PAH/PCB**
MIDDLE RIVER CENTER
FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) - C0I020508

SAMPLES: 1/Pore Water/VOC

PW-01 Composite

10/Pore Water/PAH/PCB

PW-03 0-6"	PW-03 18-30"	PW-03 6-18"	PW-04 0-6"	PW-04 18-30"
PW-04 6-18"	PW-05 0-6"	PW-05 18-30"	PW-05 6-18"	Rinsate Blank

Overview

The sample set for Middle River Center, SDG C0I020508, consists of one (1) pore water environmental sample analyzed for volatile organic compounds (VOC). Ten (10) environmental pore water samples were analyzed for polycyclic aromatic hydrocarbons (PAH), plus 1,4-dioxane, and polychlorinated biphenyls (PCBs). There are no field duplicate pairs contained within this SDG.

The samples were collected on August 22, 2010 and analyzed by Test America. VOC analysis followed SW-846 Method 8260B, PAH Method 8270C, and PCBs Method 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial and continuing calibration results, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, matrix spike/ matrix spike duplicate recoveries, laboratory control standard recoveries, detection limits, compound quantitation and compound identification. Areas of concern with respect to data quality are listed below.

Major

- The initial calibration relative response factor (RRF) for tert-butyl alcohol on August 3, 2010 and continuing calibration on September 13, 2010 @ 11:23 on instrument A3UX16 was less than the 0.05 quality control limit. The nondetected tert-butyl alcohol result in sample PW-01 Composite was qualified as rejected (UR).

Minor

- The continuing calibration percent difference (%D) for bromomethane was greater than the 50% quality control limit on September 13, 2010 @ 11:23. The nondetected bromomethane result in sample PW-01 Composite was qualified as estimated (UJ).

- The continuing calibration %D for acetone was greater than the 25% quality control limit on September 13, 2010 @ 11:23. The positive acetone result in sample PW-01 Composite was qualified as estimated (J).

- The sampling date on the chain of custody (COC) does not match the sampling date on the form 1s. The samples were collected as sediments. The laboratory centrifuged the samples and analyzed the supernatant. The sampling date on the form 1s reflects the date samples were centrifuged. The samples were extracted outside of hold time for PAHs and PCBs. The VOC analysis took place outside of hold time. All sample positive and nondetected PAH and PCB results were qualified as estimated (J) and (UJ), respectively. VOC results were qualified as biased low (L) and (UL) because they were analyzed 22 days after collection.

Notes

The samples included in this SDG represent core samples collected on August 22, 2010. The core samples were separated into three incremental sections and centrifuged. Pore water from each section was analyzed by the laboratory for the fraction marked on the COC record.

The rinsate blank contained phenanthrene in the PAH fraction. No action was taken on the detection of this compound in the rinsate blank.

The percent recovery (%R) of surrogate nitrobenzene-d5 in sample PW-05 18-30" was less than the lower quality control limit but greater than 10%. No action was taken on this single surrogate %R noncompliance.

The laboratory did not calculate a relative percent difference (RPD) between columns for positive PCB sample results. The data reviewer calculated the RPDs and all of the RPDs were within acceptable criterion. A table listing the RPD for positive PCB detections is located in Appendix C.

VOC fraction analysis was not listed on the COC. The rinse blank was also not written on the COC. This item is noted for completeness.

The VOC method blank contained hexachlorobutadiene and 1,2,3-trichlorobenzene. No action was required because both analytes were non-detected in the environmental sample.

Executive Summary

Laboratory Performance: RRF for tert-butyl alcohol was less than the quality control limit resulting in the rejection of data. The continuing calibration %Ds for bromomethane and acetone exceeded quality control limits resulting in the qualification of data. All samples were qualified in every fraction due to hold time exceedances.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

Appendix A

Qualified Analytical Results

PROJ_NO: 02903	NSAMPLE	PW-01 Composite
SDG: C0I020508	LAB_ID	C0I020508023
FRACTION: OV	SAMP_DATE	9/8/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.46	UL	H
1,1,1-TRICHLOROETHANE	0.44	UL	H
1,1,2,2-TETRACHLOROETHANE	0.36	UL	H
1,1,2-TRICHLOROTRIFLUOROETHANE	0.56	UL	H
1,1-DICHLOROETHANE	0.3	UL	H
1,1-DICHLOROETHENE	0.38	UL	H
1,1-DICHLOROPROPENE	0.26	UL	H
1,2,3-TRICHLOROBENZENE	0.34	UL	H
1,2,3-TRICHLOROPROPANE	0.86	UL	H
1,2,3-TRIMETHYLBENZENE	0.012	UL	H
1,2,4-TRICHLOROBENZENE	0.3	UL	H
1,2,4-TRIMETHYLBENZENE	0.24	UL	H
1,2-DIBROMO-3-CHLOROPROPANE	1.3	UL	H
1,2-DIBROMOETHANE	0.48	UL	H
1,2-DICHLOROBENZENE	0.26	UL	H
1,2-DICHLOROETHANE	0.44	UL	H
1,2-DICHLOROPROPANE	0.36	UL	H
1,3-DICHLOROBENZENE	0.28	UL	H
1,3-DICHLOROPROPANE	0.32	UL	H
1,4-DICHLOROBENZENE	0.26	UL	H
2,2-DICHLOROPROPANE	0.26	UL	H
2-BUTANONE	7.1	J	HP
2-CHLOROETHYL VINYL ETHER	2	UL	H
2-CHLOROTOLUENE	0.22	UL	H
2-HEXANONE	0.82	UL	H
4-CHLOROTOLUENE	0.36	UL	H
4-ISOPROPYLTOLUENE	0.24	UL	H
4-METHYL-2-PENTANONE	0.64	UL	H
ACETONE	46	J	CH
BENZENE	0.26	UL	H
BROMOBENZENE	0.26	UL	H
BROMOCHLOROMETHANE	0.58	UL	H
BROMODICHLOROMETHANE	0.3	UL	H
BROMOFORM	1.3	UL	H
BROMOMETHANE	0.82	UJ	CH
CARBON DISULFIDE	0.26	UL	H

PROJ_NO: 02903	NSAMPLE	PW-01 Composite
SDG: C0I020508	LAB_ID	C0I020508023
FRACTION: OV	SAMP_DATE	9/8/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
CARBON TETRACHLORIDE	0.26	UL	H
CHLOROBENZENE	0.3	UL	H
CHLORODIBROMOMETHANE	0.36	UL	H
CHLOROETHANE	0.58	UL	H
CHLOROFORM	0.32	UL	H
CHLOROMETHANE	0.6	UL	H
CIS-1,2-DICHLOROETHENE	0.34	UL	H
CIS-1,3-DICHLOROPROPENE	0.28	UL	H
DIBROMOMETHANE	0.56	UL	H
DICHLORODIFLUOROMETHANE	0.62	UL	H
DIISOPROPYL ETHER	3	UL	H
ETHYL TERT-BUTYL ETHER	0.22	UL	H
ETHYLBENZENE	0.34	UL	H
HEXACHLOROBUTADIENE	0.6	UL	H
ISOPROPYLBENZENE	0.26	UL	H
M+P-XYLENES	0.48	UL	H
METHYL TERT-BUTYL ETHER	0.34	UL	H
METHYLENE CHLORIDE	6.7	L	H
NAPHTHALENE	0.48	UL	H
N-BUTYLBENZENE	0.24	UL	H
N-PROPYLBENZENE	0.28	UL	H
O-XYLENE	0.28	UL	H
SEC-BUTYLBENZENE	0.26	UL	H
STYRENE	0.22	UL	H
TERT-AMYL METHYL ETHER	0.13	UL	H
TERT-BUTYLBENZENE	0.26	UL	H
TERTIARY-BUTYL ALCOHOL	7.8	UR	C
TETRACHLOROETHENE	0.58	UL	H
TOLUENE	0.26	UL	H
TOTAL XYLENES	0.56	UL	H
TRANS-1,2-DICHLOROETHENE	0.38	UL	H
TRANS-1,3-DICHLOROPROPENE	0.38	UL	H
TRICHLOROETHENE	0.34	UL	H
TRICHLOROFLUOROMETHANE	0.42	UL	H
VINYL ACETATE	0.38	UL	H
VINYL CHLORIDE	0.44	UL	H

PROJ_NO: 02903 SDG: C0I020508 FRACTION: PAH MEDIA: WATER	NSAMPLE	PW-03 0-6			PW-03 18-30			PW-03 6-18			PW-04 0-6		
	LAB_ID	C0I020508007			C0I020508009			C0I020508008			C0I020508010		
	SAMP_DATE	9/7/2010			9/7/2010			9/7/2010			9/8/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	UJ	H	0.36	UJ	H	0.36	UJ	H	0.36	UJ	H
ACENAPHTHENE		0.11	J	HP	0.12	J	HP	0.036	UJ	H	0.036	UJ	H
ACENAPHTHYLENE		0.038	UJ	H	0.038	UJ	H	0.038	UJ	H	0.038	UJ	H
ANTHRACENE		0.052	J	HP	0.041	J	HP	0.038	UJ	H	0.038	UJ	H
BENZO(A)ANTHRACENE		0.037	UJ	H	0.037	UJ	H	0.037	UJ	H	0.037	UJ	H
BENZO(A)PYRENE		0.034	UJ	H	0.034	UJ	H	0.034	UJ	H	0.034	UJ	H
BENZO(B)FLUORANTHENE		0.039	UJ	H	0.039	UJ	H	0.039	UJ	H	0.039	UJ	H
BENZO(G,H,I)PERYLENE		0.038	UJ	H	0.038	UJ	H	0.038	UJ	H	0.038	UJ	H
BENZO(K)FLUORANTHENE		0.14	UJ	H	0.14	UJ	H	0.14	UJ	H	0.14	UJ	H
CHRYSENE		0.035	UJ	H	0.035	UJ	H	0.035	UJ	H	0.035	UJ	H
DIBENZO(A,H)ANTHRACENE		0.039	UJ	H	0.039	UJ	H	0.039	UJ	H	0.039	UJ	H
FLUORANTHENE		0.91	J	H	0.84	J	H	0.85	J	H	0.04	UJ	H
FLUORENE		0.054	UJ	H	0.12	J	HP	0.11	J	HP	0.13	J	HP
INDENO(1,2,3-CD)PYRENE		0.05	UJ	H	0.05	UJ	H	0.05	UJ	H	0.05	UJ	H
NAPHTHALENE		0.035	UJ	H	0.035	UJ	H	0.035	UJ	H	0.074	J	HP
PHENANTHRENE		0.55	J	H	0.39	J	HP	0.34	J	HP	0.44	J	HP
PYRENE		0.16	J	HP	0.1	J	HP	0.039	UJ	H	0.039	UJ	H

PROJ_NO: 02903 SDG: C0I020508 FRACTION: PAH MEDIA: WATER	NSAMPLE	PW-04 18-30			PW-04 6-18			PW-05 0-6			PW-05 18-30		
	LAB_ID	C0I020508012			C0I020508011			C0I020508013			C0I020508015		
	SAMP_DATE	9/8/2010			9/8/2010			9/9/2010			9/9/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	UJ	H	0.36	UJ	H	0.36	UJ	H	0.36	UJ	H
ACENAPHTHENE		0.11	J	HP	0.11	J	HP	0.17	J	HP	0.093	J	HP
ACENAPHTHYLENE		0.038	UJ	H	0.038	UJ	H	0.038	UJ	H	0.038	UJ	H
ANTHRACENE		0.038	J	HP	0.038	UJ	H	0.038	UJ	H	0.038	UJ	H
BENZO(A)ANTHRACENE		0.037	UJ	H	0.037	UJ	H	0.037	UJ	H	0.037	UJ	H
BENZO(A)PYRENE		0.034	UJ	H	0.034	UJ	H	0.034	UJ	H	0.034	UJ	H
BENZO(B)FLUORANTHENE		0.039	UJ	H	0.039	UJ	H	0.039	UJ	H	0.039	UJ	H
BENZO(G,H,I)PERYLENE		0.038	UJ	H	0.038	UJ	H	0.038	UJ	H	0.038	UJ	H
BENZO(K)FLUORANTHENE		0.14	UJ	H	0.14	UJ	H	0.14	UJ	H	0.14	UJ	H
CHRYSENE		0.035	UJ	H	0.035	UJ	H	0.035	UJ	H	0.035	UJ	H
DIBENZO(A,H)ANTHRACENE		0.039	UJ	H	0.039	UJ	H	0.039	UJ	H	0.039	UJ	H
FLUORANTHENE		0.91	J	H	0.04	UJ	H	0.97	J	H	0.04	UJ	H
FLUORENE		0.054	UJ	H	0.16	J	HP	0.054	UJ	H	0.054	UJ	H
INDENO(1,2,3-CD)PYRENE		0.05	UJ	H	0.05	UJ	H	0.05	UJ	H	0.05	UJ	H
NAPHTHALENE		0.035	UJ	H	0.035	UJ	H	0.035	UJ	H	0.035	UJ	H
PHENANTHRENE		0.43	J	HP	0.61	J	H	0.47	J	HP	0.58	J	H
PYRENE		0.2	J	HP	0.039	UJ	H	0.27	J	HP	0.039	UJ	H

PROJ_NO: 02903 SDG: C0I020508 FRACTION: PAH MEDIA: WATER	NSAMPLE	PW-05 6-18			Rinsate Blank		
	LAB_ID	C0I020508014			C0I020508022		
	SAMP_DATE	9/9/2010			9/8/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	UJ	H	0.36	UJ	H
ACENAPHTHENE		0.44	J	HP	0.036	UJ	H
ACENAPHTHYLENE		0.038	UJ	H	0.038	UJ	H
ANTHRACENE		0.17	J	HP	0.038	UJ	H
BENZO(A)ANTHRACENE		0.48	J	HP	0.037	UJ	H
BENZO(A)PYRENE		0.23	J	HP	0.034	UJ	H
BENZO(B)FLUORANTHENE		2.6	J	H	0.039	UJ	H
BENZO(G,H,I)PERYLENE		0.82	J	H	0.038	UJ	H
BENZO(K)FLUORANTHENE		0.98	J	H	0.14	UJ	H
CHRYSENE		0.39	J	HP	0.035	UJ	H
DIBENZO(A,H)ANTHRACENE		0.039	UJ	H	0.039	UJ	H
FLUORANTHENE		2.1	J	H	0.04	UJ	H
FLUORENE		0.24	J	HP	0.054	UJ	H
INDENO(1,2,3-CD)PYRENE		0.98	J	H	0.05	UJ	H
NAPHTHALENE		0.035	UJ	H	0.035	UJ	H
PHENANTHRENE		0.8	J	H	0.41	J	HP
PYRENE		1.4	J	H	0.039	UJ	H

PROJ_NO: 02903	NSAMPLE	PW-03 0-6			PW-03 18-30			PW-03 6-18			PW-04 0-6		
SDG: C0I020508	LAB_ID	C0I020508007			C0I020508009			C0I020508008			C0I020508010		
FRACTION: PEST/PCB	SAMP_DATE	9/7/2010			9/7/2010			9/7/2010			9/8/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.1	UJ	H	0.1	UJ	H	0.1	UJ	H	0.1	UJ	H
AROCLOR-1221		0.1	UJ	H	0.1	UJ	H	0.1	UJ	H	0.1	UJ	H
AROCLOR-1232		0.12	UJ	H	0.12	UJ	H	0.12	UJ	H	0.12	UJ	H
AROCLOR-1242		0.074	UJ	H	0.074	UJ	H	0.074	UJ	H	0.074	UJ	H
AROCLOR-1248		0.091	UJ	H	0.091	UJ	H	0.091	UJ	H	0.091	UJ	H
AROCLOR-1254		0.092	UJ	H	0.092	UJ	H	0.092	UJ	H	0.092	UJ	H
AROCLOR-1260		0.49	J	H	0.054	UJ	H	0.13	J	HP	0.18	J	HP

PROJ_NO: 02903 SDG: C0I020508 FRACTION: PEST/PCB MEDIA: WATER	NSAMPLE	PW-04 18-30			PW-04 6-18			PW-05 0-6			PW-05 18-30		
	LAB_ID	C0I020508012			C0I020508011			C0I020508013			C0I020508015		
	SAMP_DATE	9/8/2010			9/8/2010			9/9/2010			9/9/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.1	UJ	H	0.1	UJ	H	0.1	UJ	H	0.1	UJ	H
AROCLOR-1221		0.1	UJ	H	0.1	UJ	H	0.1	UJ	H	0.1	UJ	H
AROCLOR-1232		0.12	UJ	H	0.12	UJ	H	0.12	UJ	H	0.12	UJ	H
AROCLOR-1242		0.074	UJ	H	0.074	UJ	H	0.074	UJ	H	0.074	UJ	H
AROCLOR-1248		0.091	UJ	H	0.091	UJ	H	0.091	UJ	H	0.091	UJ	H
AROCLOR-1254		0.092	UJ	H	0.092	UJ	H	0.092	UJ	H	0.092	UJ	H
AROCLOR-1260		0.054	UJ	H	0.1	J	HP	0.61	J	H	0.054	UJ	H

PROJ_NO: 02903 SDG: C0I020508 FRACTION: PEST/PCB MEDIA: WATER	NSAMPLE	PW-05 6-18			Rinsate Blank		
	LAB_ID	C0I020508014			C0I020508022		
	SAMP_DATE	9/9/2010			9/8/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.1	UJ	H	0.1	UJ	H
AROCLOR-1221		0.1	UJ	H	0.1	UJ	H
AROCLOR-1232		0.12	UJ	H	0.12	UJ	H
AROCLOR-1242		0.074	UJ	H	0.074	UJ	H
AROCLOR-1248		0.091	UJ	H	0.091	UJ	H
AROCLOR-1254		0.092	UJ	H	0.092	UJ	H
AROCLOR-1260		0.55	J	H	0.054	UJ	H

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: PW-01 Composite

GC/MS Volatiles

Lot-Sample #...:	C0I020508-023	**Work Order #...:**	L6NL71AA	**Matrix.....:**	WATER
Date Sampled...:	09/08/10	**Date Received..:**	09/08/10	**MS Run #.....:**	0257050
Prep Date.....:	09/13/10	**Analysis Date..:**	09/13/10		
Prep Batch #...:	0257090	**Analysis Time..:**	20:03		
Dilution Factor:	2	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	001644	**Instrument ID..:**	UX16		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**46**	**10**	**ug/L**	**2.2**
Bromobenzene	ND	2.0	ug/L	0.26
Bromochloromethane	ND	2.0	ug/L	0.58
Bromodichloromethane	ND	2.0	ug/L	0.30
2-Butanone	**7.1 J**	**10**	**ug/L**	**1.1**
n-Butylbenzene	ND	2.0	ug/L	0.24
sec-Butylbenzene	ND	2.0	ug/L	0.26
tert-Butylbenzene	ND	2.0	ug/L	0.26
Carbon disulfide	ND	2.0	ug/L	0.26
Dibromochloromethane	ND	2.0	ug/L	0.36
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L	1.3
2-Chloroethyl vinyl ether	ND	10	ug/L	2.0
2-Chlorotoluene	ND	2.0	ug/L	0.22
4-Chlorotoluene	ND	2.0	ug/L	0.36
1,2-Dibromoethane	ND	2.0	ug/L	0.48
Dibromomethane	ND	2.0	ug/L	0.56
1,2-Dichlorobenzene	ND	2.0	ug/L	0.26
1,3-Dichlorobenzene	ND	2.0	ug/L	0.28
1,4-Dichlorobenzene	ND	2.0	ug/L	0.26
Dichlorodifluoromethane	ND	2.0	ug/L	0.62
cis-1,2-Dichloroethene	ND	2.0	ug/L	0.34
trans-1,2-Dichloroethene	ND	2.0	ug/L	0.38
1,3-Dichloropropane	ND	2.0	ug/L	0.32
2,2-Dichloropropane	ND	2.0	ug/L	0.26
1,1-Dichloropropene	ND	2.0	ug/L	0.26
Trichlorofluoromethane	ND	2.0	ug/L	0.42
Hexachlorobutadiene	ND	2.0	ug/L	0.60
2-Hexanone	ND	10	ug/L	0.82
Isopropylbenzene	ND	2.0	ug/L	0.26
p-Isopropyltoluene	ND	2.0	ug/L	0.24
tert-Butyl alcohol	ND	40	ug/L	7.8
4-Methyl-2-pentanone	ND	10	ug/L	0.64
Naphthalene	ND	2.0	ug/L	0.48
n-Propylbenzene	ND	2.0	ug/L	0.28
Styrene	ND	2.0	ug/L	0.22
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L	0.46

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: PW-01 Composite

GC/MS Volatiles

Lot-Sample #...: C0I020508-023 **Work Order #...:** L6NL71AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	2.0	ug/L	0.34
1,2,4-Trichloro-benzene	ND	2.0	ug/L	0.30
1,2,3-Trichloropropane	ND	2.0	ug/L	0.86
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ug/L	0.56
1,2,4-Trimethylbenzene	ND	2.0	ug/L	0.24
Vinyl acetate	ND	4.0	ug/L	0.38
o-Xylene	ND	2.0	ug/L	0.28
Xylenes (total)	ND	4.0	ug/L	0.56
Methyl tert-butyl ether	ND	10	ug/L	0.34
m-Xylene & p-Xylene	ND	4.0	ug/L	0.48
1,2,3-Trimethylbenzene	ND	10	ug/L	0.012
Diisopropyl Ether (DIPE)	ND	10	ug/L	3.0
Ethyl-t-Butyl Ether (ETBE)	ND	10	ug/L	0.22
Tert-amyl methyl ether (TAME)	ND	10	ug/L	0.13
Benzene	ND	2.0	ug/L	0.26
Bromoform	ND	2.0	ug/L	1.3
Bromomethane	ND	2.0	ug/L	0.82
Carbon tetrachloride	ND	2.0	ug/L	0.26
Chlorobenzene	ND	2.0	ug/L	0.30
Chloroethane	ND	2.0	ug/L	0.58
Chloroform	ND	2.0	ug/L	0.32
Chloromethane	ND	2.0	ug/L	0.60
1,1-Dichloroethane	ND	2.0	ug/L	0.30
1,2-Dichloroethane	ND	2.0	ug/L	0.44
1,1-Dichloroethene	ND	2.0	ug/L	0.38
1,2-Dichloropropane	ND	2.0	ug/L	0.36
cis-1,3-Dichloropropene	ND	2.0	ug/L	0.28
trans-1,3-Dichloropropene	ND	2.0	ug/L	0.38
Ethylbenzene	ND	2.0	ug/L	0.34
Methylene chloride	**6.7**	**2.0**	**ug/L**	**0.66**
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L	0.36
Tetrachloroethene	ND	2.0	ug/L	0.58
Toluene	ND	2.0	ug/L	0.26
1,1,1-Trichloroethane	ND	2.0	ug/L	0.44
Trichloroethene	ND	2.0	ug/L	0.34
Vinyl chloride	ND	2.0	ug/L	0.44

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	106	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: PW-01 Composite

GC/MS Volatiles

Lot-Sample #...: C0I020508-023 Work Order #...: L6NL71AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 0-6"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-007	Work Order #...:	L6G831AC	Matrix.....:	WATER
Date Sampled...:	09/07/10	Date Received..:	09/07/10	MS Run #.....:	
Prep Date.....:	09/13/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0256315	Analysis Time..:	17:38		
Dilution Factor:	2.5	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	0.5 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.11 J**	**0.50**	**ug/L**	**0.036**
Fluorene	ND	0.50	ug/L	0.054
Phenanthrene	**0.55**	**0.50**	**ug/L**	**0.11**
Anthracene	**0.052 J**	**0.50**	**ug/L**	**0.038**
Fluoranthene	**0.91**	**0.50**	**ug/L**	**0.040**
Pyrene	**0.16 J**	**0.50**	**ug/L**	**0.039**
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	64	(23 - 112)
Terphenyl-d14	47	(10 - 132)
2-Fluorobiphenyl	64	(19 - 107)
2-Fluorophenol	46	(10 - 111)
Phenol-d5	38	(15 - 112)
2,4,6-Tribromophenol	55	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 18-30"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-009	**Work Order #...:**	L6G851AC	**Matrix.....:**	WATER
Date Sampled...:	09/07/10	**Date Received..:**	09/07/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	18:18		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.12 J**	**0.50**	**ug/L**	**0.036**
Fluorene	**0.12 J**	**0.50**	**ug/L**	**0.054**
Phenanthrene	**0.39 J**	**0.50**	**ug/L**	**0.11**
Anthracene	**0.041 J**	**0.50**	**ug/L**	**0.038**
Fluoranthene	**0.84**	**0.50**	**ug/L**	**0.040**
Pyrene	**0.10 J**	**0.50**	**ug/L**	**0.039**
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	84	(23 - 112)
Terphenyl-d14	55	(10 - 132)
2-Fluorobiphenyl	82	(19 - 107)
2-Fluorophenol	82	(10 - 111)
Phenol-d5	73	(15 - 112)
2,4,6-Tribromophenol	71	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 6-18"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-008	**Work Order #...:**	L6G841AC	**Matrix.....:**	WATER
Date Sampled...:	09/07/10	**Date Received..:**	09/07/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	17:58		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	ND	0.50	ug/L	0.036
Fluorene	**0.11 J**	**0.50**	**ug/L**	**0.054**
Phenanthrene	**0.34 J**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	**0.85**	**0.50**	**ug/L**	**0.040**
Pyrene	ND	0.50	ug/L	0.039
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(23 - 112)
Terphenyl-d14	58	(10 - 132)
2-Fluorobiphenyl	82	(19 - 107)
2-Fluorophenol	79	(10 - 111)
Phenol-d5	70	(15 - 112)
2,4,6-Tribromophenol	75	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 0-6"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-010	**Work Order #...:**	L6HF51AD	**Matrix.....:**	WATER
Date Sampled...:	09/08/10	**Date Received..:**	09/08/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	18:38		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	**0.074 J**	**0.50**	**ug/L**	**0.035**
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	ND	0.50	ug/L	0.036
Fluorene	**0.13 J**	**0.50**	**ug/L**	**0.054**
Phenanthrene	**0.44 J**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	ND	0.50	ug/L	0.040
Pyrene	ND	0.50	ug/L	0.039
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	83	(23 - 112)
Terphenyl-d14	69	(10 - 132)
2-Fluorobiphenyl	82	(19 - 107)
2-Fluorophenol	81	(10 - 111)
Phenol-d5	73	(15 - 112)
2,4,6-Tribromophenol	73	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 18-30"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-012	Work Order #...:	L6HGD1AC	Matrix.....:	WATER
Date Sampled...:	09/08/10	Date Received..:	09/08/10	MS Run #.....:	
Prep Date.....:	09/13/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0256315	Analysis Time..:	19:18		
Dilution Factor:	2.5	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	0.5 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.11 J**	**0.50**	**ug/L**	**0.036**
Fluorene	ND	0.50	ug/L	0.054
Phenanthrene	**0.43 J**	**0.50**	**ug/L**	**0.11**
Anthracene	**0.038 J**	**0.50**	**ug/L**	**0.038**
Fluoranthene	**0.91**	**0.50**	**ug/L**	**0.040**
Pyrene	**0.20 J**	**0.50**	**ug/L**	**0.039**
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(23 - 112)
Terphenyl-d14	47	(10 - 132)
2-Fluorobiphenyl	70	(19 - 107)
2-Fluorophenol	69	(10 - 111)
Phenol-d5	60	(15 - 112)
2,4,6-Tribromophenol	61	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 6-18"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-011	**Work Order #...:**	L6HF81AC	**Matrix.....:**	WATER
Date Sampled...:	09/08/10	**Date Received..:**	09/08/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	18:58		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.11 J**	**0.50**	**ug/L**	**0.036**
Fluorene	**0.16 J**	**0.50**	**ug/L**	**0.054**
Phenanthrene	**0.61**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	ND	0.50	ug/L	0.040
Pyrene	ND	0.50	ug/L	0.039
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	85	(23 - 112)
Terphenyl-d14	64	(10 - 132)
2-Fluorobiphenyl	85	(19 - 107)
2-Fluorophenol	83	(10 - 111)
Phenol-d5	74	(15 - 112)
2,4,6-Tribromophenol	77	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 0-6"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-013	**Work Order #...:**	L6HGE1AC	**Matrix.....:**	WATER
Date Sampled...:	09/09/10	**Date Received..:**	09/09/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	19:38		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.17 J**	**0.50**	**ug/L**	**0.036**
Fluorene	ND	0.50	ug/L	0.054
Phenanthrene	**0.47 J**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	**0.97**	**0.50**	**ug/L**	**0.040**
Pyrene	**0.27 J**	**0.50**	**ug/L**	**0.039**
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	88	(23 - 112)
Terphenyl-d14	67	(10 - 132)
2-Fluorobiphenyl	89	(19 - 107)
2-Fluorophenol	79	(10 - 111)
Phenol-d5	73	(15 - 112)
2,4,6-Tribromophenol	83	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 18-30"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-015	Work Order #...:	L6HGH1AC	Matrix.....:	WATER
Date Sampled...:	09/09/10	Date Received..:	09/09/10	MS Run #.....:	
Prep Date.....:	09/13/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0256315	Analysis Time..:	20:17		
Dilution Factor:	2.5	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	0.5 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.093 J**	**0.50**	**ug/L**	**0.036**
Fluorene	ND	0.50	ug/L	0.054
Phenanthrene	**0.58**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	ND	0.50	ug/L	0.040
Pyrene	ND	0.50	ug/L	0.039
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	21 *	(23 - 112)
Terphenyl-d14	80	(10 - 132)
2-Fluorobiphenyl	75	(19 - 107)
2-Fluorophenol	14	(10 - 111)
Phenol-d5	49	(15 - 112)
2,4,6-Tribromophenol	88	(16 - 122)

NOTE(S):

* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-014	Work Order #...:	L6HGF1AC	Matrix.....:	WATER
Date Sampled...:	09/09/10	Date Received..:	09/09/10	MS Run #.....:	
Prep Date.....:	09/13/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0256315	Analysis Time..:	19:58		
Dilution Factor:	2.5	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	0.5 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	0.44 J	0.50	ug/L	0.036
Fluorene	0.24 J	0.50	ug/L	0.054
Phenanthrene	0.80	0.50	ug/L	0.11
Anthracene	0.17 J	0.50	ug/L	0.038
Fluoranthene	2.1	0.50	ug/L	0.040
Pyrene	1.4	0.50	ug/L	0.039
Benzo(a)anthracene	0.48 J	0.50	ug/L	0.037
Chrysene	0.39 J	0.50	ug/L	0.035
Benzo(b)fluoranthene	2.6	0.50	ug/L	0.039
Benzo(k)fluoranthene	0.98	0.50	ug/L	0.14
Benzo(a)pyrene	0.23 J	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	0.98	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	0.82	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	100	(23 - 112)
Terphenyl-d14	78	(10 - 132)
2-Fluorobiphenyl	105	(19 - 107)
2-Fluorophenol	95	(10 - 111)
Phenol-d5	89	(15 - 112)
2,4,6-Tribromophenol	95	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: Rinsate Blank

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-022	Work Order #...:	L6M4H1AC	Matrix.....:	WATER
Date Sampled...:	09/08/10	Date Received..:	09/08/10	MS Run #.....:	
Prep Date.....:	09/13/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0256315	Analysis Time..:	20:57		
Dilution Factor:	2.5	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	0.5 mL
Analyst ID.....:	045183	Instrument ID..:	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	ND	0.50	ug/L	0.036
Fluorene	ND	0.50	ug/L	0.054
Phenanthrene	**0.41 J**	**0.50**	**ug/L**	**0.11**
Anthracene	ND	0.50	ug/L	0.038
Fluoranthene	ND	0.50	ug/L	0.040
Pyrene	ND	0.50	ug/L	0.039
Benzo(a)anthracene	ND	0.50	ug/L	0.037
Chrysene	ND	0.50	ug/L	0.035
Benzo(b)fluoranthene	ND	0.50	ug/L	0.039
Benzo(k)fluoranthene	ND	0.50	ug/L	0.14
Benzo(a)pyrene	ND	0.50	ug/L	0.034
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	0.050
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	ND	0.50	ug/L	0.038

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	103	(23 - 112)
Terphenyl-d14	106	(10 - 132)
2-Fluorobiphenyl	101	(19 - 107)
2-Fluorophenol	98	(10 - 111)
Phenol-d5	93	(15 - 112)
2,4,6-Tribromophenol	92	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 0-6"

GC Semivolatiles

Lot-Sample #...:	C0I020508-007	**Work Order #...:**	L6G831AA	**Matrix.....:**	WATER
Date Sampled...:	09/07/10	**Date Received..:**	09/07/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/13/10		
Prep Batch #...:	0252401	**Analysis Time..:**	22:24		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.49**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	109	(35 - 140)
Decachlorobiphenyl	100	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: PW-03 18-30"

GC Semivolatiles

Lot-Sample #...: C0I020508-009	Work Order #...: L6G851AA	Matrix.....: WATER
Date Sampled...: 09/07/10	Date Received..: 09/07/10	MS Run #.....:
Prep Date.....: 09/09/10	Analysis Date..: 09/13/10	
Prep Batch #...: 0252401	Analysis Time..: 23:04	
Dilution Factor: 1	Initial Wgt/Vol: 200 mL	Final Wgt/Vol...: 8 mL
Analyst ID.....: 001797	Instrument ID..: U/V	
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	ND	0.40	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 140)
Decachlorobiphenyl	87	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: PW-03 6-18"

GC Semivolatiles

Lot-Sample #...:	C0I020508-008	**Work Order #...:**	L6G841AA	**Matrix.....:**	WATER
Date Sampled...:	09/07/10	**Date Received..:**	09/07/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/13/10		
Prep Batch #...:	0252401	**Analysis Time..:**	22:44		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.13 J**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 140)
Decachlorobiphenyl	90	(35 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 0-6"

GC Semivolatiles

Lot-Sample #...:	C0I020508-010	**Work Order #...:**	L6HF51AC	**Matrix.....:**	WATER
Date Sampled...:	09/08/10	**Date Received..:**	09/08/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/13/10		
Prep Batch #...:	0252401	**Analysis Time..:**	23:25		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.18 J**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 18-30"

GC Semivolatiles

Lot-Sample #...:	C0I020508-012	Work Order #...:	L6HGD1AA	Matrix.....:	WATER
Date Sampled...:	09/08/10	Date Received..:	09/08/10	MS Run #.....:	
Prep Date.....:	09/09/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0252401	Analysis Time..:	00:06		
Dilution Factor:	1	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	8 mL
Analyst ID.....:	001797	Instrument ID..:	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	ND	0.40	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(35 - 140)
Decachlorobiphenyl	95	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: PW-04 6-18"

GC Semivolatiles

Lot-Sample #...:	C0I020508-011	Work Order #...:	L6HF81AA	Matrix.....:	WATER
Date Sampled...:	09/08/10	Date Received..:	09/08/10	MS Run #.....:	
Prep Date.....:	09/09/10	Analysis Date..:	09/13/10		
Prep Batch #...:	0252401	Analysis Time..:	23:45		
Dilution Factor:	1	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	8 mL
Analyst ID.....:	001797	Instrument ID..:	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.10 J**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 0-6"

GC Semivolatiles

Lot-Sample #...: C0I020508-013	Work Order #...: L6HGE1AA	Matrix.....: WATER
Date Sampled...: 09/09/10	Date Received..: 09/09/10	MS Run #.....:
Prep Date.....: 09/09/10	Analysis Date..: 09/14/10	
Prep Batch #...: 0252401	Analysis Time..: 00:26	
Dilution Factor: 1	Initial Wgt/Vol: 200 mL	Final Wgt/Vol..: 8 mL
Analyst ID.....: 001797	Instrument ID..: U/V	
	Method.....: SW846 8082	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.61**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(35 - 140)
Decachlorobiphenyl	93	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: PW-05 18-30"

GC Semivolatiles

Lot-Sample #...:	C0I020508-015	**Work Order #...:**	L6HGH1AA	**Matrix.....:**	WATER
Date Sampled...:	09/09/10	**Date Received..:**	09/09/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0252401	**Analysis Time..:**	01:07		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	ND	0.40	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	94	(35 - 140)
Decachlorobiphenyl	89	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

GC Semivolatiles

Lot-Sample #...:	C0I020508-014	**Work Order #...:**	L6HGF1AA	**Matrix.....:**	WATER
Date Sampled...:	09/09/10	**Date Received..:**	09/09/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0252401	**Analysis Time..:**	00:46		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.55**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 140)
Decachlorobiphenyl	96	(35 - 140)

Tetra Tech NUS, Inc

Client Sample ID: Rinsate Blank

GC Semivolatiles

Lot-Sample #...:	C0I020508-022	Work Order #...:	L6M4H1AA	Matrix.....:	WATER
Date Sampled...:	09/08/10	Date Received..:	09/08/10	MS Run #.....:	
Prep Date.....:	09/09/10	Analysis Date..:	09/14/10		
Prep Batch #...:	0252401	Analysis Time..:	01:27		
Dilution Factor:	1	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	8 mL
Analyst ID.....:	001797	Instrument ID..:	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	ND	0.40	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 140)
Decachlorobiphenyl	98	(35 - 140)

Appendix C

Support Documentation

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0I020508

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 24, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Volatiles:
TestAmerica's North Canton laboratory performed the VOA analysis. All data is included in the package.

Due to the concentration of target compounds detected, PW-01 Composite was analyzed at a dilution.

The method blank had compounds detected below the reporting limit but above the MDL. The result was flagged with a "J" qualifier. Any sample associated with this blank that had the same compounds detected had the result flagged with a "B" qualifier.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, all samples were analyzed at a dilution.

Sample PW-05 18-30" had nitrobenzene-d5 surrogate recover below the control limit. The sample was analyzed at a dilution.

The RPD between the LCS and LCSD recovered above the control limit for 4-nitrophenol.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0I020508

Metals:
The serial dilution percent difference was outside the control limits for antimony in sample PW-07 18-30".

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

General Chemistry:
pH is a field parameter. Laboratory pH analysis was completed at the request of the client.

C0I020508

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA Tech	Project Manager: Mike MARTIN	Date: 8/22/10	Chain of Custody Number: 154232
Address: 20251 Century Blvd suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 1 of 1
City: Germantown State: MD Zip Code: 20874	Site Contact: Tony Apanavage	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): MCR Sed. Sampling	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	2 colors	Metals	PAHs	PCBs	Pesticides	DOC	Hardness	pH	VOCs	Special Instructions/ Conditions of Receipt
PW-01	8/22/10	0818			X		X						X	X				X	X	X		See Table 1-1
PW-02		0917											X	X				X	X	X		Avg. 920
PW-03		1007											X	X	X	X		X	X	X		
PW-04		1344											X	X	X	X		X	X	X		
PW-05		1401											X	X	X	X		X	X	X		
PW-06		1247											X	X				X	X	X		
PW-07	8/22/10	1315			X		X						X	X				X	X	X		
PW-01 Composite																						
Rinsate Blank																						
*See Sample Summary for Lab.																						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date: 8/23/10	Time: 1530	1. Received By	Date: 8/23/10	Time: 1530
2. Relinquished By	Date: 8/24/10	Time: 1630	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date: 8/24/10	Time: 1015

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech NUS Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/24/10

Coolers Opened and Unpacked on: 8/25/10 By: PRF (Signature)

TestAmerica Pittsburgh Lot Number: COH250419

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?			✓
9.	Were all bottles sealed in separate plastic bags?		✓	
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?			✓
15.	Was a sufficient amount of sample sent in each bottle?	✓		
16.	Samples received by: FEDEX UPS CLIENT DROP-OFF OTHER DHL US CARGO			

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

Cooler Receipt Form

TestAmerica Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	(trans) PH<2			

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

Cooler Number	Temperature*	Thermometer ID
1	4.6°	9
2	4.1°	4
3	3.8°	9

Sample	Lot Number**

* Acceptable Temperature Range: 4°C ± 2°C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

SAMPLE SUMMARY

C0I020508

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6GC3	001	PW-01 0-6"	09/07/10	08:18
L6GDG	002	PW-01 6-18"	09/07/10	08:18
L6GDH	003	PW-01 18-30"	09/07/10	08:18
L6GFH	004	PW-02 0-6"	09/02/10	09:17
L6GFJ	005	PW-02 6-18"	09/02/10	09:17
L6GFK	006	PW-02 18-30"	09/02/10	09:17
L6G83	007	PW-03 0-6"	09/07/10	
L6G84	008	PW-03 6-18"	09/07/10	
L6G85	009	PW-03 18-30"	09/07/10	
L6HF5	010	PW-04 0-6"	09/08/10	
L6HF8	011	PW-04 6-18"	09/08/10	
L6HGD	012	PW-04 18-30"	09/08/10	
L6HGE	013	PW-05 0-6"	09/09/10	
L6HGF	014	PW-05 6-18"	09/09/10	
L6HGH	015	PW-05 18-30"	09/09/10	
L6HGJ	016	PW-06 0-6"	09/03/10	
L6HGL	017	PW-06 6-18"	09/03/10	
L6HGN	018	PW-06 18-30"	09/03/10	
L6HGV	019	PW-07 0-6"	09/03/10	
L6HGX	020	PW-07 6-18"	09/03/10	
L6HG3	021	PW-07 18-30"	09/03/10	
L6M4H	022	Rinsate Blank	09/08/10	
L6NL7	023	PW-01 Composite	09/08/10	16:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

HOLD TIMES

SDG C0I020508

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
DOC	MG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/27/2010	09/27/2010	19	0	19
DOC	MG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/27/2010	09/27/2010	24	0	24

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
DOC	MG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
DOC	MG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
DOC	MG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/29/2010	09/29/2010	22	0	22
DOC	MG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
HARD	MG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HARD	MG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HARD	MG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
PH	--	PW-04 18-30	C0I020508012	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-01 0-6	C0I020508001	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-01 18-30	C0I020508003	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-01 6-18	C0I020508002	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-02 0-6	C0I020508004	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-02 18-30	C0I020508006	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-02 6-18	C0I020508005	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-03 0-6	C0I020508007	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-03 18-30	C0I020508009	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-04 0-6	C0I020508010	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	Rinsate Blank	C0I020508022	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-04 6-18	C0I020508011	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-06 0-6	C0I020508016	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-06 18-30	C0I020508018	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PH	--	PW-06 6-18	C0I020508017	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 0-6	C0I020508019	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 18-30	C0I020508021	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 6-18	C0I020508020	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-03 6-18	C0I020508008	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
OV	UG/L	PW-01 Composite	C0I020508023	NM	09/08/2010	09/13/2010	09/13/2010	5	0	5
OV	UG/L	PW-01 Composite	C0I020508023	SUR	09/08/2010	09/13/2010	09/13/2010	5	0	5
SIM	UG/L	PW-04 0-6	C0I020508010	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-04 18-30	C0I020508012	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-03 0-6	C0I020508007	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-03 18-30	C0I020508009	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	Rinsate Blank	C0I020508022	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 6-18	C0I020508008	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-05 18-30	C0I020508015	SUR	09/09/2010	09/13/2010	09/14/2010	4	1	5

8/22 – 9/13

8/22 → 9/13 23

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/L	PW-05 6-18	C0I020508014	SUR	09/09/2010	09/13/2010	09/14/2010	4	1	5
SIM	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/13/2010	09/14/2010	4	1	5
SIM	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/13/2010	09/14/2010	4	1	5
SIM	UG/L	PW-05 0-6	C0I020508013	SUR	09/09/2010	09/13/2010	09/14/2010	4	1	5
SIM	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/13/2010	09/14/2010	4	1	5
SIM	UG/L	PW-04 6-18	C0I020508011	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
PCB	UG/L	PW-04 18-30	C0I020508012	SUR	09/08/2010	09/09/2010	09/14/2010	1	5	6
PCB	UG/L	PW-05 6-18	C0I020508014	SUR	09/09/2010	09/09/2010	09/14/2010	0	5	5
PCB	UG/L	PW-05 18-30	C0I020508015	SUR	09/09/2010	09/09/2010	09/14/2010	0	5	5
PCB	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/14/2010	0	5	5
PCB	UG/L	PW-05 0-6	C0I020508013	SUR	09/09/2010	09/09/2010	09/14/2010	0	5	5
PCB	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/14/2010	0	5	5
PCB	UG/L	PW-04 6-18	C0I020508011	SUR	09/08/2010	09/09/2010	09/13/2010	1	4	5
PCB	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/09/2010	09/13/2010	1	4	5
PCB	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/14/2010	0	5	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/09/2010	09/14/2010	1	5	6
PCB	UG/L	PW-04 0-6	C0I020508010	SUR	09/08/2010	09/09/2010	09/13/2010	1	4	5
PCB	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/09/2010	09/13/2010	1	4	5
PCB	UG/L	PW-03 6-18	C0I020508008	SUR	09/07/2010	09/09/2010	09/13/2010	2	4	6
PCB	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/09/2010	09/13/2010	2	4	6
PCB	UG/L	PW-03 18-30	C0I020508009	SUR	09/07/2010	09/09/2010	09/13/2010	2	4	6
PCB	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/09/2010	09/13/2010	2	4	6
PCB	UG/L	PW-03 0-6	C0I020508007	SUR	09/07/2010	09/09/2010	09/13/2010	2	4	6
PCB	UG/L	Rinsate Blank	C0I020508022	SUR	09/08/2010	09/09/2010	09/14/2010	1	5	6
PCB	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/09/2010	09/14/2010	1	5	6
PCB	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/09/2010	09/13/2010	2	4	6

METHODS SUMMARY

C0I020508

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH Aqueous	SW846 9040	SW846 9040
Dissolved Organic Carbon 5310C	SM20 5310C	
ICP-MS (6020)	SW846 6020	SW846 3005A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
PCBs by SW-846 8082	SW846 8082	SW846 3510C
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Total Hardness	SM18 2340B	
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

References:

SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: C0I020508

Lab File ID: BFB524 BFB Injection Date: 08/03/10

Instrument ID: A3UX16 BFB Injection Time: 1600

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	45.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	88.3
175	5.0 - 9.0% of mass 174	6.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.7 (97.0)1
177	5.0 - 9.0% of mass 176	5.3 (6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXM7963	08/03/10	1644
02	VSTD020	100NG-IC	UXM7964	08/03/10	1705
03	VSTD010	50NG-IC	UXM7965	08/03/10	1727
04	VSTD005	25NG-IC	UXM7966	08/03/10	1749
05	VSTD002	10NG-IC	UXM7967	08/03/10	1811
06	VSTD001	5NG-IC	UXM7968	08/03/10	1832
07	VSTD040	200NG-A9IC	UXM7970	08/03/10	1916
08	VSTD020	100NG-A9IC	UXM7971	08/03/10	1938
09	VSTD010	50NG-A9IC	UXM7972	08/03/10	1959
10	VSTD005	25NG-A9IC	UXM7973	08/03/10	2021
11	VSTD002	10NG-A9IC	UXM7974	08/03/10	2043
12	VSTD001	5NG-A9IC	UXM7975	08/03/10	2105
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7975.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7974.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7973.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7972.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7971.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7970.D

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
8 Dichlorodifluoromethane	0.16587	0.14951	0.18671	0.18976	0.20707	0.22360	AVRG		0.18709		14.34605
9 Chloromethane	0.34811	0.31503	0.31891	0.33855	0.29137	0.30593	AVRG		0.31965		6.52727
10 Vinyl Chloride	0.29593	0.28340	0.30604	0.30367	0.30549	0.30647	AVRG		0.30017		3.03163
11 Bromomethane	23100	41141	107491	180067	319868	512180	QUAD	0.03889	5.41371	26.23238	0.99944
12 Chloroethane	36417	56315	136727	255644	487419	931664	WLINR	-0.05431	0.14262		0.99559
13 Trichlorofluoromethane	0.19219	0.17155	0.20525	0.20827	0.21574	0.21701	AVRG		0.20167		8.55106
14 Dichlorofluoromethane	0.39892	0.38754	0.32483	0.33783	0.34290	0.32341	AVRG		0.35257		9.23596
15 Acrolein	0.03507	0.03454	0.03536	0.03583	0.03667	0.03512	AVRG		0.03543		2.08281
16 Acetone	0.10811	0.08454	0.08079	0.08208	0.07605	0.07345	AVRG		0.08417		14.74406
17 1,1-Dichloroethene	0.23779	0.25990	0.25465	0.25077	0.25483	0.25945	AVRG		0.25290		3.21885
18 Freon-113	0.12483	0.16331	0.15236	0.16880	0.17894	0.18220	AVRG		0.16174		13.01835
19 Iodomethane	0.40270	0.42098	0.41968	0.42282	0.41425	0.41721	AVRG		0.41628		1.75179
20 Carbon Disulfide	0.79238	0.83594	0.82953	0.84286	0.84839	0.86014	AVRG		0.83487		2.79400
21 Methylene Chloride	88122	135381	275528	519271	977821	1981760	WLINR	-0.08976	0.28456		0.99982

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	22 Acetonitrile	0.02931	0.02704	0.02813	0.02738	0.02792	0.02598	AVRG		0.02763		4.06576
	23 Acrylonitrile	0.07827	0.08238	0.08669	0.08490	0.08461	0.08030	AVRG		0.08286		3.80725
	24 Methyl tert-butyl ether	0.40107	0.38966	0.38998	0.38913	0.37094	0.35453	AVRG		0.38255		4.39267
	25 trans-1,2-Dichloroethene	0.27676	0.29679	0.28761	0.28399	0.28520	0.28482	AVRG		0.28586		2.26921
	26 Hexane	5267	14676	30905	71996	157400	356958	WLINR	0.04744	0.05042		0.99425
	27 Vinyl acetate	0.35171	0.36614	0.37795	0.38176	0.40080	0.40079	AVRG		0.37986		5.08331
	28 1,1-Dichloroethane	0.45332	0.47819	0.46358	0.45834	0.46474	0.47002	AVRG		0.46470		1.87967
	29 tert-Butyl Alcohol	0.01331	0.01333	0.01319	0.01314	0.01310	0.01194	AVRG		0.01300		4.06889
	30 2-Butanone	0.11668	0.10961	0.10749	0.10455	0.10560	0.09823	AVRG		0.10703		5.69181
M	31 1,2-Dichloroethene (total)	0.28426	0.29959	0.28958	0.28745	0.28781	0.28922	AVRG		0.28965		1.80227
	32 cis-1,2-dichloroethene	0.29176	0.30239	0.29155	0.29090	0.29042	0.29362	AVRG		0.29344		1.53928
	33 2,2-Dichloropropane	0.29731	0.29652	0.29457	0.29883	0.29998	0.29423	AVRG		0.29691		0.76914
	34 Bromochloromethane	0.13250	0.13515	0.13292	0.13539	0.13462	0.13547	AVRG		0.13434		0.97156
	35 Chloroform	0.44401	0.45246	0.43715	0.43755	0.43622	0.43833	AVRG		0.44095		1.42319
	36 Tetrahydrofuran	39983	47367	85260	127284	234964	437924	WLINR	-0.29515	0.06128		0.99029
	37 1,1,1-Trichloroethane	0.35536	0.37709	0.37483	0.37368	0.37791	0.37841	AVRG		0.37288		2.35392
	38 1,1-Dichloropropene	0.32645	0.34723	0.33658	0.34371	0.34787	0.35666	AVRG		0.34308		3.03992
	39 Carbon Tetrachloride	0.26448	0.30168	0.29811	0.30822	0.31234	0.32111	AVRG		0.30099		6.52359
	40 1,2-Dichloroethane	0.33335	0.34992	0.32973	0.32739	0.32946	0.32626	AVRG		0.33269		2.64039
	41 Benzene	1.17196	1.15482	1.08754	1.08329	1.08733	1.10608	AVRG		1.11517		3.45794
	42 Trichloroethene	0.27315	0.27787	0.27140	0.27161	0.27477	0.27913	AVRG		0.27465		1.17999
	43 1,2-Dichloropropane	0.23973	0.24890	0.24028	0.24936	0.25361	0.25852	AVRG		0.24840		2.96822

(1001 - 1163)

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C0I020508

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	44 1,4-Dioxane	25483	48936	102846	195003	391483	701321	WLINR	-2.13488	0.00227		0.99230
	45 Dibromomethane	0.13982	0.14506	0.13551	0.13644	0.13818	0.13671	AVRG		0.13862		2.52479
	46 Bromodichloromethane	0.30397	0.31015	0.30098	0.30893	0.32024	0.32407	AVRG		0.31139		2.90824
	47 2-Chloroethyl vinyl ether	0.07690	0.07301	0.07401	0.07682	0.07904	0.07913	AVRG		0.07648		3.31073
	48 cis-1,3-Dichloropropene	0.36012	0.39329	0.38351	0.39606	0.41785	0.43019	AVRG		0.39684		6.26718
	49 4-Methyl-2-pentanone	0.19553	0.19490	0.20205	0.20000	0.20801	0.19807	AVRG		0.19976		2.42868
	50 Toluene	1.66646	1.71134	1.63480	1.62235	1.61674	1.60399	AVRG		1.64261		2.42367
	51 trans-1,3-Dichloropropene	0.45380	0.47756	0.48427	0.49942	0.50619	0.50616	AVRG		0.48790		4.18393
	52 Ethyl Methacrylate	0.41669	0.46026	0.44001	0.43940	0.44946	0.43800	AVRG		0.44064		3.28127
	53 1,1,2-Trichloroethane	0.29227	0.30298	0.29550	0.29013	0.28579	0.27597	AVRG		0.29044		3.14585
	54 1,3-Dichloropropane	0.52504	0.55595	0.51971	0.52016	0.51945	0.51126	AVRG		0.52526		2.98413
	55 Tetrachloroethene	0.29029	0.30773	0.30454	0.30194	0.30160	0.30325	AVRG		0.30156		1.97250
	56 2-Hexanone	0.17838	0.17401	0.18345	0.17989	0.18576	0.17013	AVRG		0.17860		3.25741
	57 Dibromochloromethane	0.28242	0.30120	0.29833	0.30768	0.31525	0.31413	AVRG		0.30317		4.02438
	58 1,2-Dibromoethane	0.27215	0.29534	0.28341	0.28033	0.28167	0.27124	AVRG		0.28069		3.12763
	59 Chlorobenzene	1.03863	1.06237	0.99485	0.98775	1.00664	1.00192	AVRG		1.01536		2.85140
	60 1,1,1,2-Tetrachloroethane	0.36103	0.36445	0.36862	0.36977	0.36449	0.35757	AVRG		0.36432		1.25582
	61 Ethylbenzene	0.52828	0.55991	0.53536	0.53773	0.54684	0.54352	AVRG		0.54194		2.01644
	62 m + p-Xylene	0.65483	0.70529	0.66219	0.66653	0.67294	0.67695	AVRG		0.67312		2.61307
M	63 Xylenes (total)	0.66413	0.70930	0.67489	0.67565	0.67990	0.67589	AVRG		0.67996		2.25231
	64 Xylene-o	0.68272	0.71734	0.70029	0.69387	0.69381	0.67378	AVRG		0.69364		2.15720
	65 Styrene	1.07529	1.12437	1.08332	1.09776	1.11497	1.10672	AVRG		1.10040		1.70307

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
66 Bromoform	0.14832	0.16294	0.16910	0.17582	0.18626	0.18675	AVRG		0.17153		8.58884
67 Isopropylbenzene	1.64366	1.74160	1.70406	1.69720	1.69879	1.67914	AVRG		1.69408		1.89541
68 1,1,2,2-Tetrachloroethane	0.64693	0.70793	0.66835	0.68199	0.66465	0.67284	AVRG		0.67378		3.01853
69 1,4-Dichloro-2-butene	0.12309	0.13682	0.13306	0.14451	0.15276	0.15756	AVRG		0.14130		9.09483
70 1,2,3-Trichloropropane	0.22173	0.22074	0.20523	0.21405	0.21095	0.21039	AVRG		0.21385		2.98952
71 Bromobenzene	0.76083	0.80890	0.76936	0.77528	0.77526	0.81889	AVRG		0.78475		2.98151
72 n-Propylbenzene	0.71872	0.79486	0.77383	0.79033	0.79563	0.84145	AVRG		0.78580		5.07058
73 2-Chlorotoluene	0.71514	0.73933	0.72718	0.75292	0.73650	0.77294	AVRG		0.74067		2.72995
74 1,3,5-Trimethylbenzene	2.40822	2.53918	2.48889	2.59463	2.57440	2.75141	AVRG		2.55946		4.50821
75 4-Chlorotoluene	0.73103	0.74219	0.72106	0.72635	0.73139	0.76864	AVRG		0.73678		2.32095
76 tert-Butylbenzene	2.00352	2.13089	2.12474	2.23276	2.16102	2.32486	AVRG		2.16296		5.02200
77 1,2,4-Trimethylbenzene	2.54442	2.62024	2.59061	2.68069	2.63377	2.76841	AVRG		2.63969		2.94164
78 sec-Butylbenzene	2.48973	2.72205	2.66291	2.82285	2.79726	3.03593	AVRG		2.75512		6.59834
79 4-Isopropyltoluene	2.12318	2.33682	2.29167	2.41679	2.40873	2.58396	AVRG		2.36019		6.48256
80 1,3-Dichlorobenzene	1.45256	1.48798	1.42776	1.43962	1.42931	1.46261	AVRG		1.44997		1.58454
81 1,4-Dichlorobenzene	1.50511	1.51829	1.46185	1.48150	1.46515	1.50194	AVRG		1.48897		1.54536
82 n-Butylbenzene	1.68287	1.82988	1.81306	1.89744	1.90625	2.08397	AVRG		1.86891		7.08689
83 1,2-Dichlorobenzene	1.44706	1.51515	1.45738	1.49146	1.43018	1.45707	AVRG		1.46638		2.12605
84 1,2-Dibromo-3-chloropropane	0.12866	0.13713	0.13607	0.14569	0.14282	0.14300	AVRG		0.13890		4.48991
85 1,2,4-Trichlorobenzene	0.90222	0.90424	0.93086	0.93910	0.91748	0.91503	AVRG		0.91816		1.58420
86 Hexachlorobutadiene	0.34725	0.38848	0.38891	0.38861	0.38421	0.39164	AVRG		0.38152		4.44353
87 Naphthalene	2.24281	2.30154	2.40714	2.45384	2.32204	2.26676	AVRG		2.33235		3.52142

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C0I020508

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

	Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
88	1,2,3-Trichlorobenzene	0.79458	0.79064	0.83610	0.84880	0.81358	0.79958	AVRG		0.81388		2.92326	
89	Ethyl Ether	0.19456	0.20579	0.20322	0.20376	0.20371	0.21143	AVRG		0.20375		2.66886	
90	Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
91	3-Chloropropene	0.13423	0.13356	0.13532	0.13831	0.14608	0.14858	AVRG		0.13935		4.62374	
92	Isopropyl Ether	0.23104	0.24546	0.24045	0.24045	0.24231	0.24839	AVRG		0.24135		2.45240	
93	2-Chloro-1,3-butadiene	0.34669	0.36339	0.36333	0.35495	0.37754	0.37682	AVRG		0.36378		3.32055	
94	Propionitrile	0.02851	0.02770	0.02766	0.02715	0.02875	0.02901	AVRG		0.02813		2.59550	
95	Ethyl Acetate	0.18102	0.20210	0.17961	0.18576	0.18512	0.19083	AVRG		0.18741		4.38169	
96	Methacrylonitrile	0.13821	0.12676	0.13012	0.13518	0.13364	0.13475	AVRG		0.13311		3.05129	
97	Isobutanol	0.01000	0.00839	0.00792	0.00843	0.00872	0.00801	AVRG		0.00858		8.80899	<-
98	Cyclohexane	0.30334	0.37647	0.35329	0.38116	0.40044	0.41814	AVRG		0.37214		10.81959	
99	n-Butanol	0.00696	0.00722	0.00710	0.00800	0.00768	0.00604	AVRG		0.00717		9.42681	<-
100	Methyl Methacrylate	0.19526	0.17392	0.17146	0.17272	0.17351	0.18229	AVRG		0.17819		5.16498	
101	2-Nitropropane	0.04195	0.03968	0.03778	0.03903	0.04064	0.04663	AVRG		0.04095		7.61695	
102	Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
103	Cyclohexanone	0.02322	0.02860	0.02805	0.03223	0.03039	0.02754	AVRG		0.02834		10.74762	
104	Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
105	Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
134	Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
135	Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
136	Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
M 137	Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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1036

C0I020508

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

Compound	5.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
141 1,3,5-Trichlorobenzene	0.93681	0.97393	0.97204	0.98034	0.96933	1.00048	AVRG		0.97215		2.12296	
143 Methyl Acetate	0.17715	0.17540	0.17734	0.17469	0.18055	0.16741	AVRG		0.17542		2.51904	
144 Methylcyclohexane	0.23835	0.30483	0.28989	0.32341	0.34497	0.37111	AVRG		0.31209		14.80597	
145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
146 2-Methylnaphthalene	0.86198	0.94642	1.00107	1.09495	1.18707	1.12925	AVRG		1.03679		11.77461	
147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
149 Vinyl Acetate-86	0.04108	0.03867	0.04346	0.04450	0.04699	0.04663	AVRG		0.04355		7.41046	
150 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
151 t-Butyl ethyl ether	0.52464	0.51543	0.51345	0.49325	0.52118	0.48893	AVRG		0.50948		2.91638	
152 t-Amyl methyl ether	0.45971	0.45931	0.46161	0.44507	0.48405	0.45297	AVRG		0.46045		2.83653	
153 1,2,3-Trimethylbenzene	2.38208	2.54185	2.56554	2.61518	2.70337	2.77032	AVRG		2.59639		5.22175	
$ 4 Dibromofluoromethane	0.22501	0.22614	0.22425	0.21945	0.23551	0.23398	AVRG		0.22739		2.70709	
$ 5 1,2-Dichloroethane-d4	0.27507	0.27739	0.27004	0.26008	0.27712	0.27038	AVRG		0.27168		2.39902	
$ 6 Toluene-d8	1.37409	1.36945	1.38907	1.30841	1.36567	1.34819	AVRG		1.35915		2.07110	
$ 7 Bromofluorobenzene	0.47287	0.47746	0.46384	0.45213	0.46975	0.45752	AVRG		0.46560		2.06132	

(1001 - 1163)

1037

C0I020508

Report Date : 04-Aug-2010 09:34

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 09:28 a3ux16.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

North Canton

Work Instruction WI-NC-041A_110308
Effective _____
Data review checklist: 8260 A/8260B/624 Initial Calibration

Method (check the applicable box): ☒ 8260A ☒ 8260B ☐ 624

Analysis Date: 8.3.10 **Run batch ID:** N/A

Curve ID: M00803-IC.b **(curve ID must include instrument designation and date reference)**

Acceptance criteria is found in the applicable laboratory SOP. If item is N/A, mark as such in Notes column

Item for review	Level I Yes	Level I No	Level II Yes	Level II No
Tune:				
BFB passes, all points within 12 hr clock (24 hr for 624)	Yes		Yes	
All calibration points ID'd on Calibration Summary Form	Yes		Yes	
Documentation: Raw data and run logs present for all points	Yes		Yes	
Run log and Raw data clearly indicate method by version	Yes		Yes	
RLs: Minimum of 5 points, lowest standards at or below RL	Yes		Yes	
Linearity: 8260 CCCs ≤ 30% RSD	Yes		Yes	
Linear Regression curve fit for all >15% RSD (35% 624) r2>0.980 (r>0.990)	Yes		Yes	
Plots for all Linear Regressions printed	Yes		Yes	
Response: SPCCs all pass minimum response factors	Yes		Yes	
ICV- Second source standard Analytes 60-140% recovery, problem compounds may be allowed outside these limits, but must be evaluated (acrolein, acrylonitrile, 2-ceve, propionitrile, trans 1,4-dichloro-2-butene) Internal Standards 50-200% of recent curve	Yes		Yes	
Manual integrations: necessary, correct & documented	NA		NA	
Other: Verify Avg RF on Cal Summary matches Avg RF on Con Cal form	NA		NA	

Reviewed by Analyst/ Level I: Lary A. Wil Date: 8.4.10

Reviewed by Peer/Sup/ Level II: _____ Date: 8-5-10

By signing in "Reviewed by" above I agree that I have reviewed the data as indicated on this checklist.

*Peer/Sup only: In addition to the items above, all manual integrations in this package have been reviewed and found acceptable.

Reviewed by Peer/Sup: _____ Date: _____

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: C0I020508

Lab File ID: BFB563 BFB Injection Date: 09/13/10

Instrument ID: A3UX16 BFB Injection Time: 1041

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	48.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	80.5
175	5.0 - 9.0% of mass 174	5.4 (6.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.8 (97.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXM8987	09/13/10	1123
02	VSTD010	50NG-A9CC	UXM8988	09/13/10	1145
03	L6W2RCHK	L6W2R1AC	UXM8989	09/13/10	1207
04	L6W2RCKDUP	L6W2R1AD	UXM8990	09/13/10	1229
05	L6W2RBLK	L6W2R1AA	UXM8991	09/13/10	1251
06	PW-01 COMPOS	L6NL71AA	UXM9011	09/13/10	2003
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM8987.D
Report Date: 13-Sep-2010 13:15

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 13-SEP-2010 11:23
Lab File ID: UXM8987.D Init. Cal. Date(s): 03-AUG-2010 03-AUG-2010
Analysis Type: WATER Init. Cal. Times: 16:44 21:05
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 4 Dibromofluoromethane	0.22739	0.23554	0.23554	0.010	-3.58395	50.00000	Averaged	
$ 5 1,2-Dichloroethane-d4	0.27168	0.26019	0.26019	0.010	4.23087	50.00000	Averaged	
$ 6 Toluene-d8	1.35915	1.37104	1.37104	0.010	-0.87534	50.00000	Averaged	
$ 7 Bromofluorobenzene	0.46560	0.47395	0.47395	0.010	-1.79464	50.00000	Averaged	
8 Dichlorodifluoromethane	0.18709	0.23260	0.23260	0.010	-24.32581	50.00000	Averaged	
9 Chloromethane	0.31965	0.31516	0.31516	0.100	1.40623	50.00000	Averaged	
10 Vinyl Chloride	0.30017	0.35080	0.35080	0.010	-16.86686	20.00000	Averaged	
11 Bromomethane	50.00000	88.24927	0.17330	0.010	-76.49854	0.000e+000	Quadratic	
12 Chloroethane	50.00000	58.45314	0.17448	0.010	-16.90629	0.000e+000	Wt Linear	
13 Trichlorofluoromethane	0.20167	0.25714	0.25714	0.010	-27.50816	50.00000	Averaged	
15 Acrolein	0.03543	0.02636	0.02636	0.010	25.60375	50.00000	Averaged	
16 Acetone	0.08417	0.06107	0.06107	0.010	27.43990	50.00000	Averaged	
17 1,1-Dichloroethene	0.25290	0.24118	0.24118	0.010	4.63316	20.00000	Averaged	
18 Freon-113	0.16174	0.16649	0.16649	0.010	-2.93769	50.00000	Averaged	
19 Iodomethane	0.41628	0.40526	0.40526	0.010	2.64593	50.00000	Averaged	
20 Carbon Disulfide	0.83487	0.79398	0.79398	0.010	4.89802	50.00000	Averaged	
21 Methylene Chloride	50.00000	52.67251	0.32531	0.010	-5.34501	0.000e+000	Wt Linear	
22 Acetonitrile	0.02763	0.02487	0.02487	0.010	9.97720	50.00000	Averaged	
23 Acrylonitrile	0.08286	0.07737	0.07737	0.010	6.62757	50.00000	Averaged	
24 Methyl tert-butyl ether	0.38255	0.33144	0.33144	0.010	13.36223	50.00000	Averaged	
25 trans-1,2-Dichloroethene	0.28586	0.28767	0.28767	0.010	-0.63426	50.00000	Averaged	
26 Hexane	50.00000	41.59122	0.03955	0.010	16.81756	0.000e+000	Wt Linear	
27 Vinyl acetate	0.37986	0.21734	0.21734	0.010	42.78375	50.00000	Averaged	
28 1,1-Dichloroethane	0.46470	0.47008	0.47008	0.100	-1.15919	50.00000	Averaged	
29 tert-Butyl Alcohol	0.01300	0.00705	0.00705	0.010	45.74195	50.00000	Averaged	<-
30 2-Butanone	0.10703	0.08387	0.08387	0.010	21.63305	50.00000	Averaged	
M 31 1,2-Dichloroethene (total)	0.28965	0.29004	0.29004	0.010	-0.13343	50.00000	Averaged	
32 cis-1,2-dichloroethene	0.29344	0.29240	0.29240	0.010	0.35446	50.00000	Averaged	
33 2,2-Dichloropropane	0.29691	0.22449	0.22449	0.010	24.39041	50.00000	Averaged	
34 Bromochloromethane	0.13434	0.13233	0.13233	0.010	1.50049	50.00000	Averaged	
35 Chloroform	0.44095	0.44819	0.44819	0.010	-1.64009	20.00000	Averaged	
36 Tetrahydrofuran	50.00000	23.56395	0.04697	0.010	52.87211	0.000e+000	Wt Linear	
37 1,1,1-Trichloroethane	0.37288	0.35445	0.35445	0.010	4.94407	50.00000	Averaged	
38 1,1-Dichloropropene	0.34308	0.33592	0.33592	0.010	2.08674	50.00000	Averaged	
39 Carbon Tetrachloride	0.30099	0.30967	0.30967	0.010	-2.88384	50.00000	Averaged	
40 1,2-Dichloroethane	0.33269	0.31799	0.31799	0.010	4.41643	50.00000	Averaged	
41 Benzene	1.11517	1.10887	1.10887	0.010	0.56532	50.00000	Averaged	
42 Trichloroethene	0.27465	0.26302	0.26302	0.010	4.23570	50.00000	Averaged	
43 1,2-Dichloropropane	0.24840	0.24936	0.24936	0.010	-0.38700	20.00000	Averaged	
44 1,4-Dioxane	2500	1839	0.00177	0.001	26.44369	0.000e+000	Wt Linear	
45 Dibromomethane	0.13862	0.13111	0.13111	0.010	5.41548	50.00000	Averaged	
46 Bromodichloromethane	0.31139	0.30990	0.30990	0.010	0.47847	50.00000	Averaged	
47 2-Chloroethyl vinyl ether	0.07648	0.08605	0.08605	0.010	-12.50762	50.00000	Averaged	

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM8987.D
Report Date: 13-Sep-2010 13:15

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 13-SEP-2010 11:23
Lab File ID: UXM8987.D Init. Cal. Date(s): 03-AUG-2010 03-AUG-2010
Analysis Type: WATER Init. Cal. Times: 16:44 21:05
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.39684	0.34097	0.34097	0.010	14.07780	50.00000	Averaged
49 4-Methyl-2-pentanone	0.19976	0.15144	0.15144	0.010	24.19111	50.00000	Averaged
50 Toluene	1.64261	1.61495	1.61495	0.010	1.68403	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.48790	0.39208	0.39208	0.010	19.63994	50.00000	Averaged
52 Ethyl Methacrylate	0.44064	0.35033	0.35033	0.010	20.49477	50.00000	Averaged
53 1,1,2-Trichloroethane	0.29044	0.27304	0.27304	0.010	5.98949	50.00000	Averaged
54 1,3-Dichloropropane	0.52526	0.50377	0.50377	0.010	4.09067	50.00000	Averaged
55 Tetrachloroethene	0.30156	0.28760	0.28760	0.010	4.63090	50.00000	Averaged
56 2-Hexanone	0.17860	0.14075	0.14075	0.010	21.19259	50.00000	Averaged
57 Dibromochloromethane	0.30317	0.29866	0.29866	0.010	1.48779	50.00000	Averaged
58 1,2-Dibromoethane	0.28069	0.24965	0.24965	0.010	11.05731	50.00000	Averaged
59 Chlorobenzene	1.01536	1.01860	1.01860	0.300	-0.31909	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.36432	0.37318	0.37318	0.010	-2.43262	50.00000	Averaged
61 Ethylbenzene	0.54194	0.55021	0.55021	0.010	-1.52519	20.00000	Averaged
62 m + p-Xylene	0.67312	0.69501	0.69501	0.010	-3.25209	50.00000	Averaged
M 63 Xylenes (total)	0.67996	0.69826	0.69826	0.010	-2.69146	50.00000	Averaged
64 Xylene-o	0.69364	0.70476	0.70476	0.010	-1.60337	50.00000	Averaged
65 Styrene	1.10040	1.12895	1.12895	0.010	-2.59399	50.00000	Averaged
66 Bromoform	0.17153	0.17213	0.17213	0.100	-0.34596	50.00000	Averaged
67 Isopropylbenzene	1.69408	1.69431	1.69431	0.010	-0.01390	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	0.67378	0.60773	0.60773	0.300	9.80316	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.14130	0.13518	0.13518	0.010	4.32822	50.00000	Averaged
70 1,2,3-Trichloropropane	0.21385	0.18520	0.18520	0.010	13.39526	50.00000	Averaged
71 Bromobenzene	0.78475	0.74027	0.74027	0.010	5.66882	50.00000	Averaged
72 n-Propylbenzene	0.78580	0.77171	0.77171	0.010	1.79299	50.00000	Averaged
73 2-Chlorotoluene	0.74067	0.73215	0.73215	0.010	1.15040	50.00000	Averaged
74 1,3,5-Trimethylbenzene	2.55946	2.52081	2.52081	0.010	1.50998	50.00000	Averaged
75 4-Chlorotoluene	0.73678	0.73560	0.73560	0.010	0.15951	50.00000	Averaged
76 tert-Butylbenzene	2.16296	2.03474	2.03474	0.010	5.92805	50.00000	Averaged
77 1,2,4-Trimethylbenzene	2.63969	2.62130	2.62130	0.010	0.69661	50.00000	Averaged
78 sec-Butylbenzene	2.75512	2.70735	2.70735	0.010	1.73396	50.00000	Averaged
79 4-Isopropyltoluene	2.36019	2.31961	2.31961	0.010	1.71933	50.00000	Averaged
80 1,3-Dichlorobenzene	1.44997	1.40990	1.40990	0.010	2.76356	50.00000	Averaged
81 1,4-Dichlorobenzene	1.48897	1.45885	1.45885	0.010	2.02293	50.00000	Averaged
82 n-Butylbenzene	1.86891	1.88658	1.88658	0.010	-0.94552	50.00000	Averaged
83 1,2-Dichlorobenzene	1.46638	1.43121	1.43121	0.010	2.39853	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.13890	0.10042	0.10042	0.010	27.69926	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.91816	0.77226	0.77226	0.010	15.89001	50.00000	Averaged
86 Hexachlorobutadiene	0.38152	0.33821	0.33821	0.010	11.35059	50.00000	Averaged
87 Naphthalene	2.33235	1.62749	1.62749	0.010	30.22098	50.00000	Averaged
88 1,2,3-Trichlorobenzene	0.81388	0.67565	0.67565	0.010	16.98352	50.00000	Averaged
98 Cyclohexane	0.37214	0.38441	0.38441	0.010	-3.29810	50.00000	Averaged
143 Methyl Acetate	0.17542	0.15797	0.15797	0.010	9.94961	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM8987.D
Report Date: 13-Sep-2010 13:15

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 13-SEP-2010 11:23
Lab File ID: UXM8987.D Init. Cal. Date(s): 03-AUG-2010 03-AUG-2010
Analysis Type: WATER Init. Cal. Times: 16:44 21:05
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	0.31209	0.32438	0.32438	0.010	-3.93865	50.00000	Averaged
141 1,3,5-Trichlorobenzene	0.97215	0.89909	0.89909	0.010	7.51603	50.00000	Averaged
149 Vinyl Acetate-86	0.04355	0.02512	0.02512	0.010	42.31437	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM8988.D
Report Date: 13-Sep-2010 12:01

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux16.i Injection Date: 13-SEP-2010 11:45
Lab File ID: UXM8988.D Init. Cal. Date(s): 03-AUG-2010 03-AUG-2010
Analysis Type: WATER Init. Cal. Times: 16:44 21:05
Lab Sample ID: 50NG-A9CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\8260LLUX16.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
14 Dichlorofluoromethane	0.35257	0.37514	0.37514	0.010	-6.40173	50.00000	Averaged	
89 Ethyl Ether	0.20375	0.21252	0.21252	0.010	-4.30882	50.00000	Averaged	
91 3-Chloropropene	0.13935	0.14766	0.14766	0.010	-5.96492	50.00000	Averaged	
92 Isopropyl Ether	0.24135	0.23929	0.23929	0.010	0.85231	50.00000	Averaged	
93 2-Chloro-1,3-butadiene	0.36378	0.39909	0.39909	0.010	-9.70645	50.00000	Averaged	
94 Propionitrile	0.02813	0.02734	0.02734	0.010	2.78351	50.00000	Averaged	
95 Ethyl Acetate	0.18741	0.15378	0.15378	0.010	17.94360	50.00000	Averaged	
96 Methacrylonitrile	0.13311	0.11286	0.11286	0.010	15.21335	50.00000	Averaged	
97 Isobutanol	0.00858	0.00767	0.00767	0.010	10.57486	50.00000	Averaged	<-
99 n-Butanol	0.00717	0.00497	0.00497	0.010	30.68235	50.00000	Averaged	<-
100 Methyl Methacrylate	0.17819	0.14286	0.14286	0.010	19.82687	50.00000	Averaged	
101 2-Nitropropane	0.04095	0.03430	0.03430	0.010	16.25525	50.00000	Averaged	
103 Cyclohexanone	0.02834	0.04313	0.04313	0.010	-52.22159	50.00000	Averaged	<-
146 2-Methylnaphthalene	1.03679	0.57505	0.57505	0.010	44.53556	50.00000	Averaged	
151 t-Butyl ethyl ether	0.50948	0.43930	0.43930	0.010	13.77408	50.00000	Averaged	
152 t-Amyl methyl ether	0.46045	0.34529	0.34529	0.010	25.01055	50.00000	Averaged	
153 1,2,3-Trimethylbenzene	2.59639	2.75281	2.75281	0.010	-6.02472	50.00000	Averaged	

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L6W2R1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT — SDG Number:

Lab File ID: UXM8991.D — Lot Number: C0I020508

Date Analyzed: 09/13/10 — Time Analyzed: 12:51

Matrix: WATER — Date Extracted: 09/13/10

GC Column: DB624 ID: .18 — Extraction Method: 5030B

Instrument ID: UX16 — Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	L6KPW1AA	UXM8993.D	09/13/10	13:34
02	LAB MS/MSD	L6KPW1AC S	UXM9012.D	09/13/10	20:24
03	LAB MS/MSD	L6KPW1AD D	UXM9013.D	09/13/10	20:46
04	PW-01 Composite	L6NL71AA	UXM9011.D	09/13/10	20:03
05	CHECK SAMPLE	L6W2R1AC C	UXM8989.D	09/13/10	12:07
06	DUPLICATE CHECK	L6W2R1AD L	UXM8990.D	09/13/10	12:29
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COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0I020508 **Work Order #...:** L6W2R1AA **Matrix.....:** WATER
MB Lot-Sample #: A0I140000-090

Prep Date.....: 09/13/10 **Analysis Time..:** 12:51
Analysis Date..: 09/13/10 **Prep Batch #...:** 0257090 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Instrument ID..:** UX16
Analyst ID.....: 001644

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	5.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	**0.40 J**	**1.0**	**ug/L**	**SW846 8260B**
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	**0.21 J**	**1.0**	**ug/L**	**SW846 8260B**
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0I020508 **Work Order #...:** L6W2R1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	20	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0I020508 **Work Order #...:** L6W2R1AA **Matrix.....:** WATER

NOTE(S):

J Estimated result. Result is less than RL.

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I020508

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	INTRA-LAB QC	100	99	98	94	00
02	PW-01 Composite	106	97	106	98	00
03	METHOD BLK. L6W2R1AA	95	95	96	92	00
04	LCS L6W2R1AC	105	98	100	104	00
05	LAB MS/MSD D	100	93	103	97	00
06	LCSD L6W2R1AD	99	97	100	101	00
07	LAB MS/MSD S	100	95	103	103	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(73-122)
SRG02	= 1,2-Dichloroethane-d4	(61-128)
SRG03	= Toluene-d8	(76-110)
SRG04	= 4-Bromofluorobenzene	(74-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0I140000 WO #: L6W2R1AC
BATCH: 0257090

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	9.72	97	63 - 130	
Trichloroethene	10.0	9.40	94	75 - 122	
Benzene	10.0	9.84	98	80 - 116	
Toluene	10.0	9.41	94	74 - 119	
Chlorobenzene	10.0	9.62	96	76 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0I140000 WO #: L6W2R1AD
BATCH: 0257090

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	9.66	97	63 - 130	
Trichloroethene	10.0	9.56	96	75 - 122	
Benzene	10.0	9.91	99	80 - 116	
Toluene	10.0	9.72	97	74 - 119	
Chlorobenzene	10.0	9.80	98	76 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0I040423 WO #: L6KPW1AC
BATCH: 0257090

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	10.0	ND	9.65	97	62 - 130	
Trichloroethene	10.0	ND	9.36	94	62 - 130	
Benzene	10.0	ND	9.65	97	78 - 118	
Toluene	10.0	ND	9.81	98	70 - 119	
Chlorobenzene	10.0	ND	9.46	95	76 - 117	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0I040423 WO #: L6KPW1AD
BATCH: 0257090

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	9.57	96	0.87	20	62 - 130	
Trichloroethene	10.0	9.19	92	1.9	20	62 - 130	
Benzene	10.0	9.46	95	2.0	20	78 - 118	
Toluene	10.0	9.51	95	3.1	20	70 - 119	
Chlorobenzene	10.0	9.22	92	2.6	20	76 - 117	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TALCAN Case No.: SAS No.: SDG No.: C0I020508

Lab File ID (Standard): UXM8987 Date Analyzed: 09/13/10

Instrument ID: A3UX16 Time Analyzed: 1123

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 (CBZ) AREA #	RT	IS2 (DCB) AREA #	RT	IS3 AREA #	RT
	12 HOUR STD	955765	8.41	533894	10.65	1413269	5.72
	UPPER LIMIT	1911530	8.91	1067788	11.15	2826538	6.22
	LOWER LIMIT	477883	7.91	266947	10.15	706635	5.22
	EPA SAMPLE NO.						
01	L6W2RCHK	939544	8.41	527643	10.65	1377336	5.72
02	L6W2RCKDUP	953024	8.41	516705	10.65	1396735	5.72
03	L6W2RBLK	946147	8.41	495884	10.65	1454659	5.72
04	PW-01 COMPOS	688788	8.41	399971	10.65	1190380	5.72
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Lab File ID: S0826DFT DFTPP Injection Date: 08/26/10

Instrument ID: 71 DFTPP Injection Time: 0616

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.4
68	Less than 2.0% of mass 69	0.5 (1.1)1
69	Mass 69 relative abundance	44.3
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	56.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	4.58
441	Present, but less than mass 443	9.6
442	40.0 - 100.0% of mass 198	65.0
443	17.0 - 23.0% of mass 442	11.2 (17.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	S0826CCC	08/26/10	0632
02	SSTD0.4	SSTD0.4	S0826CC1	08/26/10	0652
03	SSTD2	SSTD2	S0826CC2	08/26/10	0711
04	SSTD10	SSTD10	S0826CC4	08/26/10	0731
05	SSTD20	SSTD20	S0826CC5	08/26/10	0750
06	SSTD40	SSTD40	S0826CC6	08/26/10	0810
07	SSTD60	SSTD60	S0826CC7	08/26/10	0830
08	SSTD80	SSTD80	S0826CC8	08/26/10	0850
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 26-Aug-2010 12:29

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 26-AUG-2010 06:32
End Cal Date : 26-AUG-2010 08:50
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\71.i\s0826108270C.b\11b.m
Last Edit : 26-Aug-2010 12:24 bachas

Calibration File Names:
Level 1: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC1.D
Level 2: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC2.D
Level 3: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CCC.D
Level 4: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC4.D
Level 5: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC5.D
Level 6: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC6.D
Level 7: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC7.D
Level 8: \\PITSVR06\D\chem\71.i\s0826108270C.b\S0826CC8.D

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
198 1,4-Dioxane	+++++	0.24188	0.37150	0.39124	0.34342	0.34814						
	0.36465	0.33615					AVRG		0.34243		14.05834	
226 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
227 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
46 2,4-Toluenediamene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
47 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
48 2,4-Dichlorophenol	0.27521	0.29402	0.30895	0.31370	0.32720	0.33714						
	0.34256	0.33684					AVRG		0.31695		7.45351	
49 Benzoic Acid	+++++	+++++	0.21265	0.22333	0.24139	0.25145						
	0.26166	0.26265					AVRG		0.24219		8.48738	
50 1,2,4-Trichlorobenzene	0.34346	0.35192	0.34885	0.35893	0.37056	0.37491						
	0.38936	0.38622					AVRG		0.36553		4.74220	
51 Naphthalene	1.09672	1.06319	1.06814	1.08752	1.12055	1.13098						
	1.16809	1.15309					AVRG		1.11103		3.46923	
52 4-Chloroaniline	0.40805	0.43912	0.44912	0.46377	0.47769	0.47834						
	0.48292	0.47558					AVRG		0.45933		5.63012	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
59 4-Chloro-3-Methylphenol	0.24029	0.27890	0.29088	0.29608	0.30867	0.29775						
	0.30206	0.30032					AVRG		0.28937		7.49054	
60 p-Phenylene diamine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
61 Safrole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
62 2-Methylnaphthalene	0.68541	0.65216	0.67183	0.69536	0.71963	0.73754						
	0.76111	0.76143					AVRG		0.71056		5.76012	
63 1-Methylnaphthalene	0.63180	0.62269	0.64450	0.66899	0.68874	0.71582						
	0.74579	0.73966					AVRG		0.68225		7.05045	
64 Hexachlorocyclopentadiene	3903	25852	62951	183742	409403	848941						
	1257831	1653995					QUAD	0.13908	1.79894	-0.02097	0.99959	
65 1,2,4,5-Tetrachlorobenzene	0.64476	0.65104	0.63637	0.65985	0.71782	0.75646						
	0.76754	0.77118					AVRG		0.70063		8.39896	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	+++++	0.23754	0.24866	0.26922	0.28087	0.29079						
	0.29462	0.28827					AVRG		0.27285		8.11604	
79 Acenaphthylene	1.41511	1.63534	1.67611	1.76369	1.89303	2.02711						
	2.07955	2.14389					AVRG		1.82923		13.73285	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	+++++	0.25595	0.27507	0.29742	0.31646	0.31535						
	0.31457	0.31553					AVRG		0.29862		8.10602	
82 Acenaphthene	1.08571	1.05766	1.03037	1.08262	1.14118	1.23078						
	1.26172	1.28548					AVRG		1.14694		8.64845	
83 2,4-Dinitrophenol	+++++	+++++	0.13225	0.14820	0.16563	0.17202						
	0.18101	0.18597					AVRG		0.16418		12.47198	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
92 2-Naphthylamine	0.99100	1.08407	1.06460	1.05420	1.04085	0.98906						
	0.94345	+++++					AVRG		1.02389		4.92382	
93 Diethylphthalate	1.10902	1.17087	1.17596	1.17492	1.23219	1.23106						
	1.24271	1.23598					AVRG		1.19659		3.91471	
94 Fluorene	1.05985	1.20543	1.18105	1.27611	1.36723	1.49885						
	1.55335	1.57937					AVRG		1.34016		14.23424	
95 4-Chlorophenyl-phenylether	0.61897	0.59899	0.59896	0.62972	0.69201	0.76696						
	0.79876	0.81381					AVRG		0.68977		13.23417	
96 4-Nitroaniline	+++++	0.24251	0.28008	0.28492	0.30687	0.30972						
	0.30718	0.25779					AVRG		0.28415		9.25107	
97 5-Nitro-o-toluidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
98 4,6-Dinitro-2-methylphenol	+++++	+++++	0.13618	0.15596	0.16051	0.16234						
	0.16963	0.17228					AVRG		0.15948		8.08560	

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
110 Dimethoate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
111 Pentachlorophenol	9951	25597	76987	161642	248734	329120						
	507293	691927					QUAD	0.17238	6.44586	-0.63832	0.99945	
112 Pentachloronitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
113 4-Aminobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
114 Pronamide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
115 Phenanthrene	1.08557	1.14576	1.12444	1.21629	1.26979	1.39841						
	1.50612	1.54173					AVRG		1.28601		13.70837	
116 Anthracene	1.02491	1.10868	1.13411	1.21816	1.27889	1.41298						
	1.47293	1.46441					AVRG		1.26438		13.58397	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
117 Dinoseb	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
118 Disulfoton	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
119 Carbazole	0.84372	0.96727	0.96043	1.00052	1.04685	1.07777						
	1.12337	1.16458					AVRG		1.02306		10.00604	
120 Di-n-Butylphthalate	+++++	1.03535	1.14533	1.23741	1.29621	1.33529						
	1.41121	1.43402					AVRG		1.27069		11.28840	
121 4-Nitroquinoline 1-oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
122 Methapyrilene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
123 Fluoranthene	21234	113735	231613	604950	1253460	2510680						
	3890501	5263146					QUAD	0.07426	0.84545	-0.01039	0.99962	

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Compound	0.4000000 Level 1 / 60.0000 Level 7	2.0000 Level 2 / 80.0000 Level 8	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
124 Benzidine	+++++	+++++	0.56517	0.48340	0.49621	0.43288						
	0.44083	0.40512					AVRG		0.47060		12.15484	
125 Pyrene	1.34423	1.53040	1.48050	1.52291	1.55743	1.61137						
	1.66287	1.66159					AVRG		1.54641		6.79087	
126 Aramite 1	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
M 191 Aramite, Total	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
127 Aramite 2	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
128 p-Dimethylamino azobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
129 p-Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

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	60.0000 Level 7	80.0000 Level 8										
130 Famphur	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
131 Butylbenzylphthalate	+++++	0.60474	0.62413	0.64310	0.64259	0.61948						
	0.62120	0.56900					AVRG		0.61775		4.10626	
132 3,3'-Dimethylbenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
133 3,3'-Dimethoxybenzidine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
134 2-Acetylaminofluorene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
135 3,3'-Dichlorobenzidine	+++++	0.28923	0.33345	0.35130	0.35503	0.36596						
	0.39562	0.38984					AVRG		0.35435		10.16492	
136 Benzo(a)Anthracene	1.12710	1.08793	1.14921	1.10665	1.18001	1.21248						
	1.28348	1.34591					AVRG		1.18660		7.57428	

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Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
137 Chrysene	1.05886	1.05205	0.98758	1.07329	1.07309	1.15457						
	1.24359	1.20277					AVRG		1.10573		7.79207	
138 4,4'-Methylene bis(o-chloroan	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
139 bis(2-ethylhexyl)Phthalate	+++++	0.69515	0.75783	0.82992	0.86964	0.89471						
	0.93570	0.90091					AVRG		0.84055		10.25418	
140 Di-n-octylphthalate	+++++	69033	153947	426224	888789	1813276						
	2803773	3716173					QUAD	0.20778	0.40713	-0.00079	0.99907	
141 Benzo(b)fluoranthene	13941	63986	126421	356894	735256	1911381						
	2935872	4115454					QUAD	0.24678	0.42346	-0.00270	0.99656	
204 6-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
142 Benzo(k)fluoranthene	13185	73616	143486	335034	763685	1417913						
	2472574	3650431					QUAD	0.08049	0.56870	-0.00684	0.99890	

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	60.0000 Level 7	80.0000 Level 8										
143 7,12-dimethylbenz[a]anthracen	+++++	29733	60388	154378	350080	823163						
	1288318	1845728					QUAD	0.27927	0.96785	-0.01532	0.99834	
144 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
145 Hexachlorophene product	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
146 Benzo(a)pyrene	0.83660	0.91050	0.93321	0.96885	1.02394	1.11756						
	1.17484	1.21188					AVRG		1.02217		13.12852	
148 3-Methylcholanthrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
149 Indeno(1,2,3-cd)pyrene	9042	51714	97183	254888	512681	1046722						
	1738627	2594572					QUAD	0.08616	0.79330	-0.01311	0.99958	
150 Dibenz(a,h)anthracene	7416	40511	86129	211460	432005	878326						
	1488515	2275721					QUAD	0.08677	0.94862	-0.01992	0.99951	

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 26-AUG-2010 06:32
End Cal Date : 26-AUG-2010 08:50
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\71.i\s0826108270C.b\llb.m
Last Edit : 26-Aug-2010 12:24 bachas

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
151 Benzo(g,h,i)perylene	8086	42338	83980	204240	408420	826163						
	1292061	1874377					QUAD	0.06023	1.00435	-0.01737	0.99983	
211 Benzenethiol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
212 Kepone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
213 Dibenzo(a,h) acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
214 Methyl parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
215 Parathion	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
216 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

77

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Lab File ID: S0914DF1 DFTPP Injection Date: 09/14/10

Instrument ID: 71 DFTPP Injection Time: 1339

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.5
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Mass 69 relative abundance	46.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	57.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.0
365	Greater than 1.0% of mass 198	6.12
441	Present, but less than mass 443	10.8
442	Greater than 40.0% of mass 198	65.5
443	17.0 - 23.0% of mass 442	12.0 (18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD4	SSTD4	S0914CC1	09/14/10	1420
02	INTRA-LAB BL	L6WLF1AA	S0914001	09/14/10	1439
03	INTRA-LAB CH	L6WLF1AC	S0914002	09/14/10	1539
04	INTRA-LAB CH	L6WLF1AD	S0914003	09/14/10	1559
05	PW-03 0-6"	L6G831AC	S0914010	09/14/10	1738
06	PW-03 6-18"	L6G841AC	S0914011	09/14/10	1758
07	PW-03 18-30"	L6G851AC	S0914012	09/14/10	1818
08	PW-04 0-6"	L6HF51AD	S0914013	09/14/10	1838
09	PW-04 6-18"	L6HF81AC	S0914014	09/14/10	1858
10	PW-04 18-30"	L6HGD1AC	S0914015	09/14/10	1918
11	PW-05 0-6"	L6HGE1AC	S0914016	09/14/10	1938
12	PW-05 6-18"	L6HGF1AC	S0914017	09/14/10	1958
13	PW-05 18-30"	L6HGH1AC	S0914018	09/14/10	2017
14	RINSATE BLAN	L6M4H1AC	S0914019	09/14/10	2057
15					
16					
17					
18					
19					
20					
21					
22					

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 71.i
Lab File ID: S0914CC1.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\pitsvr06\D\chem\71.i\s091410.b\llb.m

Injection Date: 14-SEP-2010 14:20
Init. Cal. Date(s): 26-AUG-2010 27-AUG-2010
Init. Cal. Times: 06:32 11:55
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
198 1,4-Dioxane	0.34243	0.26337	0.26337	0.010	23.08737	25.00000	Averaged
10 N-Nitrosodimethylamine	0.62213	0.62173	0.62173	0.010	0.06448	25.00000	Averaged
9 Pyridine	1.15028	1.27753	1.27753	0.010	-11.06244	25.00000	Averaged
16 Methyl methanesulfonate	0.62429	0.68503	0.68503	0.010	-9.72989	25.00000	Averaged
206 Benzaldehyde	4.00000	3.03202	0.89989	0.010	24.19938	25.00000	Quadratic
21 Aniline	2.09413	1.91890	1.91890	0.010	8.36770	25.00000	Averaged
22 Phenol	1.66934	1.60145	1.60145	0.010	4.06702	20.00000	Averaged
23 bis(2-Chloroethyl)ether	1.29455	1.24814	1.24814	0.010	3.58554	25.00000	Averaged
24 2-Chlorophenol	1.45921	1.45396	1.45396	0.010	0.35965	25.00000	Averaged
26 1,3-Dichlorobenzene	1.62921	1.63106	1.63106	0.010	-0.11339	25.00000	Averaged
27 1,4-Dichlorobenzene	1.66231	1.62608	1.62608	0.010	2.17921	20.00000	Averaged
28 1,2-Dichlorobenzene	1.56665	1.51339	1.51339	0.010	3.39951	25.00000	Averaged
29 Benzyl Alcohol	0.87818	0.70591	0.70591	0.010	19.61652	25.00000	Averaged
30 2-Methylphenol	1.30315	1.20852	1.20852	0.010	7.26187	25.00000	Averaged
31 2,2'-oxybis(1-Chloropropane	1.43788	1.32505	1.32505	0.010	7.84698	25.00000	Averaged
217 Indene	2.47311	2.28627	2.28627	0.010	7.55477	25.00000	Averaged
37 Acetophenone	1.92319	1.71656	1.71656	0.010	10.74412	25.00000	Averaged
32 N-Nitroso-di-n-propylamine	0.87571	0.79989	0.79989	0.050	8.65801	50.00000	Averaged
192 4-Methylphenol	1.28453	1.12009	1.12009	0.010	12.80129	25.00000	Averaged
34 Hexachloroethane	0.63622	0.63163	0.63163	0.010	0.72108	25.00000	Averaged
35 Nitrobenzene	0.35651	0.39083	0.39083	0.010	-9.62561	25.00000	Averaged
36 N-Nitrosopyrrolidine	0.63652	0.53829	0.53829	0.010	15.43152	25.00000	Averaged
41 Isophorone	0.62179	0.63527	0.63527	0.010	-2.16815	25.00000	Averaged
42 2-Nitrophenol	0.19416	0.19517	0.19517	0.010	-0.52180	20.00000	Averaged
43 2,4-Dimethylphenol	0.35637	0.36270	0.36270	0.010	-1.77494	25.00000	Averaged
44 bis(2-Chloroethoxy)methane	0.39378	0.37918	0.37918	0.010	3.70790	25.00000	Averaged
48 2,4-Dichlorophenol	0.31695	0.31724	0.31724	0.010	-0.08950	20.00000	Averaged
49 Benzoic Acid	0.24219	0.18272	0.18272	0.010	24.55331	25.00000	Averaged
50 1,2,4-Trichlorobenzene	0.36553	0.38285	0.38285	0.010	-4.73885	25.00000	Averaged
51 Naphthalene	1.11103	1.05903	1.05903	0.010	4.68097	25.00000	Averaged
52 4-Chloroaniline	0.45933	0.42987	0.42987	0.010	6.41374	25.00000	Averaged
54 2,6-Dichlorophenol	0.31361	0.28868	0.28868	0.010	7.94971	25.00000	Averaged
56 Hexachlorobutadiene	0.21774	0.22790	0.22790	0.010	-4.66510	20.00000	Averaged
208 Caprolactam	0.09537	0.07724	0.07724	0.010	19.01016	25.00000	Averaged
59 4-Chloro-3-Methylphenol	0.28937	0.26541	0.26541	0.010	8.27967	20.00000	Averaged
62 2-Methylnaphthalene	0.71056	0.62233	0.62233	0.010	12.41662	25.00000	Averaged
63 1-Methylnaphthalene	0.68225	0.58130	0.58130	0.010	14.79622	25.00000	Averaged
64 Hexachlorocyclopentadiene	4.00000	3.92451	0.39167	0.050	1.88716	25.00000	Quadratic
65 1,2,4,5-Tetrachlorobenzene	0.70063	0.77994	0.77994	0.010	-11.31945	25.00000	Averaged
66 2,4,6-Trichlorophenol	0.42281	0.44522	0.44522	0.010	-5.29922	20.00000	Averaged
67 2,4,5-Trichlorophenol	0.41251	0.43457	0.43457	0.010	-5.34807	25.00000	Averaged
209 1,1'-Biphenyl	1.73133	1.69565	1.69565	0.010	2.06114	25.00000	Averaged

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 71.i
Lab File ID: S0914CC1.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\pitsvr06\D\chem\71.i\s091410.b\llb.m

Injection Date: 14-SEP-2010 14:20
Init. Cal. Date(s): 26-AUG-2010 27-AUG-2010
Init. Cal. Times: 06:32 11:55
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
70 2-Chloronaphthalene	1.28730	1.29763	1.29763	0.010	-0.80209	25.00000	Averaged
73 2-Nitroaniline	0.32546	0.33606	0.33606	0.010	-3.25757	25.00000	Averaged
76 Dimethylphthalate	1.28597	1.27930	1.27930	0.010	0.51906	25.00000	Averaged
78 2,6-Dinitrotoluene	0.27285	0.24609	0.24609	0.010	9.80934	25.00000	Averaged
79 Acenaphthylene	1.82923	1.75505	1.75505	0.010	4.05499	25.00000	Averaged
81 3-Nitroaniline	0.29862	0.28900	0.28900	0.010	3.22192	25.00000	Averaged
82 Acenaphthene	1.14694	1.05121	1.05121	0.010	8.34633	20.00000	Averaged
83 2,4-Dinitrophenol	0.16418	0.12176	0.12176	0.050	25.83973†	50.00000	Averaged
85 4-Nitrophenol	0.20957	0.27689	0.27689	0.050	-32.12002†	50.00000	Averaged
86 Dibenzofuran	1.70087	1.53758	1.53758	0.010	9.60030	25.00000	Averaged
87 2,4-Dinitrotoluene	0.38579	0.34599	0.34599	0.010	10.31676	25.00000	Averaged
92 2-Naphthylamine	1.02389	0.99737	0.99737	0.010	2.58995	25.00000	Averaged
91 2,3,5,6-Tetrachlorophenol	4.00000	4.26741	0.31533	0.010	-6.68513	25.00000	Quadratic
88 2,3,4,6-Tetrachlorophenol	0.32849	0.28699	0.28699	0.010	12.63533	25.00000	Averaged
93 Diethylphthalate	1.19659	1.13116	1.13116	0.010	5.46782	25.00000	Averaged
94 Fluorene	1.34016	1.16409	1.16409	0.010	13.13750	25.00000	Averaged
95 4-Chlorophenyl-phenylether	0.68977	0.60258	0.60258	0.010	12.64096	25.00000	Averaged
96 4-Nitroaniline	0.28415	0.28738	0.28738	0.010	-1.13658	25.00000	Averaged
98 4,6-Dinitro-2-methylphenol	0.15948	0.14225	0.14225	0.010	10.80253	25.00000	Averaged
99 N-Nitrosodiphenylamine (1)	0.59356	0.58919	0.58919	0.010	0.73569	20.00000	Averaged
100 1,2-Diphenylhydrazine	0.96162	1.10932	1.10932	0.010	-15.35920	25.00000	Averaged
106 4-Bromophenyl-phenylether	0.25708	0.24093	0.24093	0.010	6.28216	25.00000	Averaged
107 Hexachlorobenzene	0.27117	0.25237	0.25237	0.010	6.93192	25.00000	Averaged
210 Atrazine	0.23827	0.23438	0.23438	0.010	1.63360	25.00000	Averaged
111 Pentachlorophenol	10.00000	9.85911	0.13377	0.010	1.40893	20.00000	Quadratic
115 Phenanthrene	1.28601	1.13609	1.13609	0.010	11.65822	25.00000	Averaged
116 Anthracene	1.26438	1.14928	1.14928	0.010	9.10342	25.00000	Averaged
119 Carbazole	1.02306	0.96740	0.96740	0.010	5.44142	25.00000	Averaged
120 Di-n-Butylphthalate	1.27069	1.18735	1.18735	0.010	6.55811	25.00000	Averaged
123 Fluoranthene	4.00000	3.94993	0.99846	0.010	1.25166	20.00000	Quadratic
124 Benzidine	0.47060	0.46046	0.46046	0.010	2.15469	25.00000	Averaged
125 Pyrene	1.54641	1.34635	1.34635	0.010	12.93690	25.00000	Averaged
131 Butylbenzylphthalate	0.61775	0.60813	0.60813	0.010	1.55685	25.00000	Averaged
135 3,3'-Dichlorobenzidine	0.35435	0.38919	0.38919	0.010	-9.83274	25.00000	Averaged
136 Benzo(a)Anthracene	1.18660	1.16198	1.16198	0.010	2.07438	25.00000	Averaged
137 Chrysene	1.10573	0.94078	0.94078	0.010	14.91731	25.00000	Averaged
139 bis(2-ethylhexyl)Phthalate	0.84055	0.76494	0.76494	0.010	8.99565	25.00000	Averaged
140 Di-n-octylphthalate	4.00000	4.16260	1.53765	0.010	-4.06508	20.00000	Quadratic
141 Benzo(b)fluoranthene	4.00000	4.24107	1.34406	0.010	-6.02682	25.00000	Quadratic
142 Benzo(k)fluoranthene	4.00000	3.56529	1.29431	0.010	10.86773	25.00000	Quadratic
143 7,12-dimethylbenz[a]anthrac	4.00000	4.29751	0.53524	0.010	-7.43775	25.00000	Quadratic
146 Benzo(a)pyrene	1.02217	0.95848	0.95848	0.010	6.23166	20.00000	Averaged

Test America Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 71.i
Lab File ID: S0914CC1.D
Analysis Type:
Lab Sample ID: sstd4
Method: \\pitsvr06\D\chem\71.i\s091410.b\llb.m

Injection Date: 14-SEP-2010 14:20
Init. Cal. Date(s): 26-AUG-2010 27-AUG-2010
Init. Cal. Times: 06:32 11:55
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF4	CCAL RRF4	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
149 Indeno(1,2,3-cd)pyrene	4.00000	4.01270	1.05657	0.010	-0.31749	25.00000	Quadratic
150 Dibenz(a,h)anthracene	4.00000	4.00139	0.87973	0.010	-0.03480	25.00000	Quadratic
151 Benzo(g,h,i)perylene	4.00000	4.17589	0.92694	0.010	-4.39722	25.00000	Quadratic
$ 154 Nitrobenzene-d5	0.34951	0.39672	0.39672	0.010	-13.50922	25.00000	Averaged
$ 155 2-Fluorobiphenyl	1.40336	1.47236	1.47236	0.010	-4.91682	25.00000	Averaged
$ 156 Terphenyl-d14	0.93955	0.83545	0.83545	0.010	11.07956	25.00000	Averaged
$ 157 Phenol-d5	1.54903	1.54590	1.54590	0.010	0.20216	25.00000	Averaged
$ 158 2-Fluorophenol	1.16698	1.25264	1.25264	0.010	-7.34024	25.00000	Averaged
$ 159 2,4,6-Tribromophenol	4.00000	4.49357	0.11879	0.010	-12.33931	25.00000	Quadratic
$ 186 2-Chlorophenol-d4	1.41327	1.36907	1.36907	0.010	3.12751	25.00000	Averaged
$ 187 1,2-Dichlorobenzene-d4	0.97526	0.95971	0.95971	0.010	1.59480	25.00000	Averaged

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L6WLF1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: S0914001.

Lot Number: C0I020508

Date Analyzed: 09/14/10

Time Analyzed: 14:39

Matrix: WATER

Date Extracted:09/13/10

GC Column: DB5MS ID: .25

Extraction Method:

Instrument ID: 71

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	PW-03 0-6"	L6G831AC	S0914010.	09/14/10	17:38
02	PW-03 6-18"	L6G841AC	S0914011.	09/14/10	17:58
03	PW-03 18-30"	L6G851AC	S0914012.	09/14/10	18:18
04	PW-04 0-6"	L6HF51AD	S0914013.	09/14/10	18:38
05	PW-04 6-18"	L6HF81AC	S0914014.	09/14/10	18:58
06	PW-04 18-30"	L6HGD1AC	S0914015.	09/14/10	19:18
07	PW-05 0-6"	L6HGE1AC	S0914016.	09/14/10	19:38
08	PW-05 6-18"	L6HGF1AC	S0914017.	09/14/10	19:58
09	PW-05 18-30"	L6HGH1AC	S0914018.	09/14/10	20:17
10	Rinsate Blank	L6M4H1AC	S0914019.	09/14/10	20:57
11	CHECK SAMPLE	L6WLF1AC C	S0914002.	09/14/10	15:39
12	DUPLICATE CHECK	L6WLF1AD L	S0914003.	09/14/10	15:59
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30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C0I020508	Work Order #...: L6WLF1AA	Matrix.....: WATER
MB Lot-Sample #: C0I130000-315		
	Prep Date.....: 09/13/10	Analysis Time..: 14:39
Analysis Date..: 09/14/10	Prep Batch #...: 0256315	Final Wgt/Vol..: 0.5 mL
Dilution Factor: 1	Initial Wgt/Vol: 1000 mL	Instrument ID..: 71
	Analyst ID.....: 045183	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	2.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenzo(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	91	(23 - 112)
Terphenyl-d14	83	(10 - 132)
2-Fluorobiphenyl	88	(19 - 107)
2-Fluorophenol	81	(10 - 111)
Phenol-d5	80	(15 - 112)
2,4,6-Tribromophenol	73	(16 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8270C SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I020508

Extraction: XXI514201

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	PW-03 0-6"	64	47	64	46	38	55	00
02	PW-03 6-18"	80	58	82	79	70	75	00
03	PW-03 18-30"	84	55	82	82	73	71	00
04	PW-04 0-6"	83	69	82	81	73	73	00
05	PW-04 6-18"	85	64	85	83	74	77	00
06	PW-04 18-30"	75	47	70	69	60	61	00
07	PW-05 0-6"	88	67	89	79	73	83	00
08	PW-05 6-18"	100	78	105	95	89	95	00
09	PW-05 18-30"	21 *	80	75	14	49	88	01
10	Rinsate Blank	103	106	101	98	93	92	00
11	METHOD BLK. L6WLF1AA	91	83	88	81	80	73	00
12	LCS L6WLF1AC	89	59	91	81	77	81	00
13	LCSD L6WLF1AD	76	62	75	55	47	66	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(23-112)
SRG02	= Terphenyl-d14	(10-132)
SRG03	= 2-Fluorobiphenyl	(19-107)
SRG04	= 2-Fluorophenol	(10-111)
SRG05	= Phenol-d5	(15-112)
SRG06	= 2,4,6-Tribromophenol	(16-122)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I130000 WO #: L6WLF1AC
BATCH: 0256315

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Acenaphthene	10.0	6.73	67	35 - 99	
4-Nitrophenol	10.0	10.8	108	29 - 115	
2,4-Dinitrotoluene	10.0	8.61	86	37 - 115	
Pentachlorophenol	10.0	6.48	65	15 - 111	
Pyrene	10.0	6.62	66	35 - 106	
4-Methylphenol	20.0	15.3	76	32 - 100	
Hexachloroethane	10.0	5.50	55	32 - 94	
Naphthalene	10.0	6.31	63	35 - 97	
4-Bromophenyl phenyl ethe	10.0	6.39	64	37 - 104	
Butyl benzyl phthalate	10.0	6.87	69	36 - 108	
Phenol	10.0	7.39	74	32 - 95	
2-Chlorophenol	10.0	7.28	73	31 - 99	
1,4-Dichlorobenzene	10.0	5.58	56	34 - 93	
N-Nitrosodi-n-propylamine	10.0	6.55	65	34 - 101	
1,2,4-Trichlorobenzene	10.0	6.24	62	34 - 96	
4-Chloro-3-methylphenol	10.0	7.73	77	35 - 104	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

SW846 8270C CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I130000 WO #: L6WLF1AD
BATCH: 0256315

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Phenol	10.0	5.24	52	32 - 95	
2-Chlorophenol	10.0	5.92	59	31 - 99	
1,4-Dichlorobenzene	10.0	5.74	57	34 - 93	
N-Nitrosodi-n-propylamine	10.0	6.18	62	34 - 101	
1,2,4-Trichlorobenzene	10.0	6.33	63	34 - 96	
4-Chloro-3-methylphenol	10.0	5.40	54	35 - 104	
Acenaphthene	10.0	6.76	68	35 - 99	
4-Nitrophenol	10.0	6.91	69	29 - 115	p
2,4-Dinitrotoluene	10.0	7.90	79	37 - 115	
Pentachlorophenol	10.0	4.78	48	15 - 111	
Pyrene	10.0	6.66	67	35 - 106	
4-Methylphenol	20.0	11.1	55	32 - 100	
Hexachloroethane	10.0	5.71	57	32 - 94	
Naphthalene	10.0	6.27	63	35 - 97	
4-Bromophenyl phenyl ethe	10.0	6.17	62	37 - 104	
Butyl benzyl phthalate	10.0	7.23	72	36 - 108	

NOTES(S):

p Relative percent difference (RPD) is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 0 out of 16 outside limits

COMMENTS:

FORM III

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0I020508

Lab File ID (Standard): S0914CC1 Date Analyzed: 09/14/10

Instrument ID: 71 Time Analyzed: 1420

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	157164	3.97	490163	4.92	206609	6.23
	UPPER LIMIT	314328	4.47	980326	5.42	413218	6.73
	LOWER LIMIT	78582	3.47	245082	4.42	103305	5.73
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	140686	3.98	462454	4.93	203913	6.23
02	INTRA-LAB CH	130892	3.98	414305	4.92	178621	6.23
03	INTRA-LAB CH	130334	3.98	419846	4.93	180089	6.23
04	PW-03 0-6"	167161	3.97	552558	4.92	237855	6.22
05	PW-03 6-18"	156023	3.97	539952	4.92	226577	6.22
06	PW-03 18-30"	149100	3.97	511588	4.92	214899	6.22
07	PW-04 0-6"	147757	3.98	515649	4.92	213620	6.23
08	PW-04 6-18"	149666	3.97	514619	4.92	209635	6.22
09	PW-04 18-30"	146950	3.97	492203	4.92	208109	6.22
10	PW-05 0-6"	149081	3.97	486091	4.92	196290	6.22
11	PW-05 6-18"	141470	3.97	467271	4.92	191392	6.22
12	PW-05 18-30"	140833	3.97	476780	4.92	197302	6.22
13	RINSATE BLAN	145318	3.97	471863	4.92	208558	6.22
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0I020508

Lab File ID (Standard): S0914CC1 Date Analyzed: 09/14/10

Instrument ID: 71 Time Analyzed: 1420

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	259658		7.33		202657		9.31		162216		10.39	
	UPPER LIMIT	519316		7.83		405314		9.81		324432		10.89	
	LOWER LIMIT	129829		6.83		101329		8.81		81108		9.89	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	306790		7.33		222415		9.32		189042		10.39	
02	INTRA-LAB CH	251347		7.33		227448		9.31		160893		10.38	
03	INTRA-LAB CH	256338		7.33		216304		9.31		155795		10.39	
04	PW-03 0-6"	321546		7.32		233735		9.32		216554		10.42	
05	PW-03 6-18"	296461		7.32		207758		9.31		198139		10.40	
06	PW-03 18-30"	298955		7.32		201829		9.32		184391		10.41	
07	PW-04 0-6"	291172		7.33		205214		9.31		182733		10.39	
08	PW-04 6-18"	281787		7.32		202569		9.31		189475		10.38	
09	PW-04 18-30"	278332		7.32		199419		9.31		184334		10.38	
10	PW-05 0-6"	263208		7.33		181231		9.31		192805		10.37	
11	PW-05 6-18"	264068		7.32		198910		9.31		211550		10.37	
12	PW-05 18-30"	263994		7.32		176390		9.31		183475		10.38	
13	RINSATE BLAN	256989		7.32		188022		9.31		186575		10.36	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8D

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: METHODS

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/13/10 09/13/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	09/13/10	1516		
02		M1232	09/13/10	1537		
03		M1242	09/13/10	1557		
04		M1248	09/13/10	1617		
05		M1262	09/13/10	1638		
06		M1268	09/13/10	1658		
07		XL1660	09/13/10	1718		
08		L1660	09/13/10	1739		
09		ML1660	09/13/10	1759		
10		M1660	09/13/10	1820		
11		MH1660	09/13/10	1840		
12		H1660	09/13/10	1900		
13		XH1660	09/13/10	1921		
14		ICV2154	09/13/10	1941		
15		ICV1232	09/13/10	2001		
16		ICV1242	09/13/10	2022		
17		ICV1248	09/13/10	2042		
18		ICV1262	09/13/10	2102		
19		ICV1268	09/13/10	2123		
20		ICV1660	09/13/10	2143		
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0I020508

GC Column: MR-1 ID: 0.53 (mm) Init. Calib. Date(s): 09/13/10 09/13/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 12.97 TCX: 5.99

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	PW-03 0-6"	L6G831AA	09/13/10	2224	13.00*	6.00
02	PW-03 6-18"	L6G841AA	09/13/10	2244	13.00	6.00
03	PW-03 18-30"	L6G851AA	09/13/10	2304	13.00	6.00
04	PW-04 0-6"	L6HF51AC	09/13/10	2325	13.00	6.00
05	PW-04 6-18"	L6HF81AA	09/13/10	2345	13.00	6.00
06	PW-04 18-30"	L6HGD1AA	09/14/10	0006	13.00	6.00
07	PW-05 0-6"	L6HGE1AA	09/14/10	0026	13.00	6.00
08	PW-05 6-18"	L6HGF1AA	09/14/10	0046	13.00	6.00
09	PW-05 18-30"	L6HGH1AA	09/14/10	0107	13.00	6.00
10	RINSATE BLAN	L6M4H1AA	09/14/10	0127	13.00	6.00
11	PBLK2401	L6Q3F1AA	09/14/10	0147	13.00	6.00
12	LCS2401	L6Q3F1AC	09/14/10	0208	13.00*	6.00
13	LCD2401	L6Q3F1AD	09/14/10	0228	13.00	6.00
14		MH1660	09/14/10	0450	13.00	6.00
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

HP689014Y
MR-1

Report Date : 14-Sep-2010 08:50

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 15:16
End Cal Date : 13-SEP-2010 19:21
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m
Last Edit : 14-Sep-2010 08:50 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900454.D
Level 2: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900455.D
Level 3: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900456.D
Level 4: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900457.D
Level 5: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900458.D
Level 6: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900459.D
Level 7: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900453.D

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
1 Aroclor-1221(1)	+++++ / +++++	+++++	166446	+++++	+++++	+++++	166446	0.000	
(2)	+++++ / +++++	+++++	123880	+++++	+++++	+++++	123880	0.000	
(3)	+++++ / +++++	+++++	403102	+++++	+++++	+++++	403102	0.000	<-
3 Aroclor-1232(1)	+++++ / +++++	+++++	249408	+++++	+++++	+++++	249408	0.000	
(2)	+++++ / +++++	+++++	278550	+++++	+++++	+++++	278550	0.000	<-
(3)	+++++ / +++++	+++++	212144	+++++	+++++	+++++	212144	0.000	<-
(4)	+++++ / +++++	+++++	256330	+++++	+++++	+++++	256330	0.000	<-
(5)	+++++ / +++++	+++++	230038	+++++	+++++	+++++	230038	0.000	<-

Report Date : 14-Sep-2010 08:50

6C
HP6890144
MR 1

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 15:16
End Cal Date : 13-SEP-2010 19:21
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m
Last Edit : 14-Sep-2010 08:50 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD
4 Aroclor-1016(1)	558040 / 655400	555270	501526	519006	571231	589672	564306	8.891
(2)	688500 / 761600	686640	665976	677264	753903	813751	721091	7.703
(3)	377580 / 426700	381430	379614	396883	436480	471251	409991	8.735
(4)	573320 / 767000	577930	536230	514531	563025	595870	589701	14.035
(5)	613680 / 674100	586275	563802	563062	614297	660272	610784	7.188
5 Aroclor-1242(1)	+++++ / +++++	+++++	533358	+++++	+++++	+++++	533358	0.000
(2)	+++++ / +++++	+++++	409204	+++++	+++++	+++++	409204	0.000
(3)	+++++ / +++++	+++++	519930	+++++	+++++	+++++	519930	0.000
(4)	+++++ / +++++	+++++	415942	+++++	+++++	+++++	415942	0.000
(5)	+++++ / +++++	+++++	467780	+++++	+++++	+++++	467780	0.000
6 Aroclor-1248(1)	+++++ / +++++	+++++	741676	+++++	+++++	+++++	741676	0.000

Report Date : 14-Sep-2010 08:50

6C
HP689044
MR-1

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 15:16
End Cal Date : 13-SEP-2010 19:21
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m
Last Edit : 14-Sep-2010 08:50 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	___ RRF	% RSD	
(2)	+++++	+++++	793622	+++++	+++++	+++++	+++++	793622	0.000	<-
(3)	+++++	+++++	702356	+++++	+++++	+++++	+++++	702356	0.000	<-
(4)	+++++	+++++	314530	+++++	+++++	+++++	+++++	314530	0.000	<-
(5)	+++++	+++++	144922	+++++	+++++	+++++	+++++	144922	0.000	<-
7 Aroclor-1254(1)	+++++	+++++	950058	+++++	+++++	+++++	+++++	950058	0.000	
(2)	+++++	+++++	945672	+++++	+++++	+++++	+++++	945672	0.000	<-
(3)	+++++	+++++	961464	+++++	+++++	+++++	+++++	961464	0.000	<-
(4)	+++++	+++++	664836	+++++	+++++	+++++	+++++	664836	0.000	<-
(5)	+++++	+++++	714362	+++++	+++++	+++++	+++++	714362	0.000	<-
8 Aroclor-1260(1)	948000	878095	858646	824676	895766	940785	1008600	907795	6.852	
(2)	1217720	1158190	1160188	1126372	1199168	1257433	1151200	1181467	3.839	

Report Date : 14-Sep-2010 08:50

6C
HP6890144
M2-1

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 15:16
End Cal Date : 13-SEP-2010 19:21
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m
Last Edit : 14-Sep-2010 08:50 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(3)	640700 / 580700	644015	614986	625880	634053	672478	630402	4.488	
(4)	1241520 / 1309700	1299065	1180584	1220906	1343095	1455993	1292980	7.052	
(5)	525180 / 574400	477685	505648	481033	545701	573294	526134	7.657	
9 Aroclor-1262(1)	+++++ / +++++	+++++	751970	+++++	+++++	+++++	751970	0.000	
(2)	+++++ / +++++	+++++	390090	+++++	+++++	+++++	390090	0.000	<-
(3)	+++++ / +++++	+++++	284828	+++++	+++++	+++++	284828	0.000	<-
(4)	+++++ / +++++	+++++	1337704	+++++	+++++	+++++	1337704	0.000	<-
(5)	+++++ / +++++	+++++	652848	+++++	+++++	+++++	652848	0.000	<-
10 Aroclor-1268(1)	+++++ / +++++	+++++	1672826	+++++	+++++	+++++	1672826	0.000	<-
(2)	+++++ / +++++	+++++	1297858	+++++	+++++	+++++	1297858	0.000	<-
(3)	+++++ / +++++	+++++	1218974	+++++	+++++	+++++	1218974	0.000	<-

Report Date : 14-Sep-2010 08:50

6C
HP6890144
MR-1

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 15:16
End Cal Date : 13-SEP-2010 19:21
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m
Last Edit : 14-Sep-2010 08:50 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(4)	+++++ / +++++	+++++	2502230	+++++	+++++	+++++	2502230	0.000	<-
$ 2 Tetrachloro-m-xylene	19143200 / 21640000	20065100	22188680	21318280	22791030	23205990	21478897	6.777	
$ 11 Decachlorobiphenyl	5864400 / 6458000	5375300	6106360	5853120	6226270	6047775	5990175	5.719	

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900466.D
Report Date: 14-Sep-2010 08:59

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0900466.D
Analysis Type:
Lab Sample ID: ICV1660
Method: \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m

Injection Date: 13-SEP-2010 21:43
Init. Cal. Date(s): 13-SEP-2010 13-SEP-2010
Init. Cal. Times: 15:16 19:21
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	564306	524716	400.000	7.01575	15.00000	Averaged	
(2)	721091	657090	400.000	8.87552	15.00000	Averaged	
(3)	409991	378920	400.000	7.57849	15.00000	Averaged	
(4)	589701	545904	400.000	7.42694	15.00000	Averaged	
(5)	610784	571140	400.000	6.49066	15.00000	Averaged	
$ 2 Tetrachloro-m-xylene	21478897	1064200	400.000	95.04537	15.00000	Averaged	<- N/A
$ 11 Decachlorobiphenyl	5990175	130000	400.000	97.82978	15.00000	Averaged	<-
8 Aroclor-1260 (1)	907795	890096	400.000	1.94972	15.00000	Averaged	
(2)	1181467	1206684	400.000	-2.13436	15.00000	Averaged	
(3)	630402	569556	400.000	9.65189	15.00000	Averaged	
(4)	1292980	1097994	400.000	15.08038	15.00000	Averaged	<- OK
(5)	526134	495266	400.000	5.86702	15.00000	Averaged	

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900487.D
Report Date: 14-Sep-2010 09:22

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Y0900487.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\pitsvr06\d\chem\gc14.i\09130.b\PCBA.m

Injection Date: 14-SEP-2010 04:50
Init. Cal. Date(s): 13-SEP-2010 13-SEP-2010
Init. Cal. Times: 15:16 19:21
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	564306	515474	400.000	8.65351	15.00000	Averaged
(2)	721091	678635	400.000	5.88768	15.00000	Averaged
(3)	409991	394819	400.000	3.70060	15.00000	Averaged
(4)	589701	542926	400.000	7.93195	15.00000	Averaged
(5)	610784	590868	400.000	3.26071	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21478897	20730840	400.000	3.48275	15.00000	Averaged
$ 11 Decachlorobiphenyl	5990175	6057940	400.000	-1.13127	15.00000	Averaged
8 Aroclor-1260(1)	907795	856268	400.000	5.67611	15.00000	Averaged
(2)	1181467	1135975	400.000	3.85048	15.00000	Averaged
(3)	630402	627057	400.000	0.53056	15.00000	Averaged
(4)	1292980	1231430	400.000	4.76035	15.00000	Averaged
(5)	526134	516803	400.000	1.77358	15.00000	Averaged

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: METHODS

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/13/10 09/13/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			MEAN SURROGATE RT FROM INITIAL CALIBRATION			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		M2154	09/13/10	1456		
02		M1232	09/13/10	1516		
03		M1242	09/13/10	1537		
04		M1248	09/13/10	1557		
05		M1262	09/13/10	1617		
06		M1268	09/13/10	1638		
07		XL1660	09/13/10	1658		
08		L1660	09/13/10	1718		
09		ML1660	09/13/10	1739		
10		M1660	09/13/10	1759		
11		MH1660	09/13/10	1820		
12		H1660	09/13/10	1840		
13		XH1660	09/13/10	1900		
14		ICV2154	09/13/10	1921		
15		ICV1232	09/13/10	1941		
16		ICV1242	09/13/10	2001		
17		ICV1248	09/13/10	2022		
18		ICV1262	09/13/10	2042		
19		ICV1268	09/13/10	2102		
20		ICV1660	09/13/10	2123		
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: TESTAMERICA PITTSBURGH Contract:

Lab Code: TA Case No.: SAS No.: 40325 SDG No.: C0I020508

GC Column: MR-2 ID: 0.53 (mm) Init. Calib. Date(s): 09/13/10 09/13/10

Instrument ID: GC14

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 13.24 TCX: 6.05

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	PW-03 0-6"	L6G831AA	09/13/10	2203	13.24	6.05
02	PW-03 6-18"	L6G841AA	09/13/10	2224	13.24	6.05
03	PW-03 18-30"	L6G851AA	09/13/10	2244	13.24	6.05
04	PW-04 0-6"	L6HF51AC	09/13/10	2304	13.23	6.05
05	PW-04 6-18"	L6HF81AA	09/13/10	2325	13.24	6.05
06	PW-04 18-30"	L6HGD1AA	09/13/10	2345	13.24	6.05
07	PW-05 0-6"	L6HGE1AA	09/14/10	0006	13.24	6.05
08	PW-05 6-18"	L6HGF1AA	09/14/10	0026	13.23	6.05
09	PW-05 18-30"	L6HGH1AA	09/14/10	0046	13.24	6.05
10	RINSATE BLAN	L6M4H1AA	09/14/10	0107	13.24	6.05
11	PBLK2401	L6Q3F1AA	09/14/10	0127	13.24	6.05
12	LCS2401	L6Q3F1AC	09/14/10	0147	13.24	6.05
13	LCD2401	L6Q3F1AD	09/14/10	0208	13.24	6.05
14		MH1660	09/14/10	0430	13.23	6.05
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Report Date : 14-Sep-2010 10:31

HP890147
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Calibration File Names:
Level 1: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900454.D
Level 2: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900455.D
Level 3: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900456.D
Level 4: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900457.D
Level 5: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900458.D
Level 6: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900459.D
Level 7: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900453.D

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
1 Aroclor-1221(1)	+++++	+++++	220430	+++++	+++++	+++++	+++++	220430	0.000	
(2)	+++++	+++++	142682	+++++	+++++	+++++	+++++	142682	0.000	<-
(3)	+++++	+++++	476374	+++++	+++++	+++++	+++++	476374	0.000	<-
3 Aroclor-1232(1)	+++++	+++++	255552	+++++	+++++	+++++	+++++	255552	0.000	<-
(2)	+++++	+++++	299926	+++++	+++++	+++++	+++++	299926	0.000	<-
(3)	+++++	+++++	219214	+++++	+++++	+++++	+++++	219214	0.000	<-
(4)	+++++	+++++	310570	+++++	+++++	+++++	+++++	310570	0.000	<-
(5)	+++++	+++++	201332	+++++	+++++	+++++	+++++	201332	0.000	<-

Report Date : 14-Sep-2010 10:31

6L
HP6890147
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
4 Aroclor-1016(1)	671380 / 939800	733325	662490	697314	705442	704470	730603	13.026	
(2)	912980 / 1277900	794335	783388	784073	781886	769368	871990	21.286	<-
(3)	620220 / 712300	635910	630354	728159	724841	736821	684086	7.658	<-
(4)	803380 / 1227300	775550	731386	779575	771390	760343	835561	20.836	<-
(5)	589180 / 806600	541895	528210	529317	558402	535164	584110	17.190	<-
5 Aroclor-1242(1)	+++++ / +++++	+++++	241668	+++++	+++++	+++++	241668	0.000	
(2)	+++++ / +++++	+++++	493262	+++++	+++++	+++++	493262	0.000	
(3)	+++++ / +++++	+++++	579510	+++++	+++++	+++++	579510	0.000	
(4)	+++++ / +++++	+++++	386272	+++++	+++++	+++++	386272	0.000	
(5)	+++++ / +++++	+++++	280754	+++++	+++++	+++++	280754	0.000	
6 Aroclor-1248(1)	+++++ / +++++	+++++	871838	+++++	+++++	+++++	871838	0.000	

Avg 16.0% RSD

Report Date : 14-Sep-2010 10:31

HP689014Z
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	363258	+++++	+++++	+++++	363258	0.000	<-
(3)	+++++ / +++++	+++++	424154	+++++	+++++	+++++	424154	0.000	<-
(4)	+++++ / +++++	+++++	373486	+++++	+++++	+++++	373486	0.000	<-
(5)	+++++ / +++++	+++++	532860	+++++	+++++	+++++	532860	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	1034226	+++++	+++++	+++++	1034226	0.000	
(2)	+++++ / +++++	+++++	1631804	+++++	+++++	+++++	1631804	0.000	
(3)	+++++ / +++++	+++++	971890	+++++	+++++	+++++	971890	0.000	
(4)	+++++ / +++++	+++++	1234692	+++++	+++++	+++++	1234692	0.000	
(5)	+++++ / +++++	+++++	805378	+++++	+++++	+++++	805378	0.000	
8 Aroclor-1260(1)	1734860 / 2037200	1726240	1565694	1577573	1568475	1546408	1679493	10.500	
(2)	2294320 / 2563800	2260750	2068896	2063086	2057373	2092825	2200150	8.558	

Report Date : 14-Sep-2010 10:31

HP6890147
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(3)	1930800 / 2244300	1916195	1753108	1817863	1794160	1841906	1899762	8.667	
(4)	2166920 / 2480400	2081180	1876288	1839084	1802399	1769922	2002313	12.869	
(5)	980200 / 1100600	943145	864620	868243	835293	851732	920548	10.340	
9 Aroclor-1262(1)	+++++ / +++++	+++++	2451212	+++++	+++++	+++++	2451212	0.000	
(2)	+++++ / +++++	+++++	2161058	+++++	+++++	+++++	2161058	0.000	<-
(3)	+++++ / +++++	+++++	4162070	+++++	+++++	+++++	4162070	0.000	<-
(4)	+++++ / +++++	+++++	1769208	+++++	+++++	+++++	1769208	0.000	<-
(5)	+++++ / +++++	+++++	2748096	+++++	+++++	+++++	2748096	0.000	<-
10 Aroclor-1268(1)	+++++ / +++++	+++++	5197936	+++++	+++++	+++++	5197936	0.000	
(2)	+++++ / +++++	+++++	4278186	+++++	+++++	+++++	4278186	0.000	<-
(3)	+++++ / +++++	+++++	3794872	+++++	+++++	+++++	3794872	0.000	<-

Report Date : 14-Sep-2010 10:31

HP689947
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(4)	+++++	+++++	1066664	+++++	+++++	+++++	+++++	1066664	0.000	<-
$ 2 Tetrachloro-m-xylene	18531600	20208400	20675000	21682700	22858520	+++++	24844000	21466703	10.252	
$ 11 Decachlorobiphenyl	14462400	13130000	14689520	13988840	13891770	+++++	14116000	14046422	3.845	

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900466.D
Report Date: 14-Sep-2010 10:34

MR-2

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900466.D
Analysis Type:
Lab Sample ID: ICV1660
Method: \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m

Injection Date: 13-SEP-2010 21:23
Init. Cal. Date(s): 13-SEP-2010 13-SEP-2010
Init. Cal. Times: 14:56 19:00
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Aroclor-1016 (1)	730603	650582	0.010	10.95273	15.00000	Averaged	
(2)	871990	792648	0.010	9.09895	15.00000	Averaged	
(3)	684086	623932	0.010	8.79339	15.00000	Averaged	
(4)	835561	748996	0.010	10.36005	15.00000	Averaged	
(5)	584110	492782	0.010	15.63538	15.00000	Averaged	<-
$ 2 Tetrachloro-m-xylene	21466703	++++	0.000	++++	15.00000	Averaged	<-
$ 11 Decachlorobiphenyl	14046422	314880	0.010	97.75829	15.00000	Averaged	<-
8 Aroclor-1260 (1)	1679493	1648406	0.010	1.85096	15.00000	Averaged	
(2)	2200150	2158454	0.010	1.89514	15.00000	Averaged	
(3)	1899762	1913692	0.010	-0.73326	15.00000	Averaged	
(4)	2002313	1741800	0.010	13.01061	15.00000	Averaged	
(5)	920548	856288	0.010	6.98057	15.00000	Averaged	

TC H#607014C
MR-2

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900487.D
Report Date: 14-Sep-2010 10:34

TestAmerica Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc14.i
Lab File ID: Z0900487.D
Analysis Type:
Lab Sample ID: MH1660
Method: \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m

Injection Date: 14-SEP-2010 04:30
Init. Cal. Date(s): 13-SEP-2010 13-SEP-2010
Init. Cal. Times: 14:56 19:00
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Aroclor-1016(1)	730603	673343	0.010	7.83736	15.00000	Averaged
(2)	871990	796477	0.010	8.65984	15.00000	Averaged
(3)	684086	725921	0.010	-6.11540	15.00000	Averaged
(4)	835561	777523	0.010	6.94594	15.00000	Averaged
(5)	584110	554698	0.010	5.03531	15.00000	Averaged
$ 2 Tetrachloro-m-xylene	21466703	21507400	0.000	-0.18958	15.00000	Averaged
$ 11 Decachlorobiphenyl	14046422	13772100	0.010	1.95296	15.00000	Averaged
8 Aroclor-1260(1)	1679493	1557180	0.010	7.28272	15.00000	Averaged
(2)	2200150	2001181	0.010	9.04342	15.00000	Averaged
(3)	1899762	1766117	0.010	7.03482	15.00000	Averaged
(4)	2002313	1800926	0.010	10.05773	15.00000	Averaged
(5)	920548	797621	0.010	13.35363	15.00000	Averaged

SW846 8082 METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L6Q3F1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: Y0900478.

Lot Number: C0I020508

Matrix: WATER

Extraction Method:

Date Extracted: 09/09/10

Date Analyzed(1): 09/14/10

Date Analyzed(2): N/A

Time Analyzed(1): 01:47

Time Analyzed(2): N/A

Instrument ID(1): U/V

Instrument ID(2): N/A

GC Column(1): MR1/MR2 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	PW-03 0-6"	L6G831AA	09/13/10	N/A
02	PW-03 6-18"	L6G841AA	09/13/10	N/A
03	PW-03 18-30"	L6G851AA	09/13/10	N/A
04	PW-04 0-6"	L6HF51AC	09/13/10	N/A
05	PW-04 6-18"	L6HF81AA	09/13/10	N/A
06	PW-04 18-30"	L6HGD1AA	09/14/10	N/A
07	PW-05 0-6"	L6HGE1AA	09/14/10	N/A
08	PW-05 6-18"	L6HGF1AA	09/14/10	N/A
09	PW-05 18-30"	L6HGH1AA	09/14/10	N/A
10	Rinsate Blank	L6M4H1AA	09/14/10	N/A
11	CHECK SAMPLE	L6Q3F1AC C	09/14/10	N/A
12	DUPLICATE CHECK	L6Q3F1AD L	09/14/10	N/A
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: C0I020508	**Work Order #...:** L6Q3F1AA	**Matrix.....:** WATER
MB Lot-Sample #: C0I090000-401		
	Prep Date.....: 09/09/10	**Analysis Time..:** 01:47
Analysis Date..: 09/14/10	**Prep Batch #...:** 0252401	**Final Wgt/Vol..:** 8 mL
Dilution Factor: 1	**Initial Wgt/Vol:** 200 mL	**Instrument ID..:** U/V
	Analyst ID.....: 001797	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	0.40	ug/L	SW846 8082
Aroclor 1221	ND	0.40	ug/L	SW846 8082
Aroclor 1232	ND	0.40	ug/L	SW846 8082
Aroclor 1242	ND	0.40	ug/L	SW846 8082
Aroclor 1248	ND	0.40	ug/L	SW846 8082
Aroclor 1254	ND	0.40	ug/L	SW846 8082
Aroclor 1260	ND	0.40	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	105	(35 - 140)
Decachlorobiphenyl	97	(35 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8082 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I020508

Extraction: XXI09QH01

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	PW-03 0-6"	109	100	00
02	PW-03 6-18"	96	90	00
03	PW-03 18-30"	92	87	00
04	PW-04 0-6"	100	97	00
05	PW-04 6-18"	102	97	00
06	PW-04 18-30"	100	95	00
07	PW-05 0-6"	101	93	00
08	PW-05 6-18"	98	96	00
09	PW-05 18-30"	94	89	00
10	Rinsate Blank	102	98	00
11	METHOD BLK. L6Q3F1AA	105	97	00
12	LCS L6Q3F1AC	104	89	00
13	LCSD L6Q3F1AD	102	92	00

SURROGATES		QC LIMITS
SRG01	= Tetrachloro-m-xylene	(35-140)
SRG02	= Decachlorobiphenyl	(35-140)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8082 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I090000 WO #: L6Q3F1AC
BATCH: 0252401

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	40.0	33.1	83	60- 130	
Aroclor 1260	40.0	35.5	89	60- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

SW846 8082 CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I090000 WO #: L6Q3F1AD
BATCH: 0252401

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
Aroclor 1016	40.0	33.5	84	60- 130	
Aroclor 1260	40.0	34.4	86	60- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Sample Number	Results from Column 1	Results from Column 2	RPD
	Aroclor 1260	Aroclor 1260	
PW-03 0-6"	0.4941	0.42821	14.29
PW-03 6-18"	0.12348	0.13193	6.62
PW-04 0-6"	0.18449	0.17457	5.53
PW-04 6-18"	0.098384	0.10408	5.63
PW-05 0-6"	0.59631	0.60589	1.59
PW-05 6-18"	0.50676	0.55051	8.28

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900468.D
Report Date: 14-Sep-2010 09:20

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242						CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).								
6 Aroclor-1248						CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).								
7 Aroclor-1254						CAS #: 11097-69-1		
Operator disabled compound identification.								
8 Aroclor-1260						CAS #: 11096-82-5		
	9.561	9.561	0.000	22118	0.02436	0.97458	0.00- 0.00	0.00(a)
	9.965	9.966	-0.001	13654	0.01156	0.46227	115.86- 115.86	0.00
	10.725	10.725	0.000	8761	0.01390	0.55590	136.91- 136.91	0.00
	11.153	11.152	0.001	6926	0.00536	0.21426	140.00- 140.00	0.00
	11.488	11.487	0.001	3466	0.00659	0.26351	128.33- 128.33	0.00
Average of Peak Concentrations = 0.49410								
9 Aroclor-1262						CAS #: 37324-23-5		
Peaks not detected for Quant. or Qual. signal(s).								
10 Aroclor-1268						CAS #: 11100-14-4		
Operator disabled compound identification.								
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
	13.003	13.005	-0.002	119527	0.01995	0.79815		

PW-03 0-6"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900468.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.735	9.736	-0.001	42457	0.02528	1.0112	0.00- 0.00	0.00(a)
10.029	10.031	-0.002	31115	0.01414	0.56569	115.86- 115.86	0.00
10.243	10.243	0.000	4170	0.00220	0.087800	136.91- 136.91	0.00
10.552	10.553	-0.001	12403	0.00619	0.24777	140.00- 140.00	0.00
11.028	11.032	-0.004	5261	0.00572	0.22860	128.33- 128.33	0.00
Average of Peak Concentrations =					0.42821		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.236	13.238	-0.002	284403	0.02025	0.80989		

PW-03 0-6"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900469.D
Report Date: 14-Sep-2010 09:20

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Operator disabled compound identification.							
8 Aroclor-1260					CAS #: 11096-82-5		
9.559	9.561	-0.002	6057	0.00667	0.26689	0.00- 0.00	0.00(a)
9.963	9.966	-0.003	3912	0.00331	0.13244	115.86- 115.86	0.00
10.725	10.725	0.000	790	0.00125	0.050127	136.91- 136.91	0.00
11.151	11.152	-0.001	2833	0.00219	0.087642	140.00- 140.00	0.00
11.483	11.487	-0.004	1056	0.00201	0.080284	128.33- 128.33	0.00
Average of Peak Concentrations =					0.12348		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Peaks not detected for Quant. or Qual. signal(s).							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.002	13.005	-0.003	107766	0.01799	0.71962		(R)

PW-03 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900469.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.738	9.736	0.002	11690	0.00696	0.27842	0.00- 0.00	0.00(a)
10.034	10.031	0.003	9526	0.00433	0.17319	115.86- 115.86	0.00
10.245	10.243	0.002	1774	9e-004	0.037352	136.91- 136.91	0.00
10.556	10.553	0.003	4286	0.00214	0.085621	140.00- 140.00	0.00
11.031	11.032	-0.001	1958	0.00213	0.085080	128.33- 128.33	0.00
Average of Peak Concentrations = 0.13193							
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.236	13.238	-0.002	263903	0.01879	0.75152		(R)

PW-03 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900471.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		

Operator disabled compound identification.

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6 Aroclor-1248 CAS #: 12672-29-6

Peaks not detected for Quant. or Qual. signal(s).

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7 Aroclor-1254 CAS #: 11097-69-1

Peaks not detected for Quant. or Qual. signal(s).

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8 Aroclor-1260 CAS #: 11096-82-5

9.734	9.736	-0.002	16820	0.01001	0.40060	0.00- 0.00	0.00(a)
10.033	10.031	0.002	14163	0.00644	0.25749	115.86- 115.86	0.00
10.241	10.243	-0.002	1791	9e-004	0.037710	136.91- 136.91	0.00
10.554	10.553	0.001	5363	0.00268	0.10714	140.00- 140.00	0.00
11.031	11.032	-0.001	2751	0.00299	0.11954	128.33- 128.33	0.00

Average of Peak Concentrations = 0.18449

PW-04 0-6"

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9 Aroclor-1262 CAS #: 37324-23-5

Operator disabled compound identification.

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10 Aroclor-1268 CAS #: 11100-14-4

Operator disabled compound identification.

$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.234	13.238	-0.004	274015	0.01951	0.78031		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900471.D
Report Date: 14-Sep-2010 09:20

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
	5 Aroclor-1242				CAS #: 53469-21-9		
Operator disabled compound identification.							
	6 Aroclor-1248				CAS #: 12672-29-6		
Operator disabled compound identification.							
	7 Aroclor-1254				CAS #: 11097-69-1		
Operator disabled compound identification.							
	8 Aroclor-1260				CAS #: 11096-82-5		
9.559	9.561	-0.002	8644	0.00952	0.38088	0.00- 0.00	0.00(a)
9.964	9.966	-0.002	6320	0.00535	0.21397	115.86- 115.86	0.00
10.726	10.725	0.001	1065	0.00169	0.067576	136.91- 136.91	0.00
11.152	11.152	0.000	3322	0.00257	0.10277	140.00- 140.00	0.00
11.488	11.487	0.001	1416	0.00269	0.10765	128.33- 128.33	0.00
	Average of Peak Concentrations =				0.17457		
	9 Aroclor-1262				CAS #: 37324-23-5		
Peaks not detected for Quant. or Qual. signal(s).							
	10 Aroclor-1268				CAS #: 11100-14-4		
Operator disabled compound identification.							
$	11 Decachlorobiphenyl				CAS #: 2051-24-3		
13.002	13.005	-0.003	116566	0.01946	0.77838		

PW-04 0-6"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
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Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900472.D
Report Date: 14-Sep-2010 09:20

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Operator disabled compound identification.							
8 Aroclor-1260					CAS #: 11096-82-5		
9.556	9.561	-0.005	4764	0.00525	0.20992	0.00- 0.00	0.00(a)
9.963	9.966	-0.003	3416	0.00289	0.11565	115.86- 115.86	0.00
10.723	10.725	-0.002	613	1e-003	0.038896	136.91- 136.91	0.00
11.149	11.152	-0.003	1923	0.00149	0.059490	140.00- 140.00	0.00
11.485	11.487	-0.002	894	0.00170	0.067967	128.33- 128.33	0.00
Average of Peak Concentrations					0.098384		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Peaks not detected for Quant. or Qual. signal(s).							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.001	13.005	-0.004	115858	0.01934	0.77365		

PW-04 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900472.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.735	9.736	-0.001	9102	0.00542	0.21678	0.00- 0.00	0.00(a)
10.032	10.031	0.001	7987	0.00363	0.14521	115.86- 115.86	0.00
10.241	10.243	-0.002	1009	5e-004	0.021245	136.91- 136.91	0.00
10.554	10.553	0.001	2731	0.00136	0.054557	140.00- 140.00	0.00
11.031	11.032	-0.001	1901	0.00207	0.082603	128.33- 128.33	0.00
Average of Peak Concentrations					0.10408		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.235	13.238	-0.003	276986	0.01972	0.78877		

PW-04 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900474.D
Report Date: 14-Sep-2010 09:20

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	
5 Aroclor-1242					CAS #: 53469-21-9			
Operator disabled compound identification.								
6 Aroclor-1248					CAS #: 12672-29-6			
Operator disabled compound identification.								
7 Aroclor-1254					CAS #: 11097-69-1			
Operator disabled compound identification.								
8 Aroclor-1260					CAS #: 11096-82-5			
9.557	9.561	-0.004	22013	0.02425	0.96995	0.00- 0.00	0.00	(a)
9.962	9.966	-0.004	20815	0.01762	0.70472	115.86- 115.86	0.00	
10.724	10.725	-0.001	5497	0.00872	0.34879	136.91- 136.91	0.00	
11.149	11.152	-0.003	13708	0.01060	0.42407	140.00- 140.00	0.00	
11.486	11.487	-0.001	7024	0.01335	0.53401	128.33- 128.33	0.00	
Average of Peak Concentrations =					0.59631			
9 Aroclor-1262					CAS #: 37324-23-5			
Operator disabled compound identification.								
10 Aroclor-1268					CAS #: 11100-14-4			
Operator disabled compound identification.								
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
13.000	13.005	-0.005	111420	0.01860	0.74402			(R)

PW-05 0-6"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900474.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		

Operator disabled compound identification.

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6 Aroclor-1248 CAS #: 12672-29-6

Peaks not detected for Quant. or Qual. signal(s).

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7 Aroclor-1254 CAS #: 11097-69-1

Peaks not detected for Quant. or Qual. signal(s).

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8 Aroclor-1260 CAS #: 11096-82-5

9.736	9.736	0.000	44093	0.02625	1.0502	0.00- 0.00	0.00(a)	
10.031	10.031	0.000	43873	0.01994	0.79764	115.86- 115.86	0.00	
10.241	10.243	-0.002	12923	0.00680	0.27210	136.91- 136.91	0.00	
10.552	10.553	-0.001	22832	0.01140	0.45611	140.00- 140.00	0.00	
11.030	11.032	-0.002	10436	0.01134	0.45347	128.33- 128.33	0.00	

Average of Peak Concentrations = 0.60589

PW-05 0-6"

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9 Aroclor-1262 CAS #: 37324-23-5

Operator disabled compound identification.

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10 Aroclor-1268 CAS #: 11100-14-4

Operator disabled compound identification.

$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
13.236	13.238	-0.002	280569	0.01997	0.79898			

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Y0900475.D
Report Date: 14-Sep-2010 09:20

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Operator disabled compound identification.							
6 Aroclor-1248					CAS #: 12672-29-6		
Operator disabled compound identification.							
7 Aroclor-1254					CAS #: 11097-69-1		
Operator disabled compound identification.							
8 Aroclor-1260					CAS #: 11096-82-5		
9.558	9.561	-0.003	15923	0.01754	0.70161	0.00- 0.00	0.00(a)
9.964	9.966	-0.002	21173	0.01792	0.71684	115.86- 115.86	0.00
10.724	10.725	-0.001	4397	0.00697	0.27900	136.91- 136.91	0.00
11.150	11.152	-0.002	13050	0.01009	0.40372	140.00- 140.00	0.00
11.482	11.487	-0.005	5691	0.01082	0.43266	128.33- 128.33	0.00
Average of Peak Concentrations =					0.50676		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
12.999	13.005	-0.006	114868	0.01918	0.76704		(R)

PW-05 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900475.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.730	9.736	-0.006	30737	0.01830	0.73205	0.00- 0.00	0.00(a)
10.025	10.031	-0.006	43238	0.01965	0.78609	115.86- 115.86	0.00
10.237	10.243	-0.006	13135	0.00691	0.27656	136.91- 136.91	0.00
10.549	10.553	-0.004	24549	0.01226	0.49041	140.00- 140.00	0.00
11.028	11.032	-0.004	10757	0.01169	0.46742	128.33- 128.33	0.00
Average of Peak Concentrations =					0.55051		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.233	13.238	-0.005	273774	0.01949	0.77963		

PW-05 6-18"

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT Middle River Center	JOB NUMBER COI020508
SUBJECT Sample Calculation	
BASED ON	DRAWING NUMBER
BY Ann Cognetti / CHECKED BY	APPROVED BY 11-2-10 / DATE 10-26-10

I. VOC; Sample PW-01 Composite; Acetone

$$\frac{229954}{1190380} * \frac{1}{10\ (\text{ng conversion})} * \frac{1}{2.5\ \text{mL}} * \frac{500\ 50\ \text{ng}}{0.08417} = 45.9\ \text{ug/L acetone}$$

2 (dilution factor)

II. PAH; Sample PW-05 6-18"; Acenaphthene

$$\frac{9570}{191392} * 1 * 1 * \frac{500\ \text{ul}}{200\ \text{mL} * 2\ \text{ul}} * \frac{8\ \text{ng}}{1.14694} = 0.44\ \text{ug/L acenaphthene}$$

III. Aroclor 1260; Sample PW-05 6-18"

$$\frac{30737\ \text{AREA}}{1679493\ \text{AREA/ng}} * 1 * \frac{8000\ \text{ul}}{1\ \text{ul}\ 200\ \text{mL}} = 0.73$$

$$\frac{43238}{2200150} * 1 * \frac{8000}{200} = 0.79$$

$$\frac{13135}{1899762} * 1 * \frac{8000}{200} = 0.28$$

$$\frac{24549}{2002313} * 1 * \frac{8000}{200} = 0.49$$

$$\frac{10757}{920548} * 1 * \frac{8000}{200} = 0.47$$

$$\frac{0.73 + 0.79 + 0.28 + 0.49 + 0.47}{5}$$

$= 0.55$ ug/L Aroclor 1260

Sample Calculation
VOC

Tetra Tech NUS, Inc

Client Sample ID: PW-01 Composite

GC/MS Volatiles

Lot-Sample #...:	C0I020508-023	**Work Order #...:**	L6NL71AA	**Matrix.....:**	WATER
Date Sampled...:	09/08/10	**Date Received..:**	09/08/10	**MS Run #.....:**	0257050
Prep Date.....:	09/13/10	**Analysis Date..:**	09/13/10		
Prep Batch #...:	0257090	**Analysis Time..:**	20:03		
Dilution Factor:	2	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**46**	**10**	**ug/L**
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
2-Butanone	**7.1 J**	**10**	**ug/L**
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromoethane	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
tert-Butyl alcohol	ND	40	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L

(Continued on next page)

Sample Calculation
VOC

Data File: \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM9011.D
Report Date: 14-Sep-2010 10:05

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\UXM9011.D
Lab Smp Id: L6NL71AA Client Smp ID: PW-01 Composite
Inj Date : 13-SEP-2010 20:03
Operator : 1644 Inst ID: a3ux16.i
Smp Info : L6NL71AA,2.5ML/5ML
Misc Info : M00913A,8260LLUX16,,1644
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux16.i\M00913A.b\8260LLUX16.m
Meth Date : 13-Sep-2010 13:15 a3ux16.i Quant Type: ISTD
Cal Date : 03-AUG-2010 19:59 Cal File: UXM7972.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	2.500	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
*	1 Fluorobenzene	96	5.715	5.715	(1.000)	1190380	50.0000	
*	2 Chlorobenzene-d5	117	8.407	8.407	(1.000)	688788	50.0000	
*	3 1,4-Dichlorobenzene-d4	152	10.648	10.648	(1.000)	399971	50.0000	
$	4 Dibromofluoromethane	113	5.134	5.134	(0.898)	286771	52.9719	21.189
$	5 1,2-Dichloroethane-d4	65	5.431	5.431	(0.950)	314233	48.5824	19.433
$	6 Toluene-d8	98	7.091	7.091	(0.843)	996788	53.2379	21.295
$	7 Bromofluorobenzene	95	9.522	9.522	(1.133)	314849	49.0882	19.635
	8 Dichlorodifluoromethane	85	Compound Not Detected.					
	9 Chloromethane	50	Compound Not Detected.					
	10 Vinyl Chloride	62	Compound Not Detected.					
	11 Bromomethane	94	Compound Not Detected.					
	12 Chloroethane	64	Compound Not Detected.					
	13 Trichlorofluoromethane	101	Compound Not Detected.					
	14 Dichlorofluoromethane	67	Compound Not Detected.					
	15 Acrolein	56	Compound Not Detected.					
	16 Acetone	43	3.189	3.189	(0.558)	229954	114.753	45.901
	17 1,1-Dichloroethene	96	Compound Not Detected.					
	18 Freon-113	151	Compound Not Detected.					
	19 Iodomethane	142	Compound Not Detected.					
	20 Carbon Disulfide	76	Compound Not Detected.					
	21 Methylene Chloride	84	3.593	3.593	(0.629)	144637	16.8615	6.745

Sample Calculation
VOC

Report Date : 04-Aug-2010 08:58

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2010 16:44
End Cal Date : 03-AUG-2010 21:05
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\8260LLUX16.m
Last Edit : 04-Aug-2010 08:59 quayler
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7975.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7974.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7973.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7972.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7971.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux16.i\M00803A-IC.b\UXM7970.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD
	8 Dichlorodifluoromethane	0.16587	0.14951	0.18671	0.18976	0.20707	0.22360	0.18709	14.346
	9 Chloromethane	0.34811	0.31503	0.31891	0.33855	0.29137	0.30593	0.31965	6.527
	10 Vinyl Chloride	0.29593	0.28340	0.30604	0.30367	0.30549	0.30647	0.30017	3.032
	11 Bromomethane	0.14146	0.12515	0.13145	0.10936	0.09612	0.07456	0.11302	21.940
	12 Chloroethane	0.22302	0.17130	0.16720	0.15527	0.14647	0.13562	0.16648	18.414
	13 Trichlorofluoromethane	0.19219	0.17155	0.20525	0.20827	0.21574	0.21701	0.20167	8.551
	14 Dichlorofluoromethane	0.39892	0.38754	0.32483	0.33783	0.34290	0.32341	0.35257	9.236
	15 Acrolein	0.03507	0.03454	0.03536	0.03583	0.03667	0.03512	0.03543	2.083
	16 Acetone	0.10811	0.08454	0.08079	0.08208	0.07605	0.07345	0.08417	14.744
	17 1,1-Dichloroethene	0.23779	0.25990	0.25465	0.25077	0.25483	0.25945	0.25290	3.219
	18 Freon-113	0.12483	0.16331	0.15236	0.16880	0.17894	0.18220	0.16174	13.018
	19 Iodomethane	0.40270	0.42098	0.41968	0.42282	0.41425	0.41721	0.41628	1.752
	20 Carbon Disulfide	0.79238	0.83594	0.82953	0.84286	0.84839	0.86014	0.83487	2.794
	21 Methylene Chloride	0.53966	0.41181	0.33694	0.31538	0.29383	0.28849	0.36435	26.571
	22 Acetonitrile	0.02931	0.02704	0.02813	0.02738	0.02792	0.02598	0.02763	4.066
	23 Acrylonitrile	0.07827	0.08238	0.08669	0.08490	0.08461	0.08030	0.08286	3.807
	24 Methyl tert-butyl ether	0.40107	0.38966	0.38998	0.38913	0.37094	0.35453	0.38255	4.393
	25 trans-1,2-Dichloroethene	0.27676	0.29679	0.28761	0.28399	0.28520	0.28482	0.28586	2.269
	26 Hexane	0.03226	0.04464	0.03779	0.04373	0.04730	0.05196	0.04295	16.285
	27 Vinyl acetate	0.35171	0.36614	0.37795	0.38176	0.40080	0.40079	0.37986	5.083
	28 1,1-Dichloroethane	0.45332	0.47819	0.46358	0.45834	0.46474	0.47002	0.46470	1.880
	29 tert-Butyl Alcohol	0.01331	0.01333	0.01319	0.01314	0.01310	0.01194	0.01300	4.069
	30 2-Butanone	0.11668	0.10961	0.10749	0.10455	0.10560	0.09823	0.10703	5.692
M	31 1,2-Dichloroethene (total)	0.28426	0.29959	0.28958	0.28745	0.28781	0.28922	0.28965	1.802
	32 cis-1,2-dichloroethene	0.29176	0.30239	0.29155	0.29090	0.29042	0.29362	0.29344	1.539
	33 2,2-Dichloropropane	0.29731	0.29652	0.29457	0.29883	0.29998	0.29423	0.29691	0.769
	34 Bromochloromethane	0.13250	0.13515	0.13292	0.13539	0.13462	0.13547	0.13434	0.972
	35 Chloroform	0.44401	0.45246	0.43715	0.43755	0.43622	0.43833	0.44095	1.423

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

GC/MS Semivolatiles

Lot-Sample #...:	C0I020508-014	**Work Order #...:**	L6HGF1AC	**Matrix.....:**	WATER
Date Sampled...:	09/09/10	**Date Received..:**	09/09/10	**MS Run #.....:**	
Prep Date.....:	09/13/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0256315	**Analysis Time..:**	19:58		
Dilution Factor:	2.5	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	0.5 mL
Analyst ID.....:	045183	**Instrument ID..:**	71		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.36
Naphthalene	ND	0.50	ug/L	0.035
Acenaphthylene	ND	0.50	ug/L	0.038
Acenaphthene	**0.44 J**	**0.50**	**ug/L**	**0.036**
Fluorene	**0.24 J**	**0.50**	**ug/L**	**0.054**
Phenanthrene	**0.80**	**0.50**	**ug/L**	**0.11**
Anthracene	**0.17 J**	**0.50**	**ug/L**	**0.038**
Fluoranthene	**2.1**	**0.50**	**ug/L**	**0.040**
Pyrene	**1.4**	**0.50**	**ug/L**	**0.039**
Benzo(a)anthracene	**0.48 J**	**0.50**	**ug/L**	**0.037**
Chrysene	**0.39 J**	**0.50**	**ug/L**	**0.035**
Benzo(b)fluoranthene	**2.6**	**0.50**	**ug/L**	**0.039**
Benzo(k)fluoranthene	**0.98**	**0.50**	**ug/L**	**0.14**
Benzo(a)pyrene	**0.23 J**	**0.50**	**ug/L**	**0.034**
Indeno(1,2,3-cd)pyrene	**0.98**	**0.50**	**ug/L**	**0.050**
Dibenzo(a,h)anthracene	ND	0.50	ug/L	0.039
Benzo(ghi)perylene	**0.82**	**0.50**	**ug/L**	**0.038**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	100	(23 - 112)
Terphenyl-d14	78	(10 - 132)
2-Fluorobiphenyl	105	(19 - 107)
2-Fluorophenol	95	(10 - 111)
Phenol-d5	89	(15 - 112)
2,4,6-Tribromophenol	95	(16 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

Sample Calculation

Test America Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\pitsvr06\D\chem\71.i\s091410.b\S0914017.D
Lab Smp Id: l6hgf1ac Client Smp ID: PW-05 6-18"
Inj Date : 14-SEP-2010 19:58
Operator : 045183sab Inst ID: 71.i
Smp Info : c0i020508-014 9/13/10 h2o42 (0256315)
Misc Info : l6hgf1ac,s091410.b,l1b.m,4-42pahpd.sub
Comment :
Method : \\pitsvr06\D\chem\71.i\s091410.b\l1b.m
Meth Date : 20-Sep-2010 11:42 campisin Quant Type: ISTD
Cal Date : 27-AUG-2010 11:55 Cal File: S0827AP8.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-42pahpd.sub
Target Version: 4.14
Processing Host: PITPC-732

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)*1*gpc * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	500.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)
gpc	1.000	GPC correction Factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 1	1,4-Dichlorobenzene-d4	152	3.972	3.966	(1.000)	141470	8.00000	
* 2	Naphthalene-d8	136	4.923	4.917	(1.000)	467271	8.00000	
* 3	Acenaphthene-d10	164	6.221	6.226	(1.000)	191392	8.00000	
* 4	Phenanthrene-d10	188	7.321	7.326	(1.000)	264068	8.00000	
* 5	Chrysene-d12	240	9.309	9.314	(1.000)	198910	8.00000	
* 6	Perylene-d12	264	10.372	10.393	(1.000)	211550	8.00000	
198	1,4-Dioxane	88	Compound Not Detected.					
51	Naphthalene	128	Compound Not Detected.					
62	2-Methylnaphthalene	142	Compound Not Detected.					
63	1-Methylnaphthalene	142	Compound Not Detected.					
79	Acenaphthylene	152	Compound Not Detected.					
82	Acenaphthene	153	6.242	6.247	(1.003)	9570	0.34877	0.43596
86	Dibenzofuran	168	Compound Not Detected.					
94	Fluorene	166	6.627	6.632	(1.065)	6211	0.19372	0.24215
111	Pentachlorophenol	265	Compound Not Detected.					
115	Phenanthrene	178	7.343	7.342	(1.003)	27035	0.63688	0.79610
116	Anthracene	178	7.375	7.385	(1.007)	5835	0.13981	0.17476
119	Carbazole	167	Compound Not Detected.					
123	Fluoranthene	202	8.230	8.235	(1.124)	42671	1.68483	2.1060

Sample Calculation

(2001 - 2272)

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 26-AUG-2010 06:32
End Cal Date : 26-AUG-2010 08:50
Quant Method : ISTD
Origin : Included
Target Version : 4.14
Integrator : HP RTE
Method file : \\PITSVR06\D\chem\71.i\s0826108270C.b\llb.m
Last Edit : 26-Aug-2010 12:24 bachas

Compound	0.4000000 Level 1	2.0000 Level 2	4.0000 Level 3	10.0000 Level 4	20.0000 Level 5	40.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	60.0000 Level 7	80.0000 Level 8										
78 2,6-Dinitrotoluene	+++++	0.23754	0.24866	0.26922	0.28087	0.29079						
	0.29462	0.28827					AVRG		0.27285		8.11604	
79 Acenaphthylene	1.41511	1.63534	1.67611	1.76369	1.89303	2.02711						
	2.07955	2.14389					AVRG		1.82923		13.73285	
80 1,2-Dinitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-
81 3-Nitroaniline	+++++	0.25595	0.27507	0.29742	0.31646	0.31535						
	0.31457	0.31553					AVRG		0.29862		8.10602	
82 Acenaphthene	1.08571	1.05766	1.03037	1.08262	1.14118	1.23078						
	1.26172	1.28548					AVRG		1.14694		8.64845	
83 2,4-Dinitrophenol	+++++	+++++	0.13225	0.14820	0.16563	0.17202						
	0.18101	0.18597					AVRG		0.16418		12.47198	
84 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+000		0.000e+000	<-

2116

C0I020508

Sample Calculation

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

GC Semivolatiles

Lot-Sample #...:	C0I020508-014	**Work Order #...:**	L6HGF1AA	**Matrix.....:**	WATER
Date Sampled...:	09/09/10	**Date Received..:**	09/09/10	**MS Run #.....:**	
Prep Date.....:	09/09/10	**Analysis Date..:**	09/14/10		
Prep Batch #...:	0252401	**Analysis Time..:**	00:46		
Dilution Factor:	1	**Initial Wgt/Vol:**	200 mL	**Final Wgt/Vol..:**	8 mL
Analyst ID.....:	001797	**Instrument ID..:**	U/V		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.40	ug/L	0.10
Aroclor 1221	ND	0.40	ug/L	0.10
Aroclor 1232	ND	0.40	ug/L	0.12
Aroclor 1242	ND	0.40	ug/L	0.074
Aroclor 1248	ND	0.40	ug/L	0.091
Aroclor 1254	ND	0.40	ug/L	0.092
Aroclor 1260	**0.55**	**0.40**	**ug/L**	**0.054**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 140)
Decachlorobiphenyl	96	(35 - 140)

Sample Calculation

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900475.D
Report Date: 14-Sep-2010 12:10

TestAmerica Pittsburgh

Data file : \\pitsvr06\d\chem\gc14.i\09130.b\Z0900475.D
Lab Smp Id: L6HGF1AA Client Smp ID: PW-05 6-18"
Inj Date : 14-SEP-2010 00:26
Operator : 01797 Inst ID: gc14.i
Smp Info : L6HGF1AA,09130.B
Misc Info : C0I020508-14
Comment : 8082 PCB ANALYSIS
Method : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Meth Date : 14-Sep-2010 10:34 gc14.i Quant Type: ESTD
Cal Date : 13-SEP-2010 16:58 Cal File: Z0900453.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt/Vo/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	8000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ug/L)	TARGET RANGE	RATIO
1 Aroclor-1221					CAS #: 11104-28-2		
Operator disabled compound identification.							
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8		
6.049	6.052	-0.003	467664	0.02179	0.87142		(R)
3 Aroclor-1232					CAS #: 11141-16-5		
Operator disabled compound identification.							
4 Aroclor-1016					CAS #: 12674-11-2		
Peaks not detected for Quant. or Qual. signal(s).							

Sample Calculation

Data File: \\pitsvr06\d\chem\gc14.i\09130.b\Z0900475.D
Report Date: 14-Sep-2010 12:10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1242					CAS #: 53469-21-9		
Peaks not detected for Quant. or Qual. signal(s).							
6 Aroclor-1248					CAS #: 12672-29-6		
Peaks not detected for Quant. or Qual. signal(s).							
7 Aroclor-1254					CAS #: 11097-69-1		
Peaks not detected for Quant. or Qual. signal(s).							
8 Aroclor-1260					CAS #: 11096-82-5		
9.730	9.736	-0.006	30737	0.01830	0.73205	0.00- 0.00	0.00(a)
10.025	10.031	-0.006	43238	0.01965	0.78609	115.86- 115.86	0.00
10.237	10.243	-0.006	13135	0.00691	0.27656	136.91- 136.91	0.00
10.549	10.553	-0.004	24549	0.01226	0.49041	140.00- 140.00	0.00
11.028	11.032	-0.004	10757	0.01169	0.46742	128.33- 128.33	0.00
Average of Peak Concentrations =					0.55051		
9 Aroclor-1262					CAS #: 37324-23-5		
Operator disabled compound identification.							
10 Aroclor-1268					CAS #: 11100-14-4		
Operator disabled compound identification.							
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
13.233	13.238	-0.005	273774	0.01949	0.77963		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Report Date : 14-Sep-2010 10:31

or Sample Calculation
HP6890147
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1 / 0.01000 Level 7	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	RRF	% RSD	
(2)	+++++ / +++++	+++++	363258	+++++	+++++	+++++	363258	0.000	<-
(3)	+++++ / +++++	+++++	424154	+++++	+++++	+++++	424154	0.000	<-
(4)	+++++ / +++++	+++++	373486	+++++	+++++	+++++	373486	0.000	<-
(5)	+++++ / +++++	+++++	532860	+++++	+++++	+++++	532860	0.000	<-
7 Aroclor-1254(1)	+++++ / +++++	+++++	1034226	+++++	+++++	+++++	1034226	0.000	
(2)	+++++ / +++++	+++++	1631804	+++++	+++++	+++++	1631804	0.000	
(3)	+++++ / +++++	+++++	971890	+++++	+++++	+++++	971890	0.000	
(4)	+++++ / +++++	+++++	1234692	+++++	+++++	+++++	1234692	0.000	
(5)	+++++ / +++++	+++++	805378	+++++	+++++	+++++	805378	0.000	
8 Aroclor-1260(1)	1734860 / 2037200	1726240	1565694	1577573	1568475	1546408	1679493	10.500	
(2)	2294320 / 2563800	2260750	2068896	2063086	2057373	2092825	2200150	8.558	

Report Date : 14-Sep-2010 10:31

HP6890142 Sample Calculation
MR-2

TestAmerica Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2010 14:56
End Cal Date : 13-SEP-2010 19:00
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon
Method file : \\pitsvr06\d\chem\gc14.i\09130.b\yPCBB.m
Last Edit : 14-Sep-2010 10:31 gc14.i
Curve Type : Average

Compound	0.05000 Level 1	0.20000 Level 2	0.50000 Level 3	1.000 Level 4	2.000 Level 5	4.000 Level 6	0.01000 Level 7	RRF	% RSD	
(3)	1930800	1916195	1753108	1817863	1794160	1841906	2244300	1899762	8.667	
(4)	2166920	2081180	1876288	1839084	1802399	1769922	2480400	2002313	12.869	
(5)	980200	943145	864620	868243	835293	851732	1100600	920548	10.340	
9 Aroclor-1262(1)	+++++	+++++	2451212	+++++	+++++	+++++	+++++	2451212	0.000	
(2)	+++++	+++++	2161058	+++++	+++++	+++++	+++++	2161058	0.000	<-
(3)	+++++	+++++	4162070	+++++	+++++	+++++	+++++	4162070	0.000	<-
(4)	+++++	+++++	1769208	+++++	+++++	+++++	+++++	1769208	0.000	<-
(5)	+++++	+++++	2748096	+++++	+++++	+++++	+++++	2748096	0.000	<-
10 Aroclor-1268(1)	+++++	+++++	5197936	+++++	+++++	+++++	+++++	5197936	0.000	
(2)	+++++	+++++	4278186	+++++	+++++	+++++	+++++	4278186	0.000	<-
(3)	+++++	+++++	3794872	+++++	+++++	+++++	+++++	3794872	0.000	<-

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **November 2, 2010**

FROM: **MEGAN CARSON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-SELECT METALS, pH, HARDNESS, AND DOC**
LOCKHEED MIDDLE RIVER CENTER
SDG C0I020508

SAMPLES: 21/Sediment/Pore Waters/

PW-01 0-6	PW-01 18-30	PW-01 6-18
PW-02 0-6	PW-02 18-30	PW-02 6-18
PW-03 0-6	PW-03 18-30	PW-03 6-18
PW-04 0-6	PW-04 18-30	PW-04 6-18
PW-05 0-6	PW-05 18-30	PW-05 6-18
PW-06 0-6	PW-06 18-30	PW-06 6-18
PW-07 0-6	PW-07 18-30	PW-07 6-18

1/water
Rinsate Blank

Overview

The sample set for Middle River Complex, SDG C0I020508, consists of twenty one (21) sediment pore water samples and one (1) rinsate blank.

All samples were analyzed for select metals including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. All samples were also analyzed for pH, hardness, and dissolved organic carbon (DOC). The samples were collected by Tetra Tech NUS on August 22nd, 2010 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. DOC analyses were conducted using method SM 5310C. Hardness analyses were conducted using method SM 2340B. pH analyses were conducted by using method 9040.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following contaminants were detected in blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Chromium (1)	0.97 ug/L	4.85 ug/L
Chromium (2)	1.2 ug/L	6.0 ug/L

Antimony [3]	0.35 ug/L	1.75 ug/L
Beryllium [3]	0.06 ug/L	0.3 ug/L
Lead [3]	0.05 ug/L	0.25 ug/L
Nickel [3]	0.20 ug/L	1.0 ug/L
Selenium [3]	0.54 ug/L	2.7 ug/L
Silver [3]	0.18 ug/L	0.9 ug/L
Thallium [3]	0.09 ug/L	0.45 ug/L

(1) Maximum concentration present in a preparation blank affecting samples in preparation batch 0252358.
(2) Maximum concentration present in a preparation blank affecting samples in preparation batch 0252362.
(3) Maximum concentration present in a continuing calibration blank affecting all samples analyzed for select metals

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for were qualified "B" as a result of laboratory blank contamination.

- The CRDL standard analyzed on 9/23/10 had a percent recovery > 110% for arsenic, lead, nickel, selenium, silver, and thallium. All samples in the SDG were affected. Positive results <2X CRDL for arsenic, lead and selenium were qualified as estimated (J) due to conflicting directional bias. Nickel and thallium results were not qualified as sample results were already qualified for blank contamination.

- All mercury results were analyzed beyond the 28 day hold time. Non-detect samples results were qualified as biased low (UL).

- Positive results greater than the MDL but less than the RL were qualified as estimated (J).

Notes

The samples were collected as sediments in a core sampling device. The samples were separated into incremental sections at the laboratory and were centrifuged. The laboratory centrifuged the samples and analyzed the water which was displaced from the sediment. The sampling date on the form 1s reflects is date which samples were centrifuged. The sampling date listed on the chain of custody was used to evaluate hold time.

The laboratory indicated that the pore water samples for metals, hardness, pH and DOC were filtered and preserved (metals and DOC) prior to analysis. This item is noted for completeness.

The lab did not include the quality control data for hardness.

Executive Summary

Laboratory Performance: Preparation and calibration blanks resulted in the qualification on several samples. CRDL standard non-compliances for lead, arsenic and selenium resulted in the qualification of sample results. Mercury results were qualified for a hold time non-compliance.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	PW-01 0-6			PW-01 18-30			PW-01 6-18			PW-02 0-6		
SDG: C0I020508	LAB_ID	C0I020508001			C0I020508003			C0I020508002			C0I020508004		
FRACTION: MF	SAMP_DATE	9/7/2010			9/7/2010			9/7/2010			9/2/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.74	B	A	7.6			3.6			4.6		
ARSENIC		1.2	K	C	7.4			2.7			10.9		
BERYLLIUM		0.057	B	A	0.037	U		0.04	B	A	0.069	B	A
CADMIUM		10			1.4			23			0.13	J	P
CHROMIUM		6.3			18.7			16.1			13.7		
COPPER		4.7			1.4	J	P	8.3			1.3	J	P
LEAD		1.2	J	C	2.2			4.5			1.6	J	C
MERCURY		0.038	UL	H	0.038	UL	H	0.038	UL	H	0.038	UL	H
NICKEL		6.8			2.2			2.9			1.2		
SELENIUM		2.6	B	A	1.3	B	A	2.2	B	A	4.8	J	CP
SILVER		0.036	U		0.041	B	A	0.078	B	A	0.036	U	
THALLIUM		0.15	B	A	0.043	B	A	0.081	B	A	0.033	B	A
ZINC		38.9			8.7			47.5			3.9	J	P

PROJ_NO: 02903	NSAMPLE	PW-02 18-30			PW-02 6-18			PW-03 0-6			PW-03 18-30		
SDG: C0I020508	LAB_ID	C0I020508006			C0I020508005			C0I020508007			C0I020508009		
FRACTION: MF	SAMP_DATE	9/2/2010			9/2/2010			9/7/2010			9/7/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		5.8			13.1			2.2			0.9	B	A
ARSENIC		5			11.3			23.4			9.6		
BERYLLIUM		0.037	U		0.044	B	A	0.037	U		0.037	B	A
CADMIUM		0.11	U		0.14	J	P	0.23	J	P	0.11	U	
CHROMIUM		17.5			14.8			11.9			9.8		
COPPER		0.77	J	P	1.7	J	P	1.2	J	P	4.8		
LEAD		0.25	J	CP	0.63	J	CP	0.54	J	CP	0.35	J	CP
MERCURY		0.038	UL	H	0.038	UL	H	0.038	UL	H	0.038	UL	H
NICKEL		2.2			2.3			0.97	B	A	1.8		
SELENIUM		6.5	J	C	4.9	J	CP	4.9	J	CP	5.1	J	C
SILVER		0.036	U		0.036	U		0.036	U		0.036	U	
THALLIUM		0.019	B	A	0.018	B	A	0.015	U		0.015	U	
ZINC		1.9	J	P	4.7	J	P	4.5	J	P	21.4		

PROJ_NO: 02903	NSAMPLE	PW-03 6-18			PW-04 0-6			PW-04 18-30			PW-04 6-18		
SDG: C0I020508	LAB_ID	C0I020508008			C0I020508010			C0I020508012			C0I020508011		
FRACTION: MF	SAMP_DATE	9/7/2010			9/8/2010			9/8/2010			9/8/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.2	B	A	0.47	B	A	0.84	B	A	0.41	B	A
ARSENIC		10.2			6.2			6.3			5.3		
BERYLLIUM		0.037	U		0.037	U		0.043	B	A	0.037	U	
CADMIUM		0.11	U		0.13	J	P	0.11	U		0.11	U	
CHROMIUM		13.7			10			15.5			13.6		
COPPER		1.3	J	P	0.98	J	P	0.82	J	P	0.75	J	P
LEAD		0.26	J	CP	0.1	B	A	0.24	B	A	0.098	B	A
MERCURY		0.038	UL	H	0.038	UL	H	0.038	UL	H	0.038	UL	H
NICKEL		1			1.7			1.4			1.3		
SELENIUM		5.4	J	C	5.1	J	C	6	J	C	5.4	J	C
SILVER		0.036	U		0.036	U		0.036	U		0.036	U	
THALLIUM		0.015	U		0.015	U		0.015	U		0.015	U	
ZINC		3.7	J	P	4.7	J	P	3.2	J	P	2.6	J	P

PROJ_NO: 02903	NSAMPLE	PW-05 0-6			PW-05 18-30			PW-05 6-18			PW-06 0-6		
SDG: C0I020508	LAB_ID	C0I020508013			C0I020508015			C0I020508014			C0I020508016		
FRACTION: MF	SAMP_DATE	9/9/2010			9/9/2010			9/9/2010			9/3/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.9	J	P	1	B	A	3.7			2		
ARSENIC		12.6			9.8			9.5			14.8		
BERYLLIUM		0.06	B	A	0.037	U		0.049	B	A	0.048	B	A
CADMIUM		0.11	U		0.11	U		0.11	U		0.11	U	
CHROMIUM		13			9.3			12.5			8.5		
COPPER		1.2	J	P	2.7			0.78	J	P	2.2		
LEAD		1	J	C	0.56	J	CP	0.65	J	CP	0.7	J	CP
MERCURY		0.038	UL	H	0.038	UL	H	0.038	UL	H	0.038	UL	H
NICKEL		1			1.3			0.96	B	A	1.1		
SELENIUM		4.6	J	CP	4.3	J	CP	4.4	J	CP	4.4	J	CP
SILVER		0.036	U		0.071	B	A	0.055	B	A	0.036	U	
THALLIUM		0.015	U		0.015	U		0.015	U		0.015	U	
ZINC		3.8	J	P	4.3	J	P	3.5	J	P	6.5		

PROJ_NO: 02903	NSAMPLE	PW-06 18-30			PW-06 6-18			PW-07 0-6			PW-07 18-30		
SDG: C0I020508	LAB_ID	C0I020508018			C0I020508017			C0I020508019			C0I020508021		
FRACTION: MF	SAMP_DATE	9/3/2010			9/3/2010			9/3/2010			9/3/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.86	B	A	2.3			0.29	B	A	1.5	B	A
ARSENIC		12.1			18.8			6.7			6.4		
BERYLLIUM		0.046	B	A	0.071	B	A	0.037	U		0.049	B	A
CADMIUM		0.11	U		0.11	U		0.11	U		0.11	U	
CHROMIUM		14.6			7.8			10.3			13.6		
COPPER		2.1			2			1.1	J	P	1.6	J	P
LEAD		0.33	J	CP	0.48	J	CP	0.21	B	A	0.19	B	A
MERCURY		0.038	UL	H	0.038	UL	H	0.038	UL	H	0.038	UL	H
NICKEL		4.4			1.5			0.7	B	A	1.1		
SELENIUM		5	J	C	5.2	J	C	4.9	J	CP	5.7	J	C
SILVER		0.036	U		0.036	U		0.036	U		0.036	U	
THALLIUM		0.015	U		0.015	U		0.015	U		0.039	B	A
ZINC		2.9	J	P	4.3	J	P	2.4	J	P	2.4	J	P

PROJ_NO: 02903	NSAMPLE	PW-07 6-18			Rinsate Blank		
SDG: C0I020508	LAB_ID	C0I020508020			C0I020508022		
FRACTION: MF	SAMP_DATE	9/3/2010			9/8/2010		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.34	B	A	0.12	J	P
ARSENIC		3.4			0.29	U	
BERYLLIUM		0.037	U		0.037	U	
CADMIUM		0.11	U		0.11	U	
CHROMIUM		13.4			5.9		
COPPER		0.81	J	P	1.5	J	P
LEAD		0.27	J	CP	0.072	J	P
MERCURY		0.038	UL	H	0.038	UL	H
NICKEL		0.59	B	A	0.23	J	P
SELENIUM		5.8	J	C	0.42	U	
SILVER		0.036	U		0.036	U	
THALLIUM		0.015	U		0.021	J	P
ZINC		1.7	J	P	3.4	J	P

PROJ_NO: 02903	NSAMPLE	PW-01 0-6						PW-01 18-30					
SDG: C0I020508	LAB_ID	C0I020508001						C0I020508003					
FRACTION: MISC	SAMP_DATE	9/7/2010						9/7/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		12.5						10.7					
HARDNESS		540						260					
PH					7.5						7.7		

PROJ_NO: 02903	NSAMPLE	PW-01 6-18						PW-02 0-6					
SDG: C0I020508	LAB_ID	C0I020508002						C0I020508004					
FRACTION: MISC	SAMP_DATE	9/7/2010						9/2/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		13.1						9.6					
HARDNESS		328						715					
PH					7.8						8.1		

PROJ_NO: 02903	NSAMPLE	PW-02 18-30						PW-02 6-18					
SDG: C0I020508	LAB_ID	C0I020508006						C0I020508005					
FRACTION: MISC	SAMP_DATE	9/2/2010						9/2/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		11.4						8.6					
HARDNESS		880						788					
PH					7.8						8.1		

PROJ_NO: 02903	NSAMPLE	PW-03 0-6						PW-03 18-30					
SDG: C0I020508	LAB_ID	C0I020508007						C0I020508009					
FRACTION: MISC	SAMP_DATE	9/7/2010						9/7/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		8.3						14.9					
HARDNESS		619						578					
PH					7.8						7.2		

PROJ_NO: 02903	NSAMPLE	PW-03 6-18						PW-04 0-6					
SDG: C0I020508	LAB_ID	C0I020508008						C0I020508010					
FRACTION: MISC	SAMP_DATE	9/7/2010						9/8/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		10.5						12.2					
HARDNESS		627						724					
PH					7.4						7.3		

PROJ_NO: 02903	NSAMPLE	PW-04 18-30						PW-04 6-18					
SDG: C0I020508	LAB_ID	C0I020508012						C0I020508011					
FRACTION: MISC	SAMP_DATE	9/8/2010						9/8/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		20.9						15.8					
HARDNESS		747						767					
PH					7.1						7.1		

PROJ_NO: 02903	NSAMPLE	PW-05 0-6						PW-05 18-30					
SDG: C0I020508	LAB_ID	C0I020508013						C0I020508015					
FRACTION: MISC	SAMP_DATE	9/9/2010						9/9/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		8.3						11.4					
HARDNESS		579						441					
PH					7.8						7.2		

PROJ_NO: 02903	NSAMPLE	PW-05 6-18						PW-06 0-6					
SDG: C0I020508	LAB_ID	C0I020508014						C0I020508016					
FRACTION: MISC	SAMP_DATE	9/9/2010						9/3/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		9.4						6.2					
HARDNESS		524						643					
PH					7.6						8.1		

PROJ_NO: 02903	NSAMPLE	PW-06 18-30						PW-06 6-18					
SDG: C0I020508	LAB_ID	C0I020508018						C0I020508017					
FRACTION: MISC	SAMP_DATE	9/3/2010						9/3/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		11.2						8.5					
HARDNESS		617						610					
PH					7.7						7.9		

PROJ_NO: 02903	NSAMPLE	PW-07 0-6						PW-07 18-30					
SDG: C0I020508	LAB_ID	C0I020508019						C0I020508021					
FRACTION: MISC	SAMP_DATE	9/3/2010						9/3/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		14.3						11.5					
HARDNESS		669						724					
PH					7.8						7.7		

PROJ_NO: 02903	NSAMPLE	PW-07 6-18						Rinsate Blank					
SDG: C0I020508	LAB_ID	C0I020508020						C0I020508022					
FRACTION: MISC	SAMP_DATE	9/3/2010						9/8/2010					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			S.U.			MG/L			S.U.		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		9.7						0.79	J	P			
HARDNESS		686						0.11	J	P			
PH					7.7						5.1		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: PW-01 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-001 **Matrix.....:** WATER
Date Sampled...: 09/07/10 **Date Received..:** 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GC31AE
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**1.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AF**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.057 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AG**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	**10.0**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AH**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**6.3 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AJ**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**4.7**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AK**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**6.8**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AL**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**1.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AM**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.74 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AN**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-01 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-001 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**2.6 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AP**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	**0.15 B,J**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AQ**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**38.9**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GC31AR**
		Dilution Factor: 1		Analysis Time..: 14:40	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GC31AU
		Dilution Factor: 1		Analysis Time..: 07:54	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-01 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-003 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	0.041 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AE
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	7.4	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AF
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AG
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	1.4	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AH
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	18.7 J	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AJ
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	1.4 B	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AK
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	2.2	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AL
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	2.2	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AM
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	7.6	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AN
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-01 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-003 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	1.3 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AP
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	0.043 B,J	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AQ
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	8.7	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GDH1AR
		Dilution Factor: 1		Analysis Time..: 14:52	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GDH1AU
		Dilution Factor: 1		Analysis Time..: 07:58	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-01 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-002 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	0.078 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AF
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	2.7	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AG
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	0.040 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AH
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	23.0	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AJ
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	16.1 J	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AK
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	8.3	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AL
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	2.9	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AM
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	4.5	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AN
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	3.6	2.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AP
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-01 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-002 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	2.2 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AQ
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	0.081 B,J	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AR
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	47.5	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GDG1AT
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GDG1AV
		Dilution Factor: 1		Analysis Time..: 07:56	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-02 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-004 Matrix.....: WATER
Date Sampled...: 09/02/10 Date Received..: 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFH1AD
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**10.9**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AE**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.069 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AF**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	**0.13 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AG**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.7 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AH**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.3 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AJ**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AK**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**1.6**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AL**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**4.6**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AM**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-02 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-004 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.8 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AN**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	**0.033 B,J**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AP**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.9 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFH1AQ**
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GFH1AT
		Dilution Factor: 1		Analysis Time..: 08:00	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-02 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-006 Matrix.....: WATER
Date Sampled...: 09/02/10 Date Received..: 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AD
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**5.0**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AE**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AF
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AG
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**17.5 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AH**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**0.77 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AJ**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**2.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AK**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.25 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AL**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**5.8**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFK1AM**
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-02 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-006 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	6.5	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AN
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	0.019 B,J	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AP
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	1.9 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GFK1AQ
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GFK1AT
		Dilution Factor: 1		Analysis Time..: 08:03	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-02 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-005 Matrix.....: WATER
Date Sampled...: 09/02/10 Date Received..: 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFJ1AD
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**11.3**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AE**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.044 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AF**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	**0.14 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AG**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**14.8 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AH**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.7 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AJ**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**2.3**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AK**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.63 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AL**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**13.1**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6GFJ1AM**
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-02 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-005 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	4.9 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GFJ1AN
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	0.018 B,J	1.0	ug/L	SW846 6020	09/09-09/23/10	L6GFJ1AP
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	4.7 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6GFJ1AQ
		Dilution Factor: 1		Analysis Time..: 15:15	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6GFJ1AT
		Dilution Factor: 1		Analysis Time..: 08:01	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-007 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G831AE
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**23.4**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AF**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G831AG
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	**0.23 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AH**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**11.9 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AJ**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.2 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AK**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**0.97 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AL**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.54 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AM**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**2.2**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AN**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-03 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-007 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.9 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AP**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G831AQ
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**4.5 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G831AR**
		Dilution Factor: 1		Analysis Time..: 16:25	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6G831AU
		Dilution Factor: 1		Analysis Time..: 08:05	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-009 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G851AE
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**9.6**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AF**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.037 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AG**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G851AH
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**9.8 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AJ**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**4.8**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AK**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.8**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AL**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.35 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AM**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.90 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AN**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-03 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-009 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**5.1**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AP**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G851AQ
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**21.4**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G851AR**
		Dilution Factor: 1		Analysis Time..: 16:34	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6G851AU
		Dilution Factor: 1		Analysis Time..: 08:11	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-03 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-008 **Matrix.....:** WATER
Date Sampled...: 09/07/10 **Date Received..:** 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G841AE
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**10.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AF**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G841AG
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G841AH
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.7 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AJ**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.3 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AK**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.0**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AL**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.26 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AM**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**1.2 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AN**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-03 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-008 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**5.4**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AP**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6G841AQ
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.7 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6G841AR**
		Dilution Factor: 1		Analysis Time..: 16:30	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6G841AU
		Dilution Factor: 1		Analysis Time..: 08:10	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-010 Matrix.....: WATER
Date Sampled...: 09/08/10 Date Received..: 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF51AF
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**6.2**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AG**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF51AH
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	**0.13 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AJ**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**10 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AK**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**0.98 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AL**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.7**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AM**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.10 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AN**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.47 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AP**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-04 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-010 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	5.1	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AQ**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF51AR
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**4.7 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF51AT**
		Dilution Factor: 1		Analysis Time..: 15:24	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HF51AV
		Dilution Factor: 1		Analysis Time..: 08:13	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-012 Matrix.....: WATER
Date Sampled...: 09/08/10 Date Received..: 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGD1AE
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**6.3**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AF**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.043 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AG**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGD1AH
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**15.5 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AJ**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**0.82 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AK**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.4**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AL**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.24 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AM**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.84 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AN**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-04 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-012 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**6.0**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AP**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGD1AQ
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.2 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGD1AR**
		Dilution Factor: 1		Analysis Time..: 15:32	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGD1AU
		Dilution Factor: 1		Analysis Time..: 08:16	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-04 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-011 Matrix.....: WATER
Date Sampled...: 09/08/10 Date Received..: 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF81AE
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**5.3**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AF**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF81AG
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF81AH
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.6 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AJ**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**0.75 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AK**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.3**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AL**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.098 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AM**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.41 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AN**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-04 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-011 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**5.4**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AP**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HF81AQ
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**2.6 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HF81AR**
		Dilution Factor: 1		Analysis Time..: 15:28	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HF81AU
		Dilution Factor: 1		Analysis Time..: 08:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-013 **Matrix.....:** WATER
Date Sampled...: 09/09/10 **Date Received..:** 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGE1AE
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**12.6**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AF**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.060 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AG**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGE1AH
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.0 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AJ**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.2 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AK**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.0**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AL**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**1.0**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AM**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**1.9 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AN**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-05 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.6 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AP**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGE1AQ
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.8 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGE1AR**
		Dilution Factor: 1		Analysis Time..: 15:37	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGE1AU
		Dilution Factor: 1		Analysis Time..: 08:18	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-015 Matrix.....: WATER
Date Sampled...: 09/09/10 Date Received..: 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	0.071 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AE
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	9.8	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AF
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AG
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AH
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	9.3 J	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AJ
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	2.7	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AK
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	1.3	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AL
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	0.56 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AM
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	1.0 B	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AN
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-05 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-015 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.3 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGH1AP**
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGH1AQ
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**4.3 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGH1AR**
		Dilution Factor: 1		Analysis Time..: 15:45	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGH1AU
		Dilution Factor: 1		Analysis Time..: 08:21	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-014 Matrix.....: WATER
Date Sampled...: 09/09/10 Date Received..: 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	0.055 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AE
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	9.5	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AF
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	0.049 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AG
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AH
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	12.5 J	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AJ
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	0.78 B	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AK
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	0.96 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AL
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	0.65 B	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AM
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	3.7	2.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AN
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-014 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.4 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGF1AP**
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGF1AQ
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.5 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGF1AR**
		Dilution Factor: 1		Analysis Time..: 15:41	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGF1AU
		Dilution Factor: 1		Analysis Time..: 08:20	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-06 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-016 Matrix.....: WATER
Date Sampled...: 09/03/10 Date Received..: 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGJ1AC
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**14.8**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AD**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.048 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AE**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGJ1AF
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**8.5 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AG**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**2.2**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AH**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.1**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AJ**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.70 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AK**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**2.0**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AL**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-06 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-016 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.4 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AM**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGJ1AN
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**6.5**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGJ1AP**
		Dilution Factor: 1		Analysis Time..: 15:49	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGJ1AR
		Dilution Factor: 1		Analysis Time..: 08:23	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-06 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-018 Matrix.....: WATER
Date Sampled...: 09/03/10 Date Received..: 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGN1AC
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**12.1**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AD**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.046 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AE**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGN1AF
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**14.6 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AG**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**2.1**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AH**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**4.4**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AJ**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.33 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AK**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.86 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AL**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-06 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-018 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**5.0**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AM**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGN1AN
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**2.9 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGN1AP**
		Dilution Factor: 1		Analysis Time..: 16:12	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGN1AR
		Dilution Factor: 1		Analysis Time..: 08:30	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-06 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-017 Matrix.....: WATER
Date Sampled...: 09/03/10 Date Received..: 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGL1AC
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**18.8**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AD**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.071 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AE**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGL1AF
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**7.8 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AG**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**2.0**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AH**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.5**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AJ**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.48 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AK**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**2.3**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AL**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-06 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-017 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**5.2**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AM**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGL1AN
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**4.3 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGL1AP**
		Dilution Factor: 1		Analysis Time..: 16:08	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGL1AR
		Dilution Factor: 1		Analysis Time..: 08:25	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: PW-07 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-019 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGV1AC
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**6.7**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AD**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGV1AE
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGV1AF
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**10.3 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AG**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.1 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AH**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**0.70 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AJ**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.21 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AK**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.29 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AL**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-07 0-6"

DISSOLVED Metals

Lot-Sample #...: C0I020508-019 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	**4.9 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AM**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGV1AN
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**2.4 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGV1AP**
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGV1AR
		Dilution Factor: 1		Analysis Time..: 08:32	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-07 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-021 Matrix.....: WATER
Date Sampled...: 09/03/10 Date Received..: 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252362						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HG31AC
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**6.4**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AD**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	**0.049 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AE**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HG31AF
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.6 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AG**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.6 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AH**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**1.1**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AJ**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.19 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AK**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**1.5 B,E**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AL**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-07 18-30"

DISSOLVED Metals

Lot-Sample #...: C0I020508-021 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	5.7	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AM**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	0.039 B	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AN**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	2.4 B	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HG31AP**
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271011						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HG31AR
		Dilution Factor: 1		Analysis Time..: 08:40	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

Tetra Tech NUS, Inc

Client Sample ID: PW-07 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-020 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252358						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AC
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	**3.4**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AD**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AE
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AF
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**13.4 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AG**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**0.81 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AH**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**0.59 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AJ**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.27 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AK**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.34 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6HGX1AL**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: PW-07 6-18"

DISSOLVED Metals

Lot-Sample #...: C0I020508-020 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	5.8	5.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AM
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AN
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	1.7 B	5.0	ug/L	SW846 6020	09/09-09/23/10	L6HGX1AP
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271010						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6HGX1AR
		Dilution Factor: 1		Analysis Time..: 08:33	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: Rinsate Blank

DISSOLVED Metals

Lot-Sample #...: C0I020508-022 **Matrix.....:** WATER
Date Sampled...: 09/08/10 **Date Received..:** 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0252362						
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6M4H1AE
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.036	
Arsenic	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6M4H1AF
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.29	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6M4H1AG
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.037	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6M4H1AH
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.11	
Chromium	**5.9 J**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AJ**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.54	
Copper	**1.5 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AK**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.24	
Nickel	**0.23 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AL**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.17	
Lead	**0.072 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AM**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	
Antimony	**0.12 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AN**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.019	

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Tetra Tech NUS, Inc

Client Sample ID: Rinsate Blank

DISSOLVED Metals

Lot-Sample #...: C0I020508-022 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	ND	5.0	ug/L	SW846 6020	09/09-09/23/10	L6M4H1AP
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.42	
Thallium	**0.021 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AQ**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.015	
Zinc	**3.4 B**	**5.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6M4H1AR**
		Dilution Factor: 1		Analysis Time..: 17:20	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....: 0.96	
Prep Batch #...: 0271011						
Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L6M4H1AU
		Dilution Factor: 1		Analysis Time..: 08:42	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....:	MDL.....: 0.038	

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: PW-01 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-001 **Matrix.....:** WATER
Date Sampled...: 09/07/10 **Date Received..:** 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**540**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6GC31AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-01 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-003 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	260	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6GDH1AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-01 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-002 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	328	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6GDG1AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-02 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-004 **Matrix.....:** WATER
Date Sampled...: 09/02/10 **Date Received..:** 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	715	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6GFH1AC
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-02 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-006 **Matrix.....:** WATER
Date Sampled...: 09/02/10 **Date Received..:** 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**880**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6GFK1AC**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-02 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-005 Matrix.....: WATER
Date Sampled...: 09/02/10 Date Received..: 09/02/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	788	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6GFJ1AC
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-03 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-007 **Matrix.....:** WATER
Date Sampled...: 09/07/10 **Date Received..:** 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**619**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6G831AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-03 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-009 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	578	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6G851AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-03 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-008 Matrix.....: WATER
Date Sampled...: 09/07/10 Date Received..: 09/07/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	627	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6G841AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-04 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-010 Matrix.....: WATER
Date Sampled...: 09/08/10 Date Received..: 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	724	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6HF51AE
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-04 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-012 **Matrix.....:** WATER
Date Sampled...: 09/08/10 **Date Received..:** 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**747**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGD1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-04 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-011 Matrix.....: WATER
Date Sampled...: 09/08/10 Date Received..: 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	767	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6HF81AD
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-05 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-013 **Matrix.....:** WATER
Date Sampled...: 09/09/10 **Date Received..:** 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**579**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGE1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-05 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-015 **Matrix.....:** WATER
Date Sampled...: 09/09/10 **Date Received..:** 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**441**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGH1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-05 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-014 **Matrix.....:** WATER
Date Sampled...: 09/09/10 **Date Received..:** 09/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**524**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGF1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-06 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-016 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**643**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGJ1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-06 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-018 Matrix.....: WATER
Date Sampled...: 09/03/10 Date Received..: 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	617	0.67	mg/L	SM18 2340B	09/09-09/23/10	L6HGN1AA
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-06 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-017 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**610**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGL1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-07 0-6"

TOTAL Metals

Lot-Sample #...: C0I020508-019 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**669**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGV1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-07 18-30"

TOTAL Metals

Lot-Sample #...: C0I020508-021 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**724**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HG31AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: PW-07 6-18"

TOTAL Metals

Lot-Sample #...: C0I020508-020 **Matrix.....:** WATER
Date Sampled...: 09/03/10 **Date Received..:** 09/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**686**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6HGX1AA**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

Tetra Tech NUS, Inc

Client Sample ID: Rinsate Blank

TOTAL Metals

Lot-Sample #...: C0I020508-022 **Matrix.....:** WATER
Date Sampled...: 09/08/10 **Date Received..:** 09/08/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0267204						
Hardness	**0.11 B**	**0.67**	**mg/L**	**SM18 2340B**	**09/09-09/23/10**	**L6M4H1AD**
		Dilution Factor: 1		Analysis Time..: 00:00	Analyst ID.....: 400149	
		Instrument ID..: ICPMS2		MS Run #.....:	MDL.....:	

NOTE(S):

B Estimated result. Result is less than RL.

Tetra Tech Middle River, MD

pH

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: SW846 9040
Lot Number: C0I020508

pH Aqueous

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
PW-01 0-6"	C0I020508 001	L6GC31AV	7.5	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:40	0251066
PW-01 6-18"	C0I020508 002	L6GDG1A	7.8	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:42	0251066
PW-01 18-30"	C0I020508 003	L6GDH1AV	7.7	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:44	0251066
PW-02 0-6"	C0I020508 004	L6GFH1AU	8.1	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:08	0246280
PW-02 6-18"	C0I020508 005	L6GFJ1AU	8.1	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:10	0246280
PW-02 18-30"	C0I020508 006	L6GFK1AU	7.8	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:12	0246280
PW-03 0-6"	C0I020508 007	L6G831AV	7.8	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:46	0251066
PW-03 6-18"	C0I020508 008	L6G841AV	7.4	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:50	0251066
PW-03 18-30"	C0I020508 009	L6G851AV	7.2	--	0.0	0.10	1	9/8/2010 - 9/8/2010 08:52	0251066
PW-04 0-6"	C0I020508 010	L6HF51AW	7.3	--	0.0	0.10	1	9/8/2010 - 9/8/2010 14:12	0251244
PW-04 6-18"	C0I020508 011	L6HF81AV	7.1	--	0.0	0.10	1	9/8/2010 - 9/8/2010 14:15	0251244
PW-04 18-30"	C0I020508 012	L6HGD1AV	7.1	--	0.0	0.10	1	9/8/2010 - 9/8/2010 14:17	0251244
PW-05 0-6"	C0I020508 013	L6HGE1AV	7.8	--	0.0	0.10	1	9/9/2010 - 9/9/2010 15:14	0252323
PW-05 6-18"	C0I020508 014	L6HGF1AV	7.6	--	0.0	0.10	1	9/9/2010 - 9/9/2010 15:16	0252323
PW-05 18-30"	C0I020508 015	L6HGH1AV	7.2	--	0.0	0.10	1	9/9/2010 - 9/9/2010 15:18	0252323
PW-06 0-6"	C0I020508 016	L6HGJ1AT	8.1	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:14	0246280
PW-06 6-18"	C0I020508 017	L6HGL1AT	7.9	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:16	0246280
PW-06 18-30"	C0I020508 018	L6HGN1AT	7.7	--	0.0	0.10	1	9/3/2010 - 9/3/2010 17:18	0246280

Tetra Tech Middle River, MD

pH

Lab Name: TESTAMERICA PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: SW846 9040
Lot Number: C0I020508

PW-07 0-6"	C0I020508	019	L6HGV1AT	7.8	--	0.0	0.10	1	9/3/2010 17:20	- 9/3/2010	0246280
PW-07 6-18"	C0I020508	020	L6HGX1AT	7.7	--	0.0	0.10	1	9/3/2010 17:22	- 9/3/2010	0246280
PW-07 18-30"	C0I020508	021	L6HG31AT	7.7	--	0.0	0.10	1	9/3/2010 17:26	- 9/3/2010	0246280
Rinsate Blank	C0I020508	022	L6M4H1AV	5.1	--	0.0	0.10	1	9/8/2010 14:32	- 9/8/2010	0251252

Tetra Tech Middle River, MD

Dissolved Organic Carbon

Lab Name: TESTAMERICA PITTSBURGH **Method:** SM20 5310C

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0I020508

Matrix: WATER

NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Method Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
PW-01 0-6"	C0I020508 001	L6GC31AT	12.5	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-01 6-18"	C0I020508 002	L6GDG1AU	13.1	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-01 18-30"	C0I020508 003	L6GDH1AT	10.7	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-02 0-6"	C0I020508 004	L6GFH1AR	9.6	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-02 6-18"	C0I020508 005	L6GFJ1AR	8.6	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-02 18-30"	C0I020508 006	L6GFK1AR	11.4	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-03 0-6"	C0I020508 007	L6G831AT	8.3	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-03 6-18"	C0I020508 008	L6G841AT	10.5	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-03 18-30"	C0I020508 009	L6G851AT	14.9	mg/L	0.14	1.0	1	9/29/2010 - 9/29/2010 00:00	0272055
PW-04 0-6"	C0I020508 010	L6HF51AU	12.2	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-04 6-18"	C0I020508 011	L6HF81AT	15.8	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-04 18-30"	C0I020508 012	L6HGD1AT	20.9	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-05 0-6"	C0I020508 013	L6HGE1AT	8.3	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-05 6-18"	C0I020508 014	L6HGF1AT	9.4	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-05 18-30"	C0I020508 015	L6HGH1AT	11.4	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-06 0-6"	C0I020508 016	L6HGJ1AQ	6.2	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-06 6-18"	C0I020508 017	L6HGL1AQ	8.5	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048
PW-06 18-30"	C0I020508 018	L6HGN1AQ	11.2	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010 00:00	0270048

Tetra Tech Middle River, MD

Dissolved Organic Carbon

Lab Name: TESTAMERICA PITTSBURGH **Method:** SM20 5310C

Client Name: Tetra Tech NUS, Inc **Lot Number:** C0I020508

Matrix: WATER

PW-07 0-6"	C0I020508	019	L6HGV1AQ	14.3	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010	00:00	0270048
PW-07 6-18"	C0I020508	020	L6HGX1AQ	9.7	mg/L	0.14	1.0	1	9/28/2010 - 9/28/2010	00:00	0270048
PW-07 18-30"	C0I020508	021	L6HG31AQ	11.5	mg/L	0.14	1.0	1	9/27/2010 - 9/27/2010	00:00	0270194
Rinsate Blank	C0I020508	022	L6M4H1AT	0.79 B	mg/L	0.14	1.0	1	9/27/2010 - 9/27/2010	00:00	0270194

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0I020508

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on August 24, 2010. The coolers were received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Volatiles:
TestAmerica's North Canton laboratory performed the VOA analysis. All data is included in the package.

Due to the concentration of target compounds detected, PW-01 Composite was analyzed at a dilution.

The method blank had compounds detected below the reporting limit but above the MDL. The result was flagged with a "J" qualifier. Any sample associated with this blank that had the same compounds detected had the result flagged with a "B" qualifier.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected and/or matrix, all samples were analyzed at a dilution.

Sample PW-05 18-30" had nitrobenzene-d5 surrogate recover below the control limit. The sample was analyzed at a dilution.

The RPD between the LCS and LCSD recovered above the control limit for 4-nitrophenol.

All non-CCC compounds that have >15% RSD were evaluated to see if a better curve could be drawn using a quadratic curve. All compounds <30% RSD will use an average response factor curve if no visible improvement is accomplished using a quadratic curve. A quadratic curve will be used for a compound where it is determined to be the "best-fit" evaluation.

The continuing calibrations had the %D > 25% but were within expected performance range for these compounds.

PCBs:
There were no problems associated with the analysis.

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0I020508

Metals:
The serial dilution percent difference was outside the control limits for antimony in sample PW-07 18-30".

The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

General Chemistry:
pH is a field parameter. Laboratory pH analysis was completed at the request of the client.

METHODS SUMMARY

C0I020508

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH Aqueous	SW846 9040	SW846 9040
Dissolved Organic Carbon 5310C	SM20 5310C	
ICP-MS (6020)	SW846 6020	SW846 3005A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
PCBs by SW-846 8082	SW846 8082	SW846 3510C
Semivolatile Organics GCMS BNA 8270C	SW846 8270C	
Total Hardness	SM18 2340B	
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

References:

SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

SM20 "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", 20TH EDITION."

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
TETRA Tech	Mike MARTIN	8/22/10	154232

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
20251 Century Blvd Suite 200	301-528-3022 301-528-3000		1 of 1

City	State	Zip Code	Site Contact	Lab Contact
Germantown	MD	20874	Tony Apanavage	

Project Name and Location (State): MCR Sed. Sampling

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	2 cores	PPmetals	PAHs	PCBs	~~[illegible]~~	DOC	Hardness	PH	Special Instructions/ Conditions of Receipt
PW-01	8/22/10	0818			X		X						X	X				X	X	X	See Table 1-1
PW-02	↓	0917			↓		↓						X	X				X	X	X	Avg. 9.20
PW-03		1007											X	X	X	X		X	X	X	
PW-04		1344											X	X	X	X		X	X	X	
PW-05		1401											X	X	X	X		X	X	X	
PW-06		1247											X	X				X	X	X	
PW-07	8/22/10	1315			X		X						X	X				X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/23/10	1530	1. Received By: [signature]	8/23/10	1530
2. Relinquished By: [signature]	8/23/10	1630	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/24/10	1015

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

C0I020508

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6GC3	001	PW-01 0-6"	09/07/10	08:18
L6GDG	002	PW-01 6-18"	09/07/10	08:18
L6GDH	003	PW-01 18-30"	09/07/10	08:18
L6GFH	004	PW-02 0-6"	09/02/10	09:17
L6GFJ	005	PW-02 6-18"	09/02/10	09:17
L6GFK	006	PW-02 18-30"	09/02/10	09:17
L6G83	007	PW-03 0-6"	09/07/10	
L6G84	008	PW-03 6-18"	09/07/10	
L6G85	009	PW-03 18-30"	09/07/10	
L6HF5	010	PW-04 0-6"	09/08/10	
L6HF8	011	PW-04 6-18"	09/08/10	
L6HGD	012	PW-04 18-30"	09/08/10	
L6HGE	013	PW-05 0-6"	09/09/10	
L6HGF	014	PW-05 6-18"	09/09/10	
L6HGH	015	PW-05 18-30"	09/09/10	
L6HGJ	016	PW-06 0-6"	09/03/10	
L6HGL	017	PW-06 6-18"	09/03/10	
L6HGN	018	PW-06 18-30"	09/03/10	
L6HGV	019	PW-07 0-6"	09/03/10	
L6HGX	020	PW-07 6-18"	09/03/10	
L6HG3	021	PW-07 18-30"	09/03/10	
L6M4H	022	Rinsate Blank	09/08/10	
L6NL7	023	PW-01 Composite	09/08/10	16:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Pittsburgh

Cooler Receipt Form

Client: Tetra Tech NUS Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 8/24/10

Coolers Opened and Unpacked on: 8/25/10 By: PRF (Signature)

TestAmerica Pittsburgh Lot Number: COH250419

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	/		
	If YES, how many and where? Quantity 1 Location front			
	Were signatures and date correct?	/		
2.	Were custody papers included inside the cooler?	/		
3.	Were custody papers properly filled out (ink, signed, match labels)?	/		
4.	Did you sign the custody papers in the appropriate place?	/		
5.	Was shippers packing slip attached to this form?	/		
6.	Were packing materials used?	/		
	If YES, what type? Bubble Wrap			
7.	Were the samples received within the acceptable temperature range?	/		
8.	Were the samples appropriately preserved?			/
9.	Were all bottles sealed in separate plastic bags?		/	
10.	Did all bottles arrive in good condition (unbroken)?	/		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	/		
12.	Did all bottle labels and/or tags agree with custody papers?	/		
13.	Were correct bottles used for tests indicated?	/		
14.	Were all VOA vials checked for the presence of air bubbles?			/
15.	Was a sufficient amount of sample sent in each bottle?	/		

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

Cooler Receipt Form

TestAmerica Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	Bronze PH<2			

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

Cooler Number	Temperature*	Thermometer ID
1	4.6°	9
2	4.1°	4
3	3.8°	9

Sample	Lot Number**

* Acceptable Temperature Range: 4°C ± 2°C

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

From: Origin ID: MTNA (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

J102014080890225

Ship Date: 23AUG10
ActWgt: 140.0 LB
CAD: 1030460/INET3060

Delivery Address Bar Code

SHIP TO: (412) 963-7058 BILL RECIPIENT
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

Ref # TetraTech Seditments
Invoice #
PO #
Dept #

3 of 3

MPS# 0263 7989 7617 2570

Mstr# 7989 7617 2433 0201

TUE - 24 AUG A2
STANDARD OVERNIGHT

15238
PA-US
PIT

NA AGCA

508G4/33D8/8A24

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: Origin ID: MTNA (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

FedEx Express

Ship Date: 23AUG10
ActWgt: 140.0 LB
CAD: 1030460/INET3060

Delivery Address Bar Code

Ref # TetraTech Seditments
Invoice #
PO #
Dept #

SHIP TO: (412) 963-7058 BILL RECIPIENT
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

2 of 3
MPS# 0263 7989 7617 2514
Mstr# 7989 7617 2433 0201

TUE - 24 AUG A2
STANDARD OVERNIGHT

15238
PA-US
PIT

NA AGCA

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: Origin ID: MTNA (410) 869-0085
Ken Ives
STL BALTIMORE
5710 Executive Drive
Suite 106
Baltimore, MD 21228

FedEx Express

Ship Date: 23AUG10
ActWgt: 140.0 LB
CAD: 1030460/INET3060

Delivery Address Bar Code

Ref # TetraTech Seditments
Invoice #
PO #
Dept #

SHIP TO: (412) 963-7058 BILL RECIPIENT
Test America Pittsburgh
Test America Pittsburgh
301 ALPHA DR
RIDC PARK
PITTSBURGH, PA 15238

1 of 3

TRK# 0201 7989 7617 2433

TUE - 24 AUG A2
STANDARD OVERNIGHT

MASTER

15238
PA-US
PIT

NA AGCA

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

HOLDTIME

SDG C0I020508

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
MF	UG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
MF	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
MF	UG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
MF	UG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
MF	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
MF	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
MF	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
MF	UG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
MF	UG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
MF	UG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
DOC	MG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/27/2010	09/27/2010	19	0	19
DOC	MG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/27/2010	09/27/2010	24	0	24

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
DOC	MG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/28/2010	09/28/2010	19	0	19
DOC	MG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
DOC	MG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/28/2010	09/28/2010	25	0	25
DOC	MG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
DOC	MG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/29/2010	09/29/2010	22	0	22
DOC	MG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/28/2010	09/28/2010	21	0	21
DOC	MG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/28/2010	09/28/2010	20	0	20
DOC	MG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/28/2010	09/28/2010	26	0	26
HARD	MG/L	PW-02 0-6	C0I020508004	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-03 18-30	C0I020508009	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HARD	MG/L	PW-06 6-18	C0I020508017	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-01 6-18	C0I020508002	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-02 18-30	C0I020508006	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-01 18-30	C0I020508003	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-01 0-6	C0I020508001	NM	09/07/2010	09/09/2010	09/23/2010	2	14	16
HARD	MG/L	PW-02 6-18	C0I020508005	NM	09/02/2010	09/09/2010	09/23/2010	7	14	21
HARD	MG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-04 18-30	C0I020508012	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-04 6-18	C0I020508011	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
HARD	MG/L	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/23/2010	0	14	14
HARD	MG/L	PW-06 0-6	C0I020508016	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-06 18-30	C0I020508018	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 6-18	C0I020508020	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 18-30	C0I020508021	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20
HARD	MG/L	PW-07 0-6	C0I020508019	NM	09/03/2010	09/09/2010	09/23/2010	6	14	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HARD	MG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/09/2010	09/23/2010	1	14	15
PH	--	PW-04 18-30	C0I020508012	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-01 0-6	C0I020508001	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-01 18-30	C0I020508003	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-01 6-18	C0I020508002	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-02 0-6	C0I020508004	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-02 18-30	C0I020508006	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-02 6-18	C0I020508005	NM	09/02/2010	09/03/2010	09/03/2010	1	0	1
PH	--	PW-03 0-6	C0I020508007	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-03 18-30	C0I020508009	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
PH	--	PW-05 0-6	C0I020508013	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-04 0-6	C0I020508010	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	Rinsate Blank	C0I020508022	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-04 6-18	C0I020508011	NM	09/08/2010	09/08/2010	09/08/2010	0	0	0
PH	--	PW-05 18-30	C0I020508015	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-05 6-18	C0I020508014	NM	09/09/2010	09/09/2010	09/09/2010	0	0	0
PH	--	PW-06 0-6	C0I020508016	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-06 18-30	C0I020508018	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PH	--	PW-06 6-18	C0I020508017	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 0-6	C0I020508019	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 18-30	C0I020508021	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-07 6-18	C0I020508020	NM	09/03/2010	09/03/2010	09/03/2010	0	0	0
PH	--	PW-03 6-18	C0I020508008	NM	09/07/2010	09/08/2010	09/08/2010	1	0	1
OV	UG/L	PW-01 Composite	C0I020508023	NM	09/08/2010	09/13/2010	09/13/2010	5	0	5
OV	UG/L	PW-01 Composite	C0I020508023	SUR	09/08/2010	09/13/2010	09/13/2010	5	0	5
SIM	UG/L	PW-04 0-6	C0I020508010	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 6-18	C0I020508008	NM	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-04 18-30	C0I020508012	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	Rinsate Blank	C0I020508022	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 0-6	C0I020508007	NM	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-03 0-6	C0I020508007	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-03 18-30	C0I020508009	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	Rinsate Blank	C0I020508022	SUR	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-03 6-18	C0I020508008	SUR	09/07/2010	09/13/2010	09/14/2010	6	1	7
SIM	UG/L	PW-04 0-6	C0I020508010	NM	09/08/2010	09/13/2010	09/14/2010	5	1	6
SIM	UG/L	PW-05 18-30	C0I020508015	SUR	09/09/2010	09/13/2010	09/14/2010	4	1	5

C0I020508

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: TETRA Tech	Project Manager: Mike Martin	Date: 8/22/10	Chain of Custody Number: 154232
Address: 20251 Century Blvd Suite 200	Telephone Number (Area Code)/Fax Number: 301-528-3022 301-528-3000	Lab Number:	Page 1 of 1
City: Germantown State: MD Zip Code: 20874	Site Contact: Tony Apanavage Lab Contact:		
Project Name and Location (State): MCR Sed. Sampling	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	2 coolers	PPMetals	PAHs	PCBs	~~[illegible]~~	DOC	Hardness	PH	VOCs	Special Instructions/ Conditions of Receipt
PW-01	8/22/10	0818			X		X						X	X				X	X	X		See Table 1-1
PW-02	↓	0917			↓		↓						X	X				X	X	X		Avg. 9.20
PW-03		1007											X	X	X	X		X	X	X		
PW-04		1344											X	X	X	X		X	X	X		
PW-05		1401											X	X	X	X		X	X	X		
PW-06		1247											X	X				X	X	X		
PW-07	8/22/10	1315			X		X						X	X				X	X	X		
PW-01 Composite																						
Rinsate Blank																						

* See Sample Summary for Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/23/10	1530	1. Received By: [signature]	8/23/10	1530
2. Relinquished By: [signature]	8/23/10	1630	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	8/24/10	1015

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

C0I020508

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6GC3	001	PW-01 0-6"	09/07/10	08:18
L6GDG	002	PW-01 6-18"	09/07/10	08:18
L6GDH	003	PW-01 18-30"	09/07/10	08:18
L6GFH	004	PW-02 0-6"	09/02/10	09:17
L6GFJ	005	PW-02 6-18"	09/02/10	09:17
L6GFK	006	PW-02 18-30"	09/02/10	09:17
L6G83	007	PW-03 0-6"	09/07/10	
L6G84	008	PW-03 6-18"	09/07/10	
L6G85	009	PW-03 18-30"	09/07/10	
L6HF5	010	PW-04 0-6"	09/08/10	
L6HF8	011	PW-04 6-18"	09/08/10	
L6HGD	012	PW-04 18-30"	09/08/10	
L6HGE	013	PW-05 0-6"	09/09/10	
L6HGF	014	PW-05 6-18"	09/09/10	
L6HGH	015	PW-05 18-30"	09/09/10	
L6HGJ	016	PW-06 0-6"	09/03/10	
L6HGL	017	PW-06 6-18"	09/03/10	
L6HGN	018	PW-06 18-30"	09/03/10	
L6HGV	019	PW-07 0-6"	09/03/10	
L6HGX	020	PW-07 6-18"	09/03/10	
L6HG3	021	PW-07 18-30"	09/03/10	
L6M4H	022	Rinsate Blank	09/08/10	
L6NL7	023	PW-01 Composite	09/08/10	16:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Tetra Tech Middle River, MD

Dissolved Organic Carbon

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 5310C
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0I020508
Matrix:	WATER	**Date/Time Received:**	9/7/2010 10:15:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
BLK - C0I270000048B	048 MB	L7JL91AA	ND	mg/L	1.0	9/28/2010 - 9/28/2010 00:00	0270048	
BLK - C0I270000194B	194 MB	L7JME1AA	ND	mg/L	1.0	9/27/2010 - 9/27/2010 00:00	0270194	
BLK - C0I290000055B	055 MB	L7MNL1AA	ND	mg/L	1.0	9/29/2010 - 9/29/2010 00:00	0272055	

Tetra Tech Middle River, MD

Dissolved Organic Carbon

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 5310C
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0I270000
Matrix:	WATER	**Date/Time Received:**	9/7/2010 10:15:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L7JL91AC	95	80 - 120	9/28/2010 - 9/28/2010 00:00	0270048	1.1 / 20
CHECK SAMPLE	LCS	L7JME1AC	93	80 - 120	9/27/2010 - 9/27/2010 00:00	0270194	0.23 / 20
CHECK SAMPLE	LCS	L7MNL1AC	96	80 - 120	9/29/2010 - 9/29/2010 00:00	0272055	0.27 / 20
DUPLICATE CHECK	LCSD	L7JL91AD	94	80 - 120	9/28/2010 - 9/28/2010 00:00	0270048	1.1 / 20
DUPLICATE CHECK	LCSD	L7JME1AD	93	80 - 120	9/27/2010 - 9/27/2010 00:00	0270194	0.23 / 20
DUPLICATE CHECK	LCSD	L7MNL1AD	96	80 - 120	9/29/2010 - 9/29/2010 00:00	0272055	0.27 / 20

Tetra Tech Middle River, MD

pH

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 9040
Client Name:	Tetra Tech NUS, Inc	**Report ID:**	C0I020508
Matrix:	WATER	**Date/Time Received:**	9/2/2010 10:00:00AM

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Prep Date-Analysis Date/Time	QC Batch	RPD / Limit (%)
INTRA-LAB QC	001 DUP	L6GXR1CC	7.8	--		9/3/2010 - 9/3/2010 17:30	0246280	0.0 / 2.0
INTRA-LAB QC	004 DUP	L6M0N1AC	7.6	--		9/9/2010 - 9/9/2010 15:22	0252323	0.0 / 2.0

Tetra Tech Middle River, MD

pH

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SM20 9040
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0I090000
Matrix:	WATER	**Date/Time Received:**	9/8/2010 9:30:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6QGP1AA	101	99 - 101	9/9/2010 - 9/9/2010 15:12	0252323	
CHECK SAMPLE	LCS	L6JF31AA	100	99 - 101	9/3/2010 - 9/3/2010 17:02	0246280	

Tetra Tech Middle River, MD

pH

Lab Name:	TESTAMERICA PITTSBURGH	**Method:**	SW846 9040
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C0I080000
Matrix:	WATER	**Date/Time Received:**	9/7/2010 10:15:00AM

Client Sample ID	QC Sample Type	Workorder	Recovery (%)	Control Limits (%)	Prep Date - Analysis Date/Time	QC Batch	RPD / Limit (%)
CHECK SAMPLE	LCS	L6MF91AA	100	99 - 101	9/8/2010 - 9/8/2010 08:36	0251066	0.0 / 2.0
CHECK SAMPLE	LCS	L6M411AA	100	99 - 101	9/8/2010 - 9/8/2010 14:07	0251244	0.14 / 2.0
CHECK SAMPLE	LCS	L6M6R1AA	100	99 - 101	9/8/2010 - 9/8/2010 14:27	0251252	0.0 / 2.0
DUPLICATE CHECK	LCSD	L6MF91AC	100	99 - 101	9/8/2010 - 9/8/2010 08:38	0251066	0.0 / 2.0
DUPLICATE CHECK	LCSD	L6M411AC	100	99 - 101	9/8/2010 - 9/8/2010 14:09	0251244	0.14 / 2.0
DUPLICATE CHECK	LCSD	L6M6R1AC	100	99 - 101	9/8/2010 - 9/8/2010 14:29	0251252	0.0 / 2.0

Test America Pittsburgh
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METHOD DETECTION LIMITS

Client: TETRA TECH

SDG No.: C0I020508

Analyte	Mass	MDL ug/L	CROL ug/L
ICPMS	MDL Date:	6/6/2009	
Antimony	121	0.019	2
Arsenic	75	0.29	1
Beryllium	9	0.037	1
Cadmium	111	0.114	1
Chromium	52	0.54	2
Copper	65	0.24	2
Lead	208	0.019	1
Nickel	60	0.2	1
Selenium	82	0.42	5
Silver	107	0.04	1
Thallium	205	0.015	1
Zinc	66	0.96	5

TestAmerica Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength	Reporting Limit	MDL	Date of MDL
Mercury	253.700	0.2	0.038	3/23/2009

Test America Pittsburgh

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LINEAR RANGES

Client: TETRA TECH **SDG No.:** C0I020508

Contract: **Lab Code:** STL Pitt **Case No.:** **SAS No.:**

Instrument ID: ICPMS **Date:** 8/8/2010

Analyte	LDR ug/L
Antimony	20000
Arsenic	4500
Beryllium	9000
Cadmium	13500
Chromium	13500
Copper	20000
Lead	20000
Nickel	13500
Selenium	4500
Silver	2500
Thallium	13500
Zinc	20000

TestAmerica Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	6/28/2010

Test America Pittsburgh

14 - IN

ICP-MS Tune

Lab Name: Test America Pittsburgh Contract:

Lab Code: STL Pitt Case No.: NRAS No.: SDG NO.: C0I020508

ICP-MS Instrument ID: ICPMS Date: 9/23/2010

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 5% Peak Height (amu)	%RSD
Be_9	9.06218	0.71000	0.8000
Mg_24	23.935041	0.61000	0.2030
Mg_25	24.93583	0.59000	2.0520
Mg_26	25.91259	0.59000	2.0950
Co_59	58.903189	0.69000	0.2150
In_113	112.934404	0.69000	2.3470
In_115	114.93387	0.73000	0.9730
Ce_140	139.955441	0.73000	0.4120
Pb_206	206.004457	0.65000	0.8120
Pb_207	207.005876	0.65000	0.6430
Pb_208	208.006639	0.65000	0.8660

Comments:

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: C0I020508 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C0I090000-358 **Prep Batch #...:** 0252358						
Antimony	ND	2.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AK
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AC
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AD
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AE
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**0.97 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6QWF1AF**
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	2.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AG
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AJ
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AH
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	5.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AL
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AA
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	
Thallium	**0.027 B**	**1.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6QWF1AM**
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: C0I020508 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	5.0	ug/L	SW846 6020	09/09-09/23/10	L6QWF1AN
		Dilution Factor: 1				
		Analysis Time..: 14:22		Analyst ID.....: 400149	Instrument ID..: ICP	

MB Lot-Sample #: C0I090000-362 **Prep Batch #...:** 0252362

Antimony	ND	2.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AK
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Arsenic	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AC
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Beryllium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AD
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Cadmium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AE
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Chromium	**1.2 B**	**2.0**	**ug/L**	**SW846 6020**	**09/09-09/23/10**	**L6QWT1AF**
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Copper	ND	2.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AG
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Lead	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AJ
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Nickel	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AH
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Selenium	ND	5.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AL
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Silver	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AA
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	

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METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: C0I020508 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AM
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	
Zinc	ND	5.0	ug/L	SW846 6020	09/09-09/23/10	L6QWT1AN
		Dilution Factor: 1				
		Analysis Time..: 16:41		Analyst ID.....: 400149	Instrument ID..: ICP	

MB Lot-Sample #: C0I280000-010 **Prep Batch #...:** 0271010

Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L7KK81AA
		Dilution Factor: 1				
		Analysis Time..: 07:49		Analyst ID.....: 031043	Instrument ID..: HGH	

MB Lot-Sample #: C0I280000-011 **Prep Batch #...:** 0271011

Mercury	ND	0.20	ug/L	SW846 7470A	09/28/10	L7KLA1AA
		Dilution Factor: 1				
		Analysis Time..: 08:35		Analyst ID.....: 031043	Instrument ID..: HGH	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Lot-Sample #...: C0I020508 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Antimony	95	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	95	(80 - 120)	0.33	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Arsenic	91	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	91	(80 - 120)	0.33	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Beryllium	95	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	96	(80 - 120)	0.98	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Cadmium	98	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	99	(80 - 120)	1.6	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Chromium	97	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	100	(80 - 120)	2.9	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Copper	94	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	95	(80 - 120)	0.16	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Lead	101	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	103	(80 - 120)	1.6	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Nickel	92	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	92	(80 - 120)	0.06	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Lot-Sample #...: C0I020508 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Selenium	106	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	104	(80 - 120)	1.4	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Silver	99	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	100	(80 - 120)	1.4	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Thallium	99	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	101	(80 - 120)	2.1	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Zinc	93	(80 - 120)			SW846 6020	09/09-09/23/10	0252358
	94	(80 - 120)	1.2	(0-20)	SW846 6020	09/09-09/23/10	0252358
		Dilution Factor: 1			Analysis Time..: 14:27	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Antimony	93	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	92	(80 - 120)	1.2	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Arsenic	88	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	86	(80 - 120)	2.5	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Beryllium	93	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	94	(80 - 120)	1.1	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Cadmium	96	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	94	(80 - 120)	2.0	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Lot-Sample #...: C0I020508 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	96	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	96	(80 - 120)	0.26	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Copper	92	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	92	(80 - 120)	0.17	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Lead	100	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	99	(80 - 120)	0.50	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Nickel	90	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	89	(80 - 120)	0.66	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Selenium	106	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	100	(80 - 120)	6.5	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Silver	96	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	96	(80 - 120)	0.54	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Thallium	96	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	96	(80 - 120)	0.14	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					
Zinc	90	(80 - 120)			SW846 6020	09/09-09/23/10	0252362
	90	(80 - 120)	0.93	(0-20)	SW846 6020	09/09-09/23/10	0252362
		Dilution Factor: 1			Analysis Time..: 16:45	Analyst ID.....: 400149	
		Instrument ID..: ICP					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Lot-Sample #...: C0I020508 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	92	(80 - 120)			SW846 7470A	09/28/10	0271010
	94	(80 - 120)	1.7	(0-20)	SW846 7470A	09/28/10	0271010
		Dilution Factor: 1			Analysis Time..: 07:51	Analyst ID.....: 031043	
		Instrument ID..: HGH					
Mercury	92	(80 - 120)			SW846 7470A	09/28/10	0271011
	94	(80 - 120)	2.2	(0-20)	SW846 7470A	09/28/10	0271011
		Dilution Factor: 1			Analysis Time..: 08:37	Analyst ID.....: 031043	
		Instrument ID..: HGH					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Dilution Corrected Concentrations

STD1 MET4769-10 INT STD 9/23/2010 12:17:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

STD2X MET4724-10 9/23/2010 12:22:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		92.256%	95.080%	92.624%	88.699%	91.066%	93.249%	93.377%	103.296%

STD3X MET4725-10 9/23/2010 12:26:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		96.087%	97.568%	98.001%	98.033%	98.781%	99.761%	99.505%	94.158%

ICV1 MET4728-10 9/23/2010 12:31:07 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		95.657%	97.504%	96.744%	94.086%	95.959%	97.613%	98.525%	108.819%

ICB1 9/23/2010 12:38:16 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		102.317%	104.219%	104.094%	104.848%	104.774%	104.341%	104.356%	94.720%

CRI MET4729-10 9/23/2010 12:42:35 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		100.105%	102.022%	100.594%	112.338%	101.277%	100.867%	100.908%	99.831%

ICSA MET4730-10 9/23/2010 12:46:53 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		88.944%	94.077%	93.503%	88.027%	90.558%	96.182%	96.496%	109.836%

ICSAB MET4731-10 9/23/2010 12:51:12 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		88.592%	95.095%	94.539%	89.114%	92.467%	96.948%	97.935%	93.895%

CCV1-1 MET4727-10 9/23/2010 12:58:21 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		93.898%	96.300%	99.696%	96.457%	94.610%	100.852%	101.107%	104.263%

CCB1 9/23/2010 1:02:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		103.119%	111.884%	113.102%	106.924%	107.804%	107.306%	107.707%	110.532%

L64N6B 9/23/2010 1:06:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		105.040%	107.326%	107.124%	106.495%	106.814%	106.890%	106.718%	115.221%

L64N6C 9/23/2010 1:14:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		97.966%	96.597%	96.574%	92.243%	93.736%	100.529%	100.689%	100.462%

L62RXB 9/23/2010 1:18:55 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		98.668%	98.637%	100.029%	99.038%	99.640%	102.671%	102.720%	108.432%

L62RXC 9/23/2010 1:23:10 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		99.933%	97.135%	97.029%	95.378%	95.550%	100.198%	100.020%	106.012%

L6TR2 9/23/2010 1:27:25 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		96.499%	95.782%	94.713%	90.378%	92.006%	98.691%	98.607%	99.884%

L6TR3 9/23/2010 1:31:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		98.206%	94.697%	94.516%	93.279%	93.145%	98.542%	98.607%	104.458%

L6TR8 9/23/2010 1:35:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		94.352%	92.864%	92.046%	88.121%	89.196%	96.333%	96.483%	98.521%

L6TTA 9/23/2010 1:40:12 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		93.308%	90.833%	90.518%	86.449%	87.946%	94.763%	95.107%	96.992%

L6TTAP5 9/23/2010 1:44:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		94.907%	91.661%	91.767%	90.422%	90.401%	95.793%	95.300%	99.397%

L6TTAS 9/23/2010 1:48:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.252%	89.666%	88.066%	84.606%	86.030%	93.218%	93.342%	96.009%

CCV1-2 9/23/2010 1:55:54 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		93.349%	88.375%	88.748%	80.728%	84.590%	90.661%	91.030%	91.539%

CCB2 9/23/2010 2:03:04 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		100.873%	97.560%	96.514%	96.709%	97.060%	97.990%	97.607%	100.935%

L6TTAD 9/23/2010 2:07:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		92.389%	89.695%	87.986%	84.444%	85.510%	92.354%	92.199%	94.812%

L6TTE 9/23/2010 2:11:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		92.123%	89.186%	87.324%	83.817%	84.715%	91.500%	91.700%	93.761%

L6TTF 9/23/2010 2:15:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.095%	87.035%	85.349%	82.706%	83.809%	90.804%	90.891%	92.798%

L6QWFBF 9/23/2010 2:22:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		95.271%	102.520%	94.933%	90.347%	90.617%	93.601%	93.724%	103.042%

L6QWFCF 9/23/2010 2:27:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		92.960%	88.339%	87.168%	86.372%	85.789%	91.946%	92.092%	99.595%

L6QWFLF 9/23/2010 2:31:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.657%	85.648%	85.196%	84.523%	84.411%	91.164%	91.242%	98.084%

L6GC3F 9/23/2010 2:40:05 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		82.758%	82.616%	80.750%	76.089%	78.395%	87.199%	87.819%	87.931%

L6GC3P5F 9/23/2010 2:44:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.301%	86.897%	86.319%	84.373%	85.437%	91.257%	91.082%	90.603%

L6GDGF 9/23/2010 2:48:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		85.826%	83.065%	81.365%	77.436%	79.257%	86.971%	87.209%	88.150%

L6GDHF 9/23/2010 2:52:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.962%	81.341%	80.014%	76.624%	78.137%	86.595%	86.787%	88.296%

CCV1-3 9/23/2010 3:00:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		88.574%	85.869%	86.419%	78.848%	82.383%	88.972%	88.979%	89.580%

CCB3 9/23/2010 3:07:14 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		101.584%	95.937%	94.428%	94.965%	94.644%	95.781%	95.633%	98.422%

L6GFHF 9/23/2010 3:11:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		83.143%	84.387%	81.702%	75.799%	78.670%	87.082%	87.281%	85.089%

L6GFJF 9/23/2010 3:15:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		85.128%	85.156%	82.657%	76.549%	79.227%	88.771%	88.315%	85.927%

L6GFKF 9/23/2010 3:20:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		82.431%	82.395%	80.139%	74.134%	77.305%	86.982%	86.912%	84.200%

L6HF5F 9/23/2010 3:24:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		83.561%	82.600%	80.693%	75.457%	78.376%	87.128%	86.737%	85.152%

L6HF8F 9/23/2010 3:28:39 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		81.124%	81.505%	79.653%	74.353%	76.914%	85.535%	85.389%	83.705%

L6HGDF 9/23/2010 3:32:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		81.525%	82.171%	81.085%	75.241%	78.071%	86.324%	86.267%	85.286%

L6HGEF 9/23/2010 3:37:10 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.517%	83.700%	82.866%	76.657%	79.111%	87.169%	87.376%	86.550%

L6HGFF 9/23/2010 3:41:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		83.446%	82.185%	81.169%	75.501%	77.972%	85.882%	85.768%	85.621%

L6HGHF 9/23/2010 3:45:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		86.085%	82.336%	80.565%	75.254%	77.262%	83.979%	83.995%	83.950%

L6HGJF 9/23/2010 3:49:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		85.113%	82.774%	81.369%	75.348%	77.655%	85.044%	85.182%	83.876%

CCV1-4 9/23/2010 3:57:08 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.129%	88.348%	89.174%	79.619%	82.560%	87.413%	87.223%	91.089%

CCB4 9/23/2010 4:04:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		100.018%	96.431%	95.027%	94.155%	93.283%	92.006%	91.884%	96.505%

L6HGLF 9/23/2010 4:08:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.634%	83.822%	82.444%	75.181%	77.973%	83.628%	83.909%	82.719%

L6HGNF 9/23/2010 4:12:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		82.129%	82.252%	81.007%	74.542%	76.737%	84.057%	83.973%	82.953%

L6HGVF 9/23/2010 4:17:12 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		85.980%	82.948%	80.836%	74.832%	76.917%	83.345%	82.846%	82.454%

L6HGXF 9/23/2010 4:21:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.190%	81.940%	79.772%	73.891%	76.148%	82.437%	81.877%	81.508%

L6G83F 9/23/2010 4:25:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.524%	82.045%	80.542%	74.450%	76.968%	83.033%	82.715%	82.238%

L6G84F 9/23/2010 4:30:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		82.993%	80.838%	78.993%	73.277%	75.334%	81.810%	81.249%	80.908%

L6G85F 9/23/2010 4:34:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.321%	81.289%	78.673%	72.802%	75.188%	80.057%	80.034%	80.002%

L6QWTBF 9/23/2010 4:41:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		95.382%	100.666%	96.578%	86.588%	85.466%	85.404%	85.280%	94.449%

L6QWTCF 9/23/2010 4:45:42 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		93.467%	86.892%	85.208%	83.767%	82.499%	85.459%	84.876%	92.642%

L6QWTLF 9/23/2010 4:49:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		94.357%	85.531%	84.278%	82.753%	81.473%	84.612%	84.253%	91.706%

CCV1-5 9/23/2010 4:57:06 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		88.007%	84.886%	81.932%	73.638%	78.337%	81.643%	81.624%	85.916%

CCB5 9/23/2010 5:04:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		96.542%	92.840%	89.757%	88.946%	87.771%	85.849%	85.597%	90.348%

L6HG3F 9/23/2010 5:11:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.330%	82.440%	79.036%	72.434%	74.390%	79.437%	79.057%	78.471%

L6HG3P5F 9/23/2010 5:15:44 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		91.675%	88.511%	86.476%	82.332%	83.213%	86.194%	85.902%	88.580%

L6M4HF 9/23/2010 5:20:01 PM

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		94.353%	85.590%	83.678%	82.278%	81.157%	83.378%	83.115%	90.422%

CRI-2 9/23/2010 5:27:55 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		92.261%	88.014%	85.227%	84.560%	84.146%	84.029%	83.625%	87.851%

CCV1-6 9/23/2010 5:32:12 PM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		84.944%	84.282%	80.776%	73.947%	77.302%	82.463%	82.795%	85.544%

CCB6 9/23/2010 5:39:22 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	45Sc	89Y	103Rh	115In	159Tb	165Ho	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
x		95.588%	91.627%	89.762%	88.737%	88.308%	86.213%	86.361%	91.612%

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0I020508

Initial Calibration Source: Inorganic Ventures **Instrument:** ICPMS

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1			**ICV1 MET4728-10**						
	Antimony	83.19	80.0	104.0	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Arsenic	81.69	80.0	102.1	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Beryllium	78.83	80.0	98.5	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Cadmium	81.29	80.0	101.6	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Chromium	81.35	80.0	101.7	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Copper	82.49	80.0	103.1	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Lead	80.13	80.0	100.2	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Nickel	81.43	80.0	101.8	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Selenium	83.64	80.0	104.6	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Silver	81.25	80.0	101.6	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Thallium	83.02	80.0	103.8	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
	Zinc	83.63	80.0	104.5	90.0 - 110.0	MS	9/23/2010	12:31	M00923A, gen
CCV1			**CCV1-1 MET4727-10**						
	Antimony	96.78	100.0	96.8	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Arsenic	96.84	100.0	96.8	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Beryllium	97.26	100.0	97.3	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Cadmium	99.32	100.0	99.3	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Chromium	101.10	100.0	101.1	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Copper	98.89	100.0	98.9	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Lead	102.97	100.0	103.0	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Nickel	98.70	100.0	98.7	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Selenium	97.86	100.0	97.9	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Silver	98.13	100.0	98.1	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Thallium	102.77	100.0	102.8	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen
	Zinc	100.47	100.0	100.5	90.0 - 110.0	MS	9/23/2010	12:58	M00923A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0I020508

Initial Calibration Source: Inorganic Ventures **Instrument:** ICPMS

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV2			**CCV1-2**						
	Antimony	95.87	100.0	95.9	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Arsenic	96.33	100.0	96.3	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Beryllium	96.30	100.0	96.3	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Cadmium	101.53	100.0	101.5	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Chromium	99.97	100.0	100.0	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Copper	97.51	100.0	97.5	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Lead	107.03	100.0	107.0	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Nickel	96.82	100.0	96.8	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Selenium	99.28	100.0	99.3	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Silver	102.30	100.0	102.3	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Thallium	105.63	100.0	105.6	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
	Zinc	99.83	100.0	99.8	90.0 - 110.0	MS	9/23/2010	13:55	M00923A, gen
CCV3			**CCV1-3**						
	Antimony	95.78	100.0	95.8	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Arsenic	97.04	100.0	97.0	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Beryllium	99.16	100.0	99.2	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Cadmium	101.53	100.0	101.5	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Chromium	100.51	100.0	100.5	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Copper	97.07	100.0	97.1	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Lead	106.33	100.0	106.3	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Nickel	97.46	100.0	97.5	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Selenium	99.70	100.0	99.7	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Silver	102.90	100.0	102.9	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Thallium	105.20	100.0	105.2	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen
	Zinc	98.76	100.0	98.8	90.0 - 110.0	MS	9/23/2010	15:00	M00923A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0I020508

Initial Calibration Source: Inorganic Ventures **Instrument:** ICPMS

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV4			**CCV1-4**						
	Antimony	94.07	100.0	94.1	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Arsenic	93.66	100.0	93.7	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Beryllium	97.61	100.0	97.6	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Cadmium	99.05	100.0	99.0	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Chromium	96.85	100.0	96.8	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Copper	96.28	100.0	96.3	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Lead	100.87	100.0	100.9	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Nickel	95.04	100.0	95.0	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Selenium	95.07	100.0	95.1	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Silver	100.75	100.0	100.8	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Thallium	100.50	100.0	100.5	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
	Zinc	97.07	100.0	97.1	90.0 - 110.0	MS	9/23/2010	15:57	M00923A, gen
CCV5			**CCV1-5**						
	Antimony	92.30	100.0	92.3	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Arsenic	95.16	100.0	95.2	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Beryllium	97.13	100.0	97.1	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Cadmium	97.45	100.0	97.4	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Chromium	95.57	100.0	95.6	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Copper	94.02	100.0	94.0	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Lead	99.42	100.0	99.4	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Nickel	92.65	100.0	92.6	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Selenium	98.91	100.0	98.9	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Silver	101.17	100.0	101.2	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Thallium	99.02	100.0	99.0	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen
	Zinc	96.35	100.0	96.4	90.0 - 110.0	MS	9/23/2010	16:57	M00923A, gen

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: TETRA TECH **SDG No.:** C0I020508

Initial Calibration Source: Inorganic Ventures **Instrument:** ICPMS

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV6			**CCV1-6**						
	Antimony	92.83	100.0	92.8	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Arsenic	95.00	100.0	95.0	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Beryllium	95.64	100.0	95.6	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Cadmium	97.17	100.0	97.2	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Chromium	94.24	100.0	94.2	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Copper	93.25	100.0	93.2	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Lead	98.71	100.0	98.7	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Nickel	93.78	100.0	93.8	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Selenium	98.88	100.0	98.9	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Silver	99.85	100.0	99.8	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Thallium	98.89	100.0	98.9	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen
	Zinc	95.12	100.0	95.1	90.0 - 110.0	MS	9/23/2010	17:32	M00923A, gen

Test America Pittsburgh
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CRDL STANDARD FOR AA & ICP

Client: TETRA TECH **SDG No.:** C0I020508

ICPMS Standard Source: Inorganic Ventures

Instrument: ICPMS

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
CRDL1		**CRI MET4729-10**							
	Antimony	1.89	2.0	94.5	50 - 150	MS	9/23/2010	12:42	M00923A,
	Arsenic	1.16	1.0	116.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Beryllium	1.04	1.0	104.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Cadmium	1.00	1.0	100.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Chromium	2.00	2.0	100.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Copper	2.00	2.0	100.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Lead	1.12	1.0	112.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Nickel	1.13	1.0	113.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Selenium	5.62	5.0	112.4	50 - 150	MS	9/23/2010	12:42	M00923A,
	Silver	1.33	1.0	133.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Thallium	1.15	1.0	115.0	50 - 150	MS	9/23/2010	12:42	M00923A,
	Zinc	5.15	5.0	103.0	50 - 150	MS	9/23/2010	12:42	M00923A,

Test America Pittsburgh

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0I020508

Instrument: ICPMS

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
ICB1			**ICB1**							
	Antimony	0.02	+/-2.00	U	0.02	2.00	MS	9/23/2010	12:38	M00923A, ge
	Arsenic	0.02	+/-1.00	U	0.29	1.00	MS	9/23/2010	12:38	M00923A, ge
	Beryllium	0.04	+/-1.00	J	0.04	1.00	MS	9/23/2010	12:38	M00923A, ge
	Cadmium	0.01	+/-1.00	U	0.11	1.00	MS	9/23/2010	12:38	M00923A, ge
	Chromium	-0.02	+/-2.00	U	0.54	2.00	MS	9/23/2010	12:38	M00923A, ge
	Copper	0.00	+/-2.00	U	0.24	2.00	MS	9/23/2010	12:38	M00923A, ge
	Lead	-0.02	+/-1.00	U	0.02	1.00	MS	9/23/2010	12:38	M00923A, ge
	Nickel	-0.02	+/-1.00	U	0.17	1.00	MS	9/23/2010	12:38	M00923A, ge
	Selenium	0.00	+/-5.00	U	0.42	5.00	MS	9/23/2010	12:38	M00923A, ge
	Silver	0.18	+/-1.00	J	0.04	1.00	MS	9/23/2010	12:38	M00923A, ge
	Thallium	0.00	+/-1.00	U	0.02	1.00	MS	9/23/2010	12:38	M00923A, ge
	Zinc	-0.24	+/-5.00	U	0.96	5.00	MS	9/23/2010	12:38	M00923A, ge
CCB1			**CCB1**							
	Antimony	0.86	+/-2.00	J	0.02	2.00	MS	9/23/2010	13:02	M00923A, ge
	Arsenic	0.03	+/-1.00	U	0.29	1.00	MS	9/23/2010	13:02	M00923A, ge
	Beryllium	0.03	+/-1.00	U	0.04	1.00	MS	9/23/2010	13:02	M00923A, ge
	Cadmium	0.06	+/-1.00	U	0.11	1.00	MS	9/23/2010	13:02	M00923A, ge
	Chromium	0.00	+/-2.00	U	0.54	2.00	MS	9/23/2010	13:02	M00923A, ge
	Copper	-0.06	+/-2.00	U	0.24	2.00	MS	9/23/2010	13:02	M00923A, ge
	Lead	0.00	+/-1.00	U	0.02	1.00	MS	9/23/2010	13:02	M00923A, ge
	Nickel	-0.04	+/-1.00	U	0.17	1.00	MS	9/23/2010	13:02	M00923A, ge
	Selenium	0.11	+/-5.00	U	0.42	5.00	MS	9/23/2010	13:02	M00923A, ge
	Silver	0.06	+/-1.00	J	0.04	1.00	MS	9/23/2010	13:02	M00923A, ge
	Thallium	0.04	+/-1.00	J	0.02	1.00	MS	9/23/2010	13:02	M00923A, ge
	Zinc	-0.28	+/-5.00	U	0.96	5.00	MS	9/23/2010	13:02	M00923A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0I020508

Instrument: ICPMS

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB2			CCB2							
	Antimony	0.27	+/-2.00	J	0.02	2.00	MS	9/23/2010	14:03	M00923A, ge
	Arsenic	-0.06	+/-1.00	U	0.29	1.00	MS	9/23/2010	14:03	M00923A, ge
	Beryllium	0.04	+/-1.00	U	0.04	1.00	MS	9/23/2010	14:03	M00923A, ge
	Cadmium	0.06	+/-1.00	U	0.11	1.00	MS	9/23/2010	14:03	M00923A, ge
	Chromium	0.43	+/-2.00	U	0.54	2.00	MS	9/23/2010	14:03	M00923A, ge
	Copper	-0.05	+/-2.00	U	0.24	2.00	MS	9/23/2010	14:03	M00923A, ge
	Lead	0.03	+/-1.00	J	0.02	1.00	MS	9/23/2010	14:03	M00923A, ge
	Nickel	0.01	+/-1.00	U	0.17	1.00	MS	9/23/2010	14:03	M00923A, ge
	Selenium	0.30	+/-5.00	U	0.42	5.00	MS	9/23/2010	14:03	M00923A, ge
	Silver	0.01	+/-1.00	U	0.04	1.00	MS	9/23/2010	14:03	M00923A, ge
	Thallium	0.06	+/-1.00	J	0.02	1.00	MS	9/23/2010	14:03	M00923A, ge
	Zinc	-0.20	+/-5.00	U	0.96	5.00	MS	9/23/2010	14:03	M00923A, ge
CCB3			CCB3							
	Antimony	0.26	+/-2.00	J	0.02	2.00	MS	9/23/2010	15:07	M00923A, ge
	Arsenic	-0.04	+/-1.00	U	0.29	1.00	MS	9/23/2010	15:07	M00923A, ge
	Beryllium	0.06	+/-1.00	J	0.04	1.00	MS	9/23/2010	15:07	M00923A, ge
	Cadmium	0.01	+/-1.00	U	0.11	1.00	MS	9/23/2010	15:07	M00923A, ge
	Chromium	0.44	+/-2.00	U	0.54	2.00	MS	9/23/2010	15:07	M00923A, ge
	Copper	-0.04	+/-2.00	U	0.24	2.00	MS	9/23/2010	15:07	M00923A, ge
	Lead	0.04	+/-1.00	J	0.02	1.00	MS	9/23/2010	15:07	M00923A, ge
	Nickel	-0.04	+/-1.00	U	0.17	1.00	MS	9/23/2010	15:07	M00923A, ge
	Selenium	0.27	+/-5.00	U	0.42	5.00	MS	9/23/2010	15:07	M00923A, ge
	Silver	-0.01	+/-1.00	U	0.04	1.00	MS	9/23/2010	15:07	M00923A, ge
	Thallium	0.06	+/-1.00	J	0.02	1.00	MS	9/23/2010	15:07	M00923A, ge
	Zinc	-0.25	+/-5.00	U	0.96	5.00	MS	9/23/2010	15:07	M00923A, ge

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH **SDG No.:** C0I020508

Instrument: ICPMS

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB4			CCB4							
	Antimony	0.28	+/-2.00	J	0.02	2.00	MS	9/23/2010	16:04	M00923A, ge
	Arsenic	0.19	+/-1.00	U	0.29	1.00	MS	9/23/2010	16:04	M00923A, ge
	Beryllium	0.02	+/-1.00	U	0.04	1.00	MS	9/23/2010	16:04	M00923A, ge
	Cadmium	0.01	+/-1.00	U	0.11	1.00	MS	9/23/2010	16:04	M00923A, ge
	Chromium	0.66	+/-2.00	J	0.54	2.00	MS	9/23/2010	16:04	M00923A, ge
	Copper	0.03	+/-2.00	U	0.24	2.00	MS	9/23/2010	16:04	M00923A, ge
	Lead	0.04	+/-1.00	J	0.02	1.00	MS	9/23/2010	16:04	M00923A, ge
	Nickel	0.01	+/-1.00	U	0.17	1.00	MS	9/23/2010	16:04	M00923A, ge
	Selenium	0.54	+/-5.00	J	0.42	5.00	MS	9/23/2010	16:04	M00923A, ge
	Silver	-0.01	+/-1.00	U	0.04	1.00	MS	9/23/2010	16:04	M00923A, ge
	Thallium	0.03	+/-1.00	J	0.02	1.00	MS	9/23/2010	16:04	M00923A, ge
	Zinc	-0.19	+/-5.00	U	0.96	5.00	MS	9/23/2010	16:04	M00923A, ge
CCB5			CCB5							
	Antimony	0.35	+/-2.00	J	0.02	2.00	MS	9/23/2010	17:04	M00923A, ge
	Arsenic	0.14	+/-1.00	U	0.29	1.00	MS	9/23/2010	17:04	M00923A, ge
	Beryllium	0.02	+/-1.00	U	0.04	1.00	MS	9/23/2010	17:04	M00923A, ge
	Cadmium	0.00	+/-1.00	U	0.11	1.00	MS	9/23/2010	17:04	M00923A, ge
	Chromium	0.69	+/-2.00	J	0.54	2.00	MS	9/23/2010	17:04	M00923A, ge
	Copper	-0.01	+/-2.00	U	0.24	2.00	MS	9/23/2010	17:04	M00923A, ge
	Lead	0.03	+/-1.00	J	0.02	1.00	MS	9/23/2010	17:04	M00923A, ge
	Nickel	0.10	+/-1.00	U	0.17	1.00	MS	9/23/2010	17:04	M00923A, ge
	Selenium	0.36	+/-5.00	U	0.42	5.00	MS	9/23/2010	17:04	M00923A, ge
	Silver	0.01	+/-1.00	U	0.04	1.00	MS	9/23/2010	17:04	M00923A, ge
	Thallium	0.09	+/-1.00	J	0.02	1.00	MS	9/23/2010	17:04	M00923A, ge
	Zinc	-0.21	+/-5.00	U	0.96	5.00	MS	9/23/2010	17:04	M00923A, ge

Test America Pittsburgh
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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: TETRA TECH

SDG No.: C0I020508

Instrument: ICPMS

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
CCB6			CCB6							
	Antimony	0.32	+/-2.00	J	0.02	2.00	MS	9/23/2010	17:39	M00923A, ge
	Arsenic	0.28	+/-1.00	U	0.29	1.00	MS	9/23/2010	17:39	M00923A, ge
	Beryllium	0.02	+/-1.00	U	0.04	1.00	MS	9/23/2010	17:39	M00923A, ge
	Cadmium	0.02	+/-1.00	U	0.11	1.00	MS	9/23/2010	17:39	M00923A, ge
	Chromium	0.57	+/-2.00	J	0.54	2.00	MS	9/23/2010	17:39	M00923A, ge
	Copper	-0.02	+/-2.00	U	0.24	2.00	MS	9/23/2010	17:39	M00923A, ge
	Lead	0.05	+/-1.00	J	0.02	1.00	MS	9/23/2010	17:39	M00923A, ge
	Nickel	0.20	+/-1.00	J	0.17	1.00	MS	9/23/2010	17:39	M00923A, ge
	Selenium	0.27	+/-5.00	U	0.42	5.00	MS	9/23/2010	17:39	M00923A, ge
	Silver	0.01	+/-1.00	U	0.04	1.00	MS	9/23/2010	17:39	M00923A, ge
	Thallium	0.04	+/-1.00	J	0.02	1.00	MS	9/23/2010	17:39	M00923A, ge
	Zinc	-0.17	+/-5.00	U	0.96	5.00	MS	9/23/2010	17:39	M00923A, ge

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INTERFERENCE CHECK SAMPLE

Client: TETRA TECH **SDG No.:** C0I020508

ICS Source: Inorganic Ventures **Instrument ID:** ICPMS

Sample ID Analyte	WL/Mass	Result ug/L	Qual	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA MET4730-10									
Antimony	121Sb	0				-6.0 - 6.0	9/23/2010	12:46	M00923A, g
Arsenic	75As	0				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Beryllium	9Be	0				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Cadmium	111Cd	1				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Chromium	52Cr	0				-6.0 - 6.0	9/23/2010	12:46	M00923A, g
Copper	65Cu	2				-6.0 - 6.0	9/23/2010	12:46	M00923A, g
Lead	208Pb	0				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Nickel	60Ni	1				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Selenium	82Se	0				-15.0 - 15.0	9/23/2010	12:46	M00923A, g
Silver	107Ag	2				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Thallium	205Tl	0				-3.0 - 3.0	9/23/2010	12:46	M00923A, g
Zinc	66Zn	4				-15.0 - 15.0	9/23/2010	12:46	M00923A, g
ICSAB MET4731-10									
Antimony	121Sb	20.21		20	101.0	80 - 120%	9/23/2010	12:51	M00923A, g
Arsenic	75As	20.36		20	101.8	80 - 120%	9/23/2010	12:51	M00923A, g
Beryllium	9Be	19.86		20	99.3	80 - 120%	9/23/2010	12:51	M00923A, g
Cadmium	111Cd	20.23		20	101.2	80 - 120%	9/23/2010	12:51	M00923A, g
Chromium	52Cr	19.11		20	95.6	80 - 120%	9/23/2010	12:51	M00923A, g
Copper	65Cu	21.12		20	105.6	80 - 120%	9/23/2010	12:51	M00923A, g
Lead	208Pb	22.26		20	111.3	80 - 120%	9/23/2010	12:51	M00923A, g
Nickel	60Ni	20.05		20	100.2	80 - 120%	9/23/2010	12:51	M00923A, g
Selenium	82Se	50.07		50	100.1	80 - 120%	9/23/2010	12:51	M00923A, g
Silver	107Ag	21.64		20	108.2	80 - 120%	9/23/2010	12:51	M00923A, g
Thallium	205Tl	21.56		20	107.8	80 - 120%	9/23/2010	12:51	M00923A, g
Zinc	66Zn	24.61		25	98.4	80 - 120%	9/23/2010	12:51	M00923A, g

Test America Pittsburgh

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0I020508

Sample ID: L6GC3F **Serial Dilution ID:** PW-01 0-6"LF **Client ID:** PW-01 0-6"LF

Batch Number: **Prep Date:** **Matrix:** WATER

Initial Wt/Vol: 50.00 **Final Vol:** 50.0

% Solids: 0.0 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result ug/L	C	Init Date/Time	SD Dil	Serial Result ug/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	0.745	J	9/23/2010 14:40	5	0.745	J	9/23/2010 14:44	0.0		10.00 %
Arsenic	1	1.225		9/23/2010 14:40	5	1.454	U	9/23/2010 14:44	100.0		10.00 %
Beryllium	1	0.057	J	9/23/2010 14:40	5	0.184	U	9/23/2010 14:44	100.0		10.00 %
Cadmium	1	10.000		9/23/2010 14:40	5	9.855		9/23/2010 14:44	1.4		10.00 %
Chromium	1	6.273		9/23/2010 14:40	5	9.585	J	9/23/2010 14:44	52.8		10.00 %
Copper	1	4.658		9/23/2010 14:40	5	4.130	J	9/23/2010 14:44	11.3		10.00 %
Lead	1	1.167		9/23/2010 14:40	5	1.145	J	9/23/2010 14:44	1.9		10.00 %
Nickel	1	6.820		9/23/2010 14:40	5	7.380		9/23/2010 14:44	8.2		10.00 %
Selenium	1	2.589	J	9/23/2010 14:40	5	3.410	J	9/23/2010 14:44	31.7		10.00 %
Silver	1	0.036	U	9/23/2010 14:40	5	0.181	U	9/23/2010 14:44			10.00 %
Thallium	1	0.148	J	9/23/2010 14:40	5	0.400	J	9/23/2010 14:44	170.3		10.00 %
Zinc	1	38.890		9/23/2010 14:40	5	95.300		9/23/2010 14:44	145.1		10.00 %

All <50x MDL

Test America Pittsburgh

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SERIAL DILUTION SAMPLE SUMMARY

Client: TETRA TECH **SDG No.:** C0I020508

Sample ID: L6HG3F **Serial Dilution ID:** PW-07 18-30"LF **Client ID:** PW-07 18-30"LF

Batch Number: **Prep Date:** **Matrix:** WATER

Initial Wt/Vol: 50.00 **Final Vol:** 50.0

% Solids: 0.0 **Instrument:** ICPMS

Analyte	Init Dil	Initial Result ug/L	C	Init Date/Time	SD Dil	Serial Result ug/L	C	SD Date/Time	% Diff	Qual	SD Limits
Antimony	1	1.474	J	9/23/2010 17:11	5	0.955	J	9/23/2010 17:15	35.2	E	10.00 %
Arsenic	1	6.416		9/23/2010 17:11	5	4.105	J	9/23/2010 17:15	36.0		10.00 %
Beryllium	1	0.049	J	9/23/2010 17:11	5	0.184	U	9/23/2010 17:15	100.0		10.00 %
Cadmium	1	0.114	U	9/23/2010 17:11	5	0.572	U	9/23/2010 17:15			10.00 %
Chromium	1	13.650		9/23/2010 17:11	5	18.255		9/23/2010 17:15	33.7		10.00 %
Copper	1	1.610	J	9/23/2010 17:11	5	1.700	J	9/23/2010 17:15	5.6		10.00 %
Lead	1	0.188	J	9/23/2010 17:11	5	0.096	U	9/23/2010 17:15	100.0		10.00 %
Nickel	1	1.078		9/23/2010 17:11	5	1.180	J	9/23/2010 17:15	9.5		10.00 %
Selenium	1	5.706		9/23/2010 17:11	5	5.505	J	9/23/2010 17:15	3.5		10.00 %
Silver	1	0.036	U	9/23/2010 17:11	5	0.181	U	9/23/2010 17:15			10.00 %
Thallium	1	0.039	J	9/23/2010 17:11	5	0.076	U	9/23/2010 17:15	100.0		10.00 %
Zinc	1	2.427	J	9/23/2010 17:11	5	4.805	U	9/23/2010 17:15	100.0		10.00 %

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standar

Instrument: CVAA **Units:** ug/L

Chart Number: G00928A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** MET4985-10

Element	WL/ Mass	True Conc	ICV6-1 9/28/2010 7:41 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.40	**96.0**								

5.11.0 *Form 2A Equivalent*

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA **Units:** ug/L

Chart Number: G00928A.PRN **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** MET4987-10

Element	WL/ Mass	True Conc	CCV6-1 9/28/2010 7:45 AM Found	% Rec	CCV6-2 9/28/2010 8:06 AM Found	% Rec	CCV6-3 9/28/2010 8:26 AM Found	% Rec	CCV6-4 9/28/2010 8:47 AM Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.91	**98.2**	4.93	**98.6**	4.78	**95.6**	4.73	**94.6**		

TestAmerica Pittsburgh

Metals Data Reporting Form

Contract Required Detection Limit Standard

Instrument: CVAA **Units:** ug/L

Chart Number: G00928A.PRN **Acceptable Range:** 50% - 150%

Standard Source: Ultra **Standard ID:** MET4986-10

Element	WL/ Mass	True Conc	CRA/RLV 9/28/2010 7:44 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	0.2	0.18	**91.5**								

5.11.0 *Form 2B Equivalent*

TestAmerica Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: G00928A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 9/28/2010 7:42 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U								

5.11.0

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

TestAmerica Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: CVAA **Units:** ug/L

Chart Number: G00928A.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 9/28/2010 7:47 AM Found	Q	CCB2 9/28/2010 8:08 AM Found	Q	CCB3 9/28/2010 8:28 AM Found	Q	CCB4 9/28/2010 8:49 AM Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U	0.0	U	0.0	U	0.0	U		

5.11.0

U Result is less than the IDL

B Result is between IDL and RL

Form 3 Equivalent

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**November 2, 2010**
FROM:	**MEGAN CARSON**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION- VOC LOCKHEED MIDDLE RIVER CENTER SDG C0I080421**		

SAMPLES: 15/Water/

CPC-PW-VOC-1	CPC-SW-VOC-1	DHC-PW-VOC-1
DHC-PW-VOC-2	DHC-PW-VOC-3	DHC-PW-VOC-4
DHC-PW-VOC-5	DHC-SW-VOC-1	DHC-SW-VOC-2
DHC-SW-VOC-3	DHC-SW-VOC-4	DHC-SW-VOC-5
DHC-SW-VOC-6	DHC-SW-VOC-7	DHC-SW-VOC-DUP

Overview

The sample set for Middle River Complex, SDG C0I080421, consists of fifteen (15) aqueous environmental samples. This SDG contained one field duplicate pair: DHC-SW-VOC-DUP/ DHC-SW-VOC-7.

All samples were analyzed for volatile organic compounds (VOC). The samples were collected by Tetra Tech NUS on September 1st, 2nd, and 3rd, 2010 and analyzed by Test America. VOC analyses were performed by method 8260B.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial and continuing calibration results, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, matrix spike/ matrix spike duplicate recoveries, laboratory control standard recoveries, detection limits, compound quantitation, field duplicate precision and compound identification. Areas of concern with respect to data quality are listed below.

Areas of concern with respect to data quality are listed below.

Major Problems –

- The initial calibration analyzed on 9/13/10 had a relative response factor (RRF) < 0.05 for tert-butyl alcohol. All samples in the SDG were affected. Non-detect results were qualified as rejected (UR).
- The continuing calibration analyzed on 9/15/10 had a relative response factor (RRF) < 0.05 for tert-butyl alcohol. All samples in the SDG were affected. Non-detect results were qualified as rejected (UR).

Minor Problems-

- The initial calibration analyzed on 9/13/10 had a relative percent difference > 15% but <50% for acetone. All samples in the SDG were affected. Positive acetone results were qualified as estimated (J). Non-detects were not qualified because the percent difference was <50%.
- Positive results greater than the method detection limit but less than the reporting limit were

qualified as estimated (J).

Notes

LCS percent recovery report only included 1,1-dichloroethene, trichloroethene, benzene, toluene, and chlorobenzene.

No MS/MSD was performed on a sample from this SDG.

Executive Summary

Laboratory Performance: tert-butyl alcohol was rejected in all samples because of a low RRF. Calibration noncompliances for acetone resulted in the qualification of positive results.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	CPC-PW-VOC-1			CPC-SW-VOC-1			DHC-PW-VOC-1			DHC-PW-VOC-2		
SDG: C0I080421	LAB_ID	C0I080421011			C0I080421012			C0I080421001			C0I080421003		
FRACTION: OV	SAMP_DATE	9/2/2010			9/2/2010			9/1/2010			9/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		3.3	J	P	0.65	J	P	1.6	J	P	7.5		
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.56	J	P
ACETONE		26	J	C	1.1	U		4	J	CP	27	J	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CARBON DISULFIDE		0.95	J	P	0.13	U		0.13	U		0.53	J	P

PROJ_NO: 02903	NSAMPLE	DHC-PW-VOC-3			DHC-PW-VOC-4			DHC-PW-VOC-5			DHC-SW-VOC-1		
SDG: C0I080421	LAB_ID	C0I080421009			C0I080421005			C0I080421007			C0I080421002		
FRACTION: OV	SAMP_DATE	9/2/2010			9/2/2010			9/2/2010			9/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		4	J	P	2	J	P	6.1			0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		15	J	C	11	J	C	15	J	C	2.3	J	CP
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CARBON DISULFIDE		0.89	J	P	0.4	J	P	0.13	U		0.13	U	

PROJ_NO: 02903	NSAMPLE	DHC-SW-VOC-2			DHC-SW-VOC-3			DHC-SW-VOC-4			DHC-SW-VOC-5		
SDG: C0I080421	LAB_ID	C0I080421004			C0I080421010			C0I080421006			C0I080421008		
FRACTION: OV	SAMP_DATE	9/1/2010			9/2/2010			9/2/2010			9/2/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		4.8	J	CP	11	J	C	12	J	C	5.8	J	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	

PROJ_NO: 02903	NSAMPLE	DHC-SW-VOC-6			DHC-SW-VOC-7			DHC-SW-VOC-DUP		
SDG: C0I080421	LAB_ID	C0I080421014			C0I080421013			C0I080421015		
FRACTION: OV	SAMP_DATE	9/3/2010			9/3/2010			9/3/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF							DHC-SW-VOC-7		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		5.1	J	C	7.8	J	C
BENZENE		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U	
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U	

PROJ_NO: 02903	NSAMPLE	CPC-PW-VOC-1			CPC-SW-VOC-1			DHC-PW-VOC-1			DHC-PW-VOC-2		
SDG: C0I080421	LAB_ID	C0I080421011			C0I080421012			C0I080421001			C0I080421003		
FRACTION: OV	SAMP_DATE	9/2/2010			9/2/2010			9/1/2010			9/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.29	J	P	0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		1.7		
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.43	J	P
TOLUENE		0.13	U		0.13	U		0.13	U		0.68	J	P
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.88	J	P	0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 02903	NSAMPLE	DHC-PW-VOC-3			DHC-PW-VOC-4			DHC-PW-VOC-5			DHC-SW-VOC-1		
SDG: C0I080421	LAB_ID	C0I080421009			C0I080421005			C0I080421007			C0I080421002		
FRACTION: OV	SAMP_DATE	9/2/2010			9/2/2010			9/2/2010			9/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.34	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 02903	NSAMPLE	DHC-SW-VOC-2			DHC-SW-VOC-3			DHC-SW-VOC-4			DHC-SW-VOC-5		
SDG: C0I080421	LAB_ID	C0I080421004			C0I080421010			C0I080421006			C0I080421008		
FRACTION: OV	SAMP_DATE	9/1/2010			9/2/2010			9/2/2010			9/2/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 02903	NSAMPLE	DHC-SW-VOC-6			DHC-SW-VOC-7			DHC-SW-VOC-DUP		
SDG: C0I080421	LAB_ID	C0I080421014			C0I080421013			C0I080421015		
FRACTION: OV	SAMP_DATE	9/3/2010			9/3/2010			9/3/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF							DHC-SW-VOC-7		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-011	**Work Order #...:** L6MNP1AA	**Matrix.....:** WATER
Date Sampled...: 09/02/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 15:04	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**26**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**3.3 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**0.95 J**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-011 Work Order #...: L6MNP1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-011 Work Order #...: L6MNP1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-012	**Work Order #...:** L6MNQ1AA	**Matrix.....:** WATER
Date Sampled...: 09/02/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 18:50	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
Acetone	ND	5.0	ug/L	1.1
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**0.65 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11

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Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-012 **Work Order #...:** L6MNQ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-012 Work Order #...: L6MNQ1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-001	**Work Order #...:** L6MM81AA	**Matrix.....:** WATER
Date Sampled...: 09/01/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 10:56	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**4.0 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**1.6 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	**0.29 J**	**1.0**	**ug/L**	**0.17**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-001 **Work Order #...:** L6MM81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	**0.88 J**	**1.0**	**ug/L**	**0.17**
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-001 Work Order #...: L6MM81AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-003	**Work Order #...:** L6MNC1AA	**Matrix.....:** WATER
Date Sampled...: 09/01/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 11:41	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**27**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**7.5**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**0.53 J**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	**0.56 J**	**5.0**	**ug/L**	**0.32**
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-003 **Work Order #...:** L6MNC1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	**1.7**	**1.0**	**ug/L**	**0.33**
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	**0.43 J**	**1.0**	**ug/L**	**0.29**
Toluene	**0.68 J**	**1.0**	**ug/L**	**0.13**
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-003 Work Order #...: L6MNC1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...:	C0I080421-009	**Work Order #...:**	L6MNM1AA	**Matrix.....:**	WATER
Date Sampled...:	09/02/10	**Date Received..:**	09/04/10	**MS Run #.....:**	0259092
Prep Date.....:	09/15/10	**Analysis Date..:**	09/15/10		
Prep Batch #...:	0259157	**Analysis Time..:**	14:19		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	043582	**Instrument ID..:**	UX11		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**15**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**4.0 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**0.89 J**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0I080421-009 Work Order #...: L6MNM1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0I080421-009 Work Order #...: L6MNM1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-4

GC/MS Volatiles

Lot-Sample #...: C0I080421-005	**Work Order #...:** L6MNF1AA	**Matrix.....:** WATER
Date Sampled...: 09/02/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 12:49	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**11**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**2.0 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	**0.40 J**	**1.0**	**ug/L**	**0.13**
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	**0.34 J**	**1.0**	**ug/L**	**0.17**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-4

GC/MS Volatiles

Lot-Sample #...: C0I080421-005 Work Order #...: L6MNF1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-4

GC/MS Volatiles

Lot-Sample #...: C0I080421-005 Work Order #...: L6MNF1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-5

GC/MS Volatiles

Lot-Sample #...: C0I080421-007	**Work Order #...:** L6MNK1AA	**Matrix.....:** WATER
Date Sampled...: 09/02/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 13:34	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**15**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**6.1**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-PW-VOC-5

GC/MS Volatiles

Lot-Sample #...: C0I080421-007 Work Order #...: L6MNK1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-002	**Work Order #...:** L6MNA1AA	**Matrix.....:** WATER
Date Sampled...: 09/01/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 11:19	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Acetone	**2.3 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-002 **Work Order #...:** L6MNA1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-1

GC/MS Volatiles

Lot-Sample #...: C0I080421-002 Work Order #...: L6MNA1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-004	**Work Order #...:** L6MNE1AA	**Matrix.....:** WATER	
Date Sampled...: 09/01/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092	
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10		
Prep Batch #...: 0259157	**Analysis Time..:** 12:04		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
Analyst ID.....: 043582	**Instrument ID..:** UX11		
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**4.8 J**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-004 Work Order #...: L6MNE1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0I080421-004 Work Order #...: L6MNE1AA Matrix.....: WATER

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-3

GC/MS Volatiles

Lot-Sample #...:	C0I080421-010	**Work Order #...:**	L6MNN1AA	**Matrix.....:**	WATER
Date Sampled...:	09/02/10	**Date Received..:**	09/04/10	**MS Run #.....:**	0259092
Prep Date.....:	09/15/10	**Analysis Date..:**	09/15/10		
Prep Batch #...:	0259157	**Analysis Time..:**	14:42		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	043582	**Instrument ID..:**	UX11		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**11**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0I080421-010 Work Order #...: L6MNN1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-4

GC/MS Volatiles

Lot-Sample #...: C0I080421-006	**Work Order #...:** L6MNH1AA	**Matrix.....:** WATER	
Date Sampled...: 09/02/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092	
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10		
Prep Batch #...: 0259157	**Analysis Time..:** 13:12		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
Analyst ID.....: 043582	**Instrument ID..:** UX11		
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**12**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-4

GC/MS Volatiles

Lot-Sample #...: C0I080421-006 Work Order #...: L6MNH1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-5

GC/MS Volatiles

Lot-Sample #...:	C0I080421-008	**Work Order #...:**	L6MNL1AA	**Matrix.....:**	WATER
Date Sampled...:	09/02/10	**Date Received..:**	09/04/10	**MS Run #.....:**	0259092
Prep Date.....:	09/15/10	**Analysis Date..:**	09/15/10		
Prep Batch #...:	0259157	**Analysis Time..:**	13:57		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	043582	**Instrument ID..:**	UX11		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**5.8**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-5

GC/MS Volatiles

Lot-Sample #...: C0I080421-008 **Work Order #...:** L6MNL1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-6

GC/MS Volatiles

Lot-Sample #...: C0I080421-014	**Work Order #...:** L6MNV1AA	**Matrix.....:** WATER
Date Sampled...: 09/03/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 16:12	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	1.1
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-6

GC/MS Volatiles

Lot-Sample #...: C0I080421-014 **Work Order #...:** L6MNV1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-7

GC/MS Volatiles

Lot-Sample #...: C0I080421-013	**Work Order #...:** L6MNT1AA	**Matrix.....:** WATER
Date Sampled...: 09/03/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 15:50	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**5.1**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-7

GC/MS Volatiles

Lot-Sample #...: C0I080421-013 Work Order #...: L6MNT1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-DUP

GC/MS Volatiles

Lot-Sample #...: C0I080421-015	**Work Order #...:** L6MNW1AA	**Matrix.....:** WATER
Date Sampled...: 09/03/10	**Date Received..:** 09/04/10	**MS Run #.....:** 0259092
Prep Date.....: 09/15/10	**Analysis Date..:** 09/15/10	
Prep Batch #...: 0259157	**Analysis Time..:** 16:35	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX11	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**7.8**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: DHC-SW-VOC-DUP

GC/MS Volatiles

Lot-Sample #...: C0I080421-015 Work Order #...: L6MNW1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0I080421

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on September 4, 2010. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Volatiles:
TestAmerica's North Canton laboratory performed the VOA analysis. All data is included in the package.

412 963-2435

METHODS SUMMARY

C0I080421

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0I080421

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6MM8	001	DHC-PW-VOC-1	09/01/10	13:45
L6MNA	002	DHC-SW-VOC-1	09/01/10	13:55
L6MNC	003	DHC-PW-VOC-2	09/01/10	15:44
L6MNE	004	DHC-SW-VOC-2	09/01/10	15:55
L6MNF	005	DHC-PW-VOC-4	09/02/10	09:50
L6MNH	006	DHC-SW-VOC-4	09/02/10	10:02
L6MNK	007	DHC-PW-VOC-5	09/02/10	10:20
L6MNL	008	DHC-SW-VOC-5	09/02/10	11:20
L6MNM	009	DHC-PW-VOC-3	09/02/10	12:25
L6MNN	010	DHC-SW-VOC-3	09/02/10	12:29
L6MNP	011	CPC-PW-VOC-1	09/02/10	16:42
L6MNQ	012	CPC-SW-VOC-1	09/02/10	16:45
L6MNT	013	DHC-SW-VOC-7	09/03/10	08:15
L6MNV	014	DHC-SW-VOC-6	09/03/10	08:00
L6MNW	015	DHC-SW-VOC-DUP	09/03/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TetraTech NUS	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154250
Address: 20251 Century Blvd ste 2000	Telephone Number (Area Code)/Fax Number: 301 528 3022	Lab Number:	Page 1 of 2
City: German Town; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact: Veronica Bortot		
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed): 8260 VOC; 8270C SIM

Special Instructions/Conditions of Receipt: VOCs by 8260; 1,4 dioxane by 8270C SIM

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOC	8270C SIM	Special Instructions/Conditions of Receipt
DHC-PW-VOC-1	9/1/10	1345		X						X			X	X	
DHC-SW-VOC-1	"	1355		X						X			X	X	
DHC-PW-VOC-2	"	1544		X						X			X	X	only 1 vial collected
DHC-SW-VOC-2	"	1555		X						X			X	X	
DHC-PW-VOC-4	9/2/10	950		X						X			X	X	
DHC-SW-VOC-4	"	1002		X						X			X	X	
DHC-PW-VOC-5	"	1020		X						X			X	X	only 1 vial collected
DHC-SW-VOC-5	"	1120		X						X			X	X	
DHC-PW-VOC-3	"	1225		X						X			X	X	
DHC-Pens SW-VOC-3	"	1229		X						X			X	X	
CPC-PW-VOC-1	"	1642		X						X			X	X	only 1 vial collected
CPC-SW-VOC-1	"	1645		X						X			X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Rick Samuels	9/2/10	1853	1. Received By: [signature]	9/3/10	1430
2. Relinquished By: [signature]	9/3/10	1600	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	9/4/10	10:00

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

[redacted]

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech NUS	Project Manager: Mike Martin	Date: 9-3-10	Chain of Custody Number: 114514
Address: 20251 Century Blvd Ste 200	Telephone Number (Area Code)/Fax Number: (301) 528-5552	Lab Number:	Page 2 of 2
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact: Veronica Bontat		
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOCs	Special Instructions/ Conditions of Receipt
DHC-SW-VOC-7	9-3-10	0815		X						2			X	
DHC-SW-VOC-6	9-3-10	0800		X						2			X	
DHC-SW-VOC-DUP	9-3-10	0000		X						2			X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	9-3-10	0822	1. Received By: [signature]	9/3/10	1430
2. Relinquished By: [signature]	9/3/10	1600	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	9/4/10	10 00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

MIDDLE RIVER CENTER
WATER DATA
C0I080421

FRACTION	CHEMICAL	DHC-SW-VOC-DUP	UNITS	DHC-SW-VOC-7	RPD	D
OV	ACETONE	7.8 J	UG/L	5.1 J	41.86	2.70

No Qual
Both <2xRL

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2196.D
Report Date: 16-Sep-2010 09:44

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/8260B

Data file : \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2196.D
Lab Smp Id: L6MNC1AA Client Smp ID: DHC-PW-VOC-2
Inj Date : 15-SEP-2010 11:41
Operator : 43582 Inst ID: a3ux11.i
Smp Info : L6MNC1AA,5ML/5ML
Misc Info : J00915A,8260LLUX11,,43582
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\8260LLUX11.m
Meth Date : 15-Sep-2010 09:09 a3ux11.i Quant Type: ISTD
Cal Date : 05-AUG-2010 18:19 Cal File: UXJ1313.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

$\frac{487096}{1706507} \times \frac{50}{0.10782} \times 1DF \times \frac{1}{5mL} = 26.4$ ug/L reported as 27 ug/L

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	5.354	5.354	(1.000)	1706507	50.0000	
* 2 Chlorobenzene-d5	117	8.040	8.040	(1.000)	1266072	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	10.288	10.288	(1.000)	554138	50.0000	
$ 4 Dibromofluoromethane	113	4.774	4.774	(0.892)	426959	40.8816	8.176
$ 5 1,2-Dichloroethane-d4	65	5.058	5.058	(0.945)	513385	38.5217	7.704
$ 6 Toluene-d8	98	6.727	6.726	(0.837)	1949858	42.2726	8.454
$ 7 Bromofluorobenzene	95	9.152	9.152	(1.138)	748055	47.3577	9.472
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	Compound Not Detected.					
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	2.952	2.952	(0.551)	487096	133.327	26.665
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					
19 Iodomethane	142	Compound Not Detected.					
20 Carbon Disulfide	76	3.153	3.153	(0.589)	91246	2.67267	0.5345
21 Methylene Chloride	84	3.366	3.366	(0.629)	107021	8.49018	1.698

TestAmerica Pittsburgh

Cooler Receipt Form

Client: TETRA TECH Project: _____ Quote: 86823

Cooler Rec'd & Opened for Temp. Check on: 9/4/10

Coolers Opened and Unpacked on: 9/4/10 By: JC (Signature)

TestAmerica Pittsburgh Lot Number: C01080421

		Yes	No	NA
1.	Were custody seals on the outside of the cooler?	✓		
	If YES, how many and where? Quantity 1 Location F			
	Were signatures and date correct?	✓		
2.	Were custody papers included inside the cooler?	✓		
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓		
4.	Did you sign the custody papers in the appropriate place?	✓		
5.	Was shippers packing slip attached to this form?	✓		
6.	Were packing materials used?	✓		
	If YES, what type? BUBBLE BAGS			
7.	Were the samples received within the acceptable temperature range?	✓		
8.	Were the samples appropriately preserved?	✓		
9.	Were all bottles sealed in separate plastic bags?	✓		
10.	Did all bottles arrive in good condition (unbroken)?	✓		
11.	Were all bottle labels complete (sample ID, preservatives, etc.)?	✓		
12.	Did all bottle labels and/or tags agree with custody papers?	✓		
13.	Were correct bottles used for tests indicated?	✓		
14.	Were all VOA vials checked for the presence of air bubbles?	✓		
15.	Was a sufficient amount of sample sent in each bottle?	✓		

16. Samples received by: (FEDEX) UPS CLIENT DROP-OFF OTHER DHL US CARGO

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Rev. 1, 01/20/2010
X:\Forms\Cooler Receipt Form_updated 102010.DOC

TestAmerica Pittsburgh

Cooler Receipt Form

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	hardness PH<2	Residual CL	
										ALL VIALS				
										PRES W/HCl				

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

_____

_____

Cooler Number	Temperature*	Thermometer ID
1	2.6	7

*Acceptable Temperature Range: < 0-6 °C

Sample	Lot Number**

**Please use an asterisk if bottle lot number was covered by the label

If samples required preservation in the laboratory, the following lot number(s) was/were used:

Nitric Acid _____ Hydrochloric Acid _____

Sulfuric Acid _____ Sodium Hydroxide _____

X:\Forms\Cooler Receipt Form_updated 102010.DOC
Rev. 1, 01/20/2010

C0I080421

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client: TetraTech NUS	Project Manager: Mike Martin	Date:	Chain of Custody Number: 154250
Address: 20251 Century Blvd ste 200	Telephone Number (Area Code)/Fax Number: 301 528 3022	Lab Number:	Page 1 of 2
City: German Town / State: MD / Zip Code: 20874	Site Contact: Tony Hammerye	Lab Contact: Veronica Bartot	
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260 VOC	8270C SIM	Not analyzed per AM	Special Instructions/ Conditions of Receipt
DHC-PW-VOC-1	9/1/10	1345		X						X			X	X		VOCs by 8260
DHC-SW-VOC-1	"	1355		X						X			X	X		
DHC-PW-VOC-2	"	1544		X						X			X	X		only 1 vial collected
DHC-SW-VOC-2	"	1555		X						X			X	X		
DHC-PW-VOC-4	9/2/10	950		X						X			X	X		
DHC-SW-VOC-4	"	1002		X						X			X	X		
DHC-PW-VOC-5	"	1020		X						X			X	X		only 1 vial collected
DHC-SW-VOC-5	"	1120		X						X			X	X		
DHC-PW-VOC-3	"	1225		X						X			X	X		
DHC-Plenus SW-VOC-3	"	1229		X						X			X	X		
CPC-PW-VOC-1	"	1642		X						X			X	X		only 1 vial collected
CPC-SW-VOC-1	"	1645		X						X			X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

1. Relinquished By: Rick Samuels	Date: 9/2/10	Time: 1853	1. Received By:	Date: 9/3/10	Time: 1430
2. Relinquished By:	Date: 9/3/10	Time: 1600	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date: 9/4/10	Time: 1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

6

(1 - 59)

[redacted]

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra Tech NUS	Project Manager: Mike Martin	Date: 9-3-10	Chain of Custody Number: 114514
Address: 20251 Century Blvd Ste 200	Telephone Number (Area Code)/Fax Number: (301) 528-5552	Lab Number:	Page 2 of 2
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact: Veronica Bontat		
Project Name and Location (State): Mike Martin	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs	Special Instructions/ Conditions of Receipt
DHC-SW-VOC-7	9-3-10	0815		X						2			X	
DHC-SW-VOC-6	9-3-10	0800		X						2			X	
DHC-SW-VOC-DUP	9-3-10	0000		X						2			X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	9-3-10	0822	1. Received By: [signature]	9/3/10	1430
2. Relinquished By: [signature]	9/3/10	1600	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	9/4/10	10 00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

HOLDTIME

SDG C0I080421

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	DHC-SW-VOC-1	C0I080421002	SUR	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	CPC-PW-VOC-1	C0I080421011	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	CPC-SW-VOC-1	C0I080421012	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	CPC-SW-VOC-1	C0I080421012	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-PW-VOC-1	C0I080421001	NM	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-PW-VOC-1	C0I080421001	SUR	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-PW-VOC-2	C0I080421003	NM	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-PW-VOC-2	C0I080421003	SUR	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-PW-VOC-3	C0I080421009	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-PW-VOC-3	C0I080421009	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-PW-VOC-4	C0I080421005	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-PW-VOC-4	C0I080421005	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-PW-VOC-5	C0I080421007	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	CPC-PW-VOC-1	C0I080421011	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-1	C0I080421002	NM	09/01/2010	09/15/2010	09/15/2010	14	0	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	DHC-SW-VOC-DUP	C0I080421015	SUR	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-SW-VOC-2	C0I080421004	NM	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-SW-VOC-2	C0I080421004	SUR	09/01/2010	09/15/2010	09/15/2010	14	0	14
OV	UG/L	DHC-SW-VOC-3	C0I080421010	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-3	C0I080421010	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-4	C0I080421006	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-4	C0I080421006	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-5	C0I080421008	NM	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-5	C0I080421008	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13
OV	UG/L	DHC-SW-VOC-6	C0I080421014	NM	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-SW-VOC-6	C0I080421014	SUR	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-SW-VOC-7	C0I080421013	NM	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-SW-VOC-7	C0I080421013	SUR	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-SW-VOC-DUP	C0I080421015	NM	09/03/2010	09/15/2010	09/15/2010	12	0	12
OV	UG/L	DHC-PW-VOC-5	C0I080421007	SUR	09/02/2010	09/15/2010	09/15/2010	13	0	13

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L62TT1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: UXJ2191.D

Lot Number: C0I080421

Date Analyzed: 09/15/10

Time Analyzed: 09:49

Matrix: WATER

Date Extracted: 09/15/10

GC Column: DB 624 ID: .18

Extraction Method: 5030B

Instrument ID: UX11

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	L6KTW1AA	UXJ2211.D	09/15/10	17:20
02	LAB MS/MSD	L6KTW1AC S	UXJ2213.D	09/15/10	18:05
03	LAB MS/MSD	L6KTW1AD D	UXJ2214.D	09/15/10	18:27
04	DHC-PW-VOC-1	L6MM81AA	UXJ2194.D	09/15/10	10:56
05	DHC-SW-VOC-1	L6MNA1AA	UXJ2195.D	09/15/10	11:19
06	DHC-PW-VOC-2	L6MNC1AA	UXJ2196.D	09/15/10	11:41
07	DHC-SW-VOC-2	L6MNE1AA	UXJ2197.D	09/15/10	12:04
08	DHC-PW-VOC-4	L6MNF1AA	UXJ2199.D	09/15/10	12:49
09	DHC-SW-VOC-4	L6MNH1AA	UXJ2200.D	09/15/10	13:12
10	DHC-PW-VOC-5	L6MNK1AA	UXJ2201.D	09/15/10	13:34
11	DHC-SW-VOC-5	L6MNL1AA	UXJ2202.D	09/15/10	13:57
12	DHC-PW-VOC-3	L6MNM1AA	UXJ2203.D	09/15/10	14:19
13	DHC-SW-VOC-3	L6MNN1AA	UXJ2204.D	09/15/10	14:42
14	CPC-PW-VOC-1	L6MNP1AA	UXJ2205.D	09/15/10	15:04
15	CPC-SW-VOC-1	L6MNQ1AA	UXJ2215.D	09/15/10	18:50
16	DHC-SW-VOC-7	L6MNT1AA	UXJ2207.D	09/15/10	15:50
17	DHC-SW-VOC-6	L6MNV1AA	UXJ2208.D	09/15/10	16:12
18	DHC-SW-VOC-DUP	L6MNW1AA	UXJ2209.D	09/15/10	16:35
19	CHECK SAMPLE	L62TT1AC C	UXJ2189.D	09/15/10	09:04
20	DUPLICATE CHECK	L62TT1AD L	UXJ2190.D	09/15/10	09:26
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0I080421 **Work Order #...:** L62TT1AA **Matrix.....:** WATER
MB Lot-Sample #: A0I160000-157

Prep Date.....: 09/15/10 **Analysis Time..:** 09:49
Analysis Date..: 09/15/10 **Prep Batch #...:** 0259157 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Instrument ID..:** UX11
Analyst ID.....: 043582

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Acetone	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0I080421 **Work Order #...:** L62TT1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	20	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(73 - 122)
1,2-Dichloroethane-d4	74	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LCS

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0I160000 WO #: L62TT1AC
BATCH: 0259157

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	10.0	100	63 - 130	
Trichloroethene	10.0	10.1	101	75 - 122	
Benzene	10.0	10.1	101	80 - 116	
Toluene	10.0	10.1	101	74 - 119	
Chlorobenzene	10.0	9.93	99	76 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

LCSD

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0I160000 WO #: L62TT1AD

BATCH: 0259157

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	10.1	101	63 - 130	
Trichloroethene	10.0	10.0	100	75 - 122	
Benzene	10.0	10.0	100	80 - 116	
Toluene	10.0	10.0	100	74 - 119	
Chlorobenzene	10.0	9.84	98	76 - 117	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0I040435 WO #: L6KTW1AC
BATCH: 0259157

Not at sample

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	400	ND	402	101	62 - 130	
Trichloroethene	400	ND	419	105	62 - 130	
Benzene	400	1200	1780	135*	78 - 118	a
Toluene	400	ND	431	108	70 - 119	
Chlorobenzene	400	ND	426	106	76 - 117	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 1 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0I040435 WO #: L6KTW1AD
BATCH: 0259157

Not To Sample

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	400	388	97	3.6	20	62 - 130	
Trichloroethene	400	414	103	1.2	20	62 - 130	
Benzene	400	1740	126*	2.2	20	78 - 118	a
Toluene	400	416	104	3.4	20	70 - 119	
Chlorobenzene	400	412	103	3.3	20	76 - 117	

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 1 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0I080421

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	INTRA-LAB QC	81	78	86	89	00
02	DHC-PW-VOC-1	80	77	84	91	00
03	DHC-SW-VOC-1	80	77	85	91	00
04	DHC-PW-VOC-2	82	77	85	95	00
05	DHC-SW-VOC-2	81	76	84	91	00
06	DHC-PW-VOC-4	81	76	84	94	00
07	DHC-SW-VOC-4	82	77	83	92	00
08	DHC-PW-VOC-5	82	77	85	95	00
09	DHC-SW-VOC-5	80	78	84	92	00
10	DHC-PW-VOC-3	83	79	84	96	00
11	DHC-SW-VOC-3	83	79	83	92	00
12	CPC-PW-VOC-1	83	78	84	92	00
13	CPC-SW-VOC-1	81	78	83	92	00
14	DHC-SW-VOC-7	81	77	84	89	00
15	DHC-SW-VOC-6	82	78	83	91	00
16	DHC-SW-VOC-DUP	81	77	84	89	00
17	METHOD BLK. L62TT1AA	78	74	84	90	00
18	LCS L62TT1AC	82	81	85	98	00
19	LAB MS/MSD D	83	81	86	100	00
20	LCSD L62TT1AD	80	80	85	95	00
21	LAB MS/MSD S	82	83	86	102	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(73-122)
SRG02	= 1,2-Dichloroethane-d4	(61-128)
SRG03	= Toluene-d8	(76-110)
SRG04	= 4-Bromofluorobenzene	(74-116)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0I080421

Lab File ID: BFB439 BFB Injection Date: 08/05/10

Instrument ID: A3UX11 BFB Injection Time: 1204

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.4 (0.4)1
174	50.0 - 100.0% of mass 95	85.7
175	5.0 - 9.0% of mass 174	6.0 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.5 (96.2)1
177	5.0 - 9.0% of mass 176	5.1 (6.1)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-A9IC	UXJ1308	08/05/10	1625
02	VSTD020	100NG-A9IC	UXJ1309	08/05/10	1648
03	VSTD010	50NG-A9IC	UXJ1310	08/05/10	1711
04	VSTD005	25NG-A9IC	UXJ1311	08/05/10	1733
05	VSTD002	10NG-A9IC	UXJ1312	08/05/10	1756
06	VSTD001	5NG-A9IC	UXJ1313	08/05/10	1819
07					
08					
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22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0I080421

Lab File ID: BFB470 BFB Injection Date: 09/13/10

Instrument ID: A3UX11 BFB Injection Time: 1359

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.0
75	30.0 - 60.0% of mass 95	46.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 100.0% of mass 95	79.4
175	5.0 - 9.0% of mass 174	5.5 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.8 (95.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXJ2152	09/13/10	1507
02	VSTD020	100NG-IC	UXJ2153	09/13/10	1530
03	VSTD010	50NG-IC	UXJ2154	09/13/10	1552
04	VSTD005	25NG-IC	UXJ2155	09/13/10	1615
05	VSTD002	10NG-IC	UXJ2156	09/13/10	1637
06	VSTD001	5NG-IC	UXJ2157	09/13/10	1700
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 14-Sep-2010 08:03

Both Ical's are listed regular + RF-9

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 13-SEP-2010 17:00
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J00913A.b\8260LLUX11.m
Last Edit : 13-Sep-2010 17:16
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1313.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1312.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1311.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1310.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1309.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux11.i\J00805A-IC.b\UXJ1308.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	8 Dichlorodifluoromethane	0.24293	0.21700	0.23214	0.23377	0.24105	0.22856	0.23258	4.030
	9 Chloromethane	0.45539	0.39865	0.43423	0.41974	0.42872	0.40882	0.42426	4.718
	10 Vinyl Chloride	0.48426	0.41886	0.45228	0.44844	0.45125	0.42758	0.44711	5.105
	11 Bromomethane	0.19563	0.15892	0.19581	0.19113	0.20676	0.20026	0.19142	8.763
	12 Chloroethane	0.27254	0.22277	0.24658	0.23477	0.24125	0.22496	0.24048	7.560
	13 Trichlorofluoromethane	0.35679	0.30087	0.34393	0.32438	0.34490	0.33605	0.33449	5.873
	14 Dichlorofluoromethane	0.34464	0.31928	0.33565	0.35339	0.36362	0.36121	0.34630	4.865
	15 Acrolein	0.05771	0.05568	0.05883	0.05780	0.06026	0.05944	0.05829	2.751
	16 Acetone	0.19646	0.13998	0.11593	0.10782	0.10699	0.10216	0.12822	28.102
	17 1,1-Dichloroethene	0.37980	0.36232	0.36570	0.35934	0.37842	0.36304	0.36810	2.383
	18 Freon-113	0.26152	0.24248	0.25738	0.24688	0.25605	0.24506	0.25156	3.079
	19 Iodomethane	0.43339	0.39372	0.42330	0.40405	0.41844	0.41314	0.41434	3.400
	20 Carbon Disulfide	1.00995	0.95873	0.99311	0.96846	1.03844	1.03311	1.00030	3.291
	21 Methylene Chloride	0.43225	0.38181	0.37150	0.34700	0.34540	0.33801	0.36933	9.513
	22 Acetonitrile	0.04463	0.04603	0.04211	0.03955	0.04321	0.04194	0.04291	5.279 X
	23 Acrylonitrile	0.15351	0.14348	0.14640	0.14238	0.15336	0.15021	0.14822	3.280
	24 Methyl tert-butyl ether	0.90309	0.85482	0.90030	0.89969	0.95882	0.94066	0.90956	3.999
	25 trans-1,2-Dichloroethene	0.39397	0.36822	0.37636	0.36777	0.37719	0.36802	0.37525	2.700
	26 Hexane	0.10874	0.10781	0.11143	0.10727	0.11354	0.10721	0.10933	2.367
	27 Vinyl acetate	0.54024	0.54484	0.58320	0.61107	0.66231	0.68037	0.60367	9.738
	28 1,1-Dichloroethane	0.66327	0.61438	0.62692	0.61528	0.64936	0.63448	0.63395	3.057
	29 tert-Butyl Alcohol	0.02412	0.02242	0.02284	0.02277	0.02448	0.02335	0.02333	3.487
	30 2-Butanone	0.19820	0.18057	0.17146	0.16754	0.17901	0.17466	0.17857	6.016
M	31 1,2-Dichloroethene (total)	0.39736	0.37209	0.38221	0.37531	0.38597	0.37694	0.38164	2.400
	32 cis-1,2-dichloroethene	0.40074	0.37595	0.38805	0.38285	0.39474	0.38587	0.38803	2.259
	33 2,2-Dichloropropane	0.25292	0.24660	0.26141	0.26158	0.27258	0.27202	0.26119	3.936
	34 Bromochloromethane	0.18504	0.16893	0.17679	0.17554	0.18081	0.17437	0.17691	3.132
	35 Chloroform	0.60667	0.56834	0.57429	0.56003	0.58597	0.57411	0.57824	2.821

Report Date : 14-Sep-2010 08:03

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 13-SEP-2010 17:00
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J00913A.b\8260LLUX11.m
Last Edit : 13-Sep-2010 17:16
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	36 Tetrahydrofuran	0.12942	0.11108	0.10937	0.11110	0.11521	0.11076	0.11449	6.614	
	37 1,1,1-Trichloroethane	0.38387	0.35793	0.37367	0.36964	0.39313	0.38756	0.37764	3.443	
	38 1,1-Dichloropropene	0.54418	0.49544	0.52099	0.50276	0.52479	0.51315	0.51688	3.348	
	39 Carbon Tetrachloride	0.31394	0.30618	0.31629	0.31424	0.33391	0.33669	0.32021	3.815	
	40 1,2-Dichloroethane	0.45170	0.42619	0.43885	0.42396	0.44869	0.43521	0.43743	2.597	
	41 Benzene	1.67869	1.54997	1.57531	1.55505	1.61738	1.58129	1.59295	3.034	
	42 Trichloroethene	0.37614	0.36862	0.37484	0.36272	0.37797	0.36977	0.37168	1.535	
	43 1,2-Dichloropropane	0.39004	0.38443	0.39259	0.38552	0.39836	0.39712	0.39134	1.479	
	44 1,4-Dioxane	0.00301	0.00315	0.00330	0.00301	0.00343	0.00307	0.00316	5.467	<-
	45 Dibromomethane	0.21537	0.19577	0.20387	0.19730	0.20793	0.20548	0.20429	3.523	
	46 Bromodichloromethane	0.37991	0.34799	0.37889	0.38493	0.41620	0.42285	0.38846	7.066	
	47 2-Chloroethyl vinyl ether	0.19037	0.20366	0.22264	0.22572	0.24255	0.24350	0.22141	9.546	
	48 cis-1,3-Dichloropropene	0.47801	0.47010	0.52024	0.53847	0.58921	0.59635	0.53206	10.065	
	49 4-Methyl-2-pentanone	0.30560	0.30616	0.32755	0.32974	0.34885	0.34696	0.32748	5.753	
	50 Toluene	2.35275	2.18822	2.21319	2.18806	2.24605	2.11605	2.21739	3.559	
	51 trans-1,3-Dichloropropene	0.56702	0.56312	0.61445	0.63150	0.68225	0.65544	0.61896	7.690	
	52 Ethyl Methacrylate	0.52356	0.55989	0.62225	0.65331	0.70124	0.66459	0.62081	10.833	
	53 1,1,2-Trichloroethane	0.45517	0.43680	0.42661	0.41883	0.43157	0.39829	0.42788	4.431	
	54 1,3-Dichloropropane	0.80497	0.79941	0.79820	0.78043	0.81313	0.76022	0.79273	2.426	
	55 Tetrachloroethene	0.45081	0.40174	0.40673	0.38804	0.40401	0.37927	0.40510	6.110	
	56 2-Hexanone	0.26434	0.27431	0.28913	0.29649	0.31214	0.29815	0.28909	5.989	
	57 Dibromochloromethane	0.33696	0.33759	0.36861	0.38387	0.40679	0.40251	0.37272	8.228	
	58 1,2-Dibromoethane	0.40553	0.40583	0.41836	0.42398	0.42934	0.41479	0.41631	2.307	
	59 Chlorobenzene	1.45507	1.33844	1.32625	1.31153	1.36584	1.33345	1.35510	3.847	
	60 1,1,1,2-Tetrachloroethane	0.38727	0.38003	0.40359	0.40254	0.42275	0.41977	0.40266	4.224	
	61 Ethylbenzene	0.72517	0.72065	0.73749	0.73103	0.76455	0.74319	0.73701	2.137	
	62 m + p-Xylene	0.92823	0.89619	0.92083	0.91802	0.94489	0.93497	0.92386	1.807	
M	63 Xylenes (total)	0.90318	0.87865	0.90599	0.90360	0.93028	0.92014	0.90697	1.938	
	64 Xylene-o	0.85306	0.84357	0.87629	0.87475	0.90106	0.89048	0.87320	2.494	
	65 Styrene	1.36527	1.32268	1.46184	1.48054	1.56755	1.57200	1.46165	7.000	
	66 Bromoform	0.20163	0.18972	0.21077	0.22642	0.25390	0.26491	0.22456	13.243	
	67 Isopropylbenzene	2.17149	2.08458	2.20810	2.23036	2.32225	2.31165	2.22141	4.016	
	68 1,1,2,2-Tetrachloroethane	1.18106	1.07632	1.15377	1.11219	1.18469	1.13542	1.14057	3.662	
	69 1,4-Dichloro-2-butene	0.27831	0.25231	0.28305	0.28364	0.31312	0.31909	0.28825	8.510	
	70 1,2,3-Trichloropropane	0.35925	0.35597	0.35410	0.34371	0.36055	0.34713	0.35345	1.901	
	71 Bromobenzene	1.16080	1.13909	1.13042	1.09857	1.15419	1.13086	1.13565	1.934	

Report Date : 14-Sep-2010 08:03

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 13-SEP-2010 17:00
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J00913A.b\8260LLUX11.m
Last Edit : 13-Sep-2010 17:16
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
72 n-Propylbenzene	1.24935	1.20524	1.28058	1.24003	1.28198	1.26149	1.25311	2.295	
73 2-Chlorotoluene	1.11428	1.05527	1.11184	1.05739	1.10580	1.07836	1.08716	2.493	
74 1,3,5-Trimethylbenzene	3.49582	3.46811	3.71931	3.62182	3.81716	3.80932	3.65526	4.160	
75 4-Chlorotoluene	1.19330	1.13361	1.15896	1.12792	1.16217	1.13506	1.15184	2.149	
76 tert-Butylbenzene	2.98044	2.94639	3.08872	3.07481	3.24773	3.21494	3.09217	3.916	
77 1,2,4-Trimethylbenzene	3.59818	3.50597	3.74682	3.60657	3.82557	3.78633	3.67824	3.424	
78 sec-Butylbenzene	4.45510	4.40645	4.65268	4.51002	4.81919	4.70570	4.59152	3.486	
79 4-Isopropyltoluene	3.42191	3.45404	3.66964	3.53266	3.80250	3.70026	3.59683	4.187	
80 1,3-Dichlorobenzene	2.16525	2.00229	2.06198	1.97112	2.07546	1.99493	2.04517	3.489	
81 1,4-Dichlorobenzene	2.19016	2.06975	2.14298	2.02358	2.13150	2.02696	2.09749	3.235	
82 n-Butylbenzene	2.86131	2.81688	3.10222	3.04580	3.24001	2.93220	2.99974	5.324	
83 1,2-Dichlorobenzene	1.95282	1.79313	1.85940	1.78636	1.85015	1.68216	1.82067	4.971	
84 1,2-Dibromo-3-chloropropane	0.08093	0.08702	0.09322	0.08651	0.09885	0.09120	0.08962	6.925	
85 1,2,4-Trichlorobenzene	0.62856	0.60645	0.62749	0.61702	0.67162	0.65421	0.63423	3.825	
86 Hexachlorobutadiene	0.25897	0.25897	0.25846	0.24048	0.25612	0.24429	0.25288	3.277	
87 Naphthalene	1.30427	1.35045	1.58625	1.66016	1.84145	1.80027	1.59047	14.099	
88 1,2,3-Trichlorobenzene	0.62479	0.60122	0.63357	0.58840	0.65025	0.60909	0.61789	3.666	
89 Ethyl Ether	0.31663	0.28837	0.29648	0.29791	0.30488	0.29903	0.30055	3.162	
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	0.12500	0.10925	0.13345	0.15212	0.16367	0.17328	0.14279	17.101	
92 Isopropyl Ether	0.32750	0.29971	0.31377	0.31592	0.33681	0.33660	0.32172	4.533	
93 2-Chloro-1,3-butadiene	0.49478	0.46719	0.48253	0.48665	0.52042	0.51048	0.49367	3.922	
94 Propionitrile	0.05136	0.04810	0.04994	0.04861	0.05019	0.04955	0.04963	2.353	X
95 Ethyl Acetate	0.36105	0.32800	0.32186	0.32048	0.33048	0.33421	0.33268	4.458	
96 Methacrylonitrile	0.20099	0.20043	0.20880	0.24018	0.23573	0.23342	0.21993	8.395	
97 Isobutanol	0.01321	0.01311	0.01363	0.01377	0.01349	0.01340	0.01343	1.866	X
98 Cyclohexane	0.72271	0.70447	0.70615	0.69911	0.73279	0.72560	0.71514	1.907	
99 n-Butanol	0.00859	0.00825	0.00949	0.01021	0.01059	0.01098	0.00968	11.380	<- X
100 Methyl Methacrylate	0.27425	0.26531	0.28421	0.29612	0.31593	0.31976	0.29260	7.560	
101 2-Nitropropane	0.05173	0.04554	0.05334	0.05848	0.06563	0.07125	0.05766	16.448	X
102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103 Cyclohexanone	0.02767	0.02302	0.02267	0.02662	0.02695	0.02785	0.02580	9.052	
104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 14-Sep-2010 08:03

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-JUN-2010 12:26
End Cal Date : 13-SEP-2010 17:00
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux11.i\J00913A.b\8260LLUX11.m
Last Edit : 13-Sep-2010 17:16
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M	137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	141 1,3,5-Trichlorobenzene	0.71449	0.65787	0.69160	0.66562	0.70893	0.68697	0.68758	3.292	
	143 Methyl Acetate	0.31953	0.29262	0.29411	0.29300	0.30440	0.30211	0.30096	3.446	
	144 Methylcyclohexane	0.69251	0.66943	0.68382	0.65898	0.71037	0.68971	0.68414	2.646	
	145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	146 2-Methylnaphthalene	0.48922	0.60576	0.72203	0.92804	0.99813	1.00806	0.79187	27.606	X
	147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	149 Ethyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	150 Vinyl Acetate-86	0.05860	0.05859	0.06354	0.06620	0.07320	0.07573	0.06598	10.977	
	151 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	152 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	155 t-Butyl ethyl ether	0.93099	0.86916	0.94928	0.94330	1.01542	1.02808	0.95604	6.117	
	156 t-Amyl methyl ether	0.82218	0.75193	0.81192	0.82633	0.89718	0.91486	0.83740	7.141	
	157 1,2,3-Trimethylbenzene	3.51565	3.28573	3.61961	3.69654	4.02260	4.06903	3.70153	8.126	
$	4 Dibromofluoromethane	0.31290	0.29967	0.30175	0.29879	0.31423	0.30866	0.30600	2.229	
$	5 1,2-Dichloroethane-d4	0.39338	0.39251	0.38894	0.38454	0.39476	0.38876	0.39048	0.968	
$	6 Toluene-d8	1.82347	1.86396	1.82839	1.79858	1.86221	1.75305	1.82161	2.293	
$	7 Bromofluorobenzene	0.61564	0.61948	0.61904	0.61578	0.64207	0.63088	0.62381	1.691	

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0I080421

Lab File ID: BFB472 BFB Injection Date: 09/15/10

Instrument ID: A3UX11 BFB Injection Time: 0750

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.2
75	30.0 - 60.0% of mass 95	46.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 100.0% of mass 95	83.6
175	5.0 - 9.0% of mass 174	5.8 (6.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (95.6)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXJ2187	09/15/10	0819
02	VSTD010	50NG-A9CC	UXJ2188	09/15/10	0841
03	L62TTCHK	L62TT1AC	UXJ2189	09/15/10	0904
04	L62TTCKDUP	L62TT1AD	UXJ2190	09/15/10	0926
05	L62TTBLK	L62TT1AA	UXJ2191	09/15/10	0949
06	DHC-PW-VOC-1	L6MM81AA	UXJ2194	09/15/10	1056
07	DHC-SW-VOC-1	L6MNA1AA	UXJ2195	09/15/10	1119
08	DHC-PW-VOC-2	L6MNC1AA	UXJ2196	09/15/10	1141
09	DHC-SW-VOC-2	L6MNE1AA	UXJ2197	09/15/10	1204
10	DHC-PW-VOC-4	L6MNF1AA	UXJ2199	09/15/10	1249
11	DHC-SW-VOC-4	L6MNH1AA	UXJ2200	09/15/10	1312
12	DHC-PW-VOC-5	L6MNK1AA	UXJ2201	09/15/10	1334
13	DHC-SW-VOC-5	L6MNL1AA	UXJ2202	09/15/10	1357
14	DHC-PW-VOC-3	L6MNM1AA	UXJ2203	09/15/10	1419
15	DHC-SW-VOC-3	L6MNN1AA	UXJ2204	09/15/10	1442
16	CPC-PW-VOC-1	L6MNP1AA	UXJ2205	09/15/10	1504
17	DHC-SW-VOC-7	L6MNT1AA	UXJ2207	09/15/10	1550
18	DHC-SW-VOC-6	L6MNV1AA	UXJ2208	09/15/10	1612
19	DHC-SW-VOC-D	L6MNW1AA	UXJ2209	09/15/10	1635
20	CPC-SW-VOC-1	L6MNQ1AA	UXJ2215	09/15/10	1850
21					
22					

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2187.D
Report Date: 15-Sep-2010 09:09

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 15-SEP-2010 08:19
Lab File ID: UXJ2187.D Init. Cal. Date(s): 17-JUN-2010 13-SEP-2010
Analysis Type: WATER Init. Cal. Times: 12:26 17:00
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 4 Dibromofluoromethane	0.30600	0.25414	0.25414	0.010	16.94781	50.00000	Averaged	
$ 5 1,2-Dichloroethane-d4	0.39048	0.31012	0.31012	0.010	20.57917	50.00000	Averaged	
$ 6 Toluene-d8	1.82161	1.55330	1.55330	0.010	14.72918	50.00000	Averaged	
$ 7 Bromofluorobenzene	0.62381	0.58857	0.58857	0.010	5.64965	50.00000	Averaged	
8 Dichlorodifluoromethane	0.23258	0.21585	0.21585	0.010	7.19121	50.00000	Averaged	
9 Chloromethane	0.42426	0.44530	0.44530	0.100	-4.96023	50.00000	Averaged	
10 Vinyl Chloride	0.44711	0.45863	0.45863	0.010	-2.57599	20.00000	Averaged	
11 Bromomethane	0.19142	0.19074	0.19074	0.010	0.35699	50.00000	Averaged	
12 Chloroethane	0.24048	0.23911	0.23911	0.010	0.56743	50.00000	Averaged	
13 Trichlorofluoromethane	0.33449	0.33804	0.33804	0.010	-1.06321	50.00000	Averaged	
15 Acrolein	0.05829	0.04987	0.04987	0.010	14.43539	50.00000	Averaged	X
16 Acetone	100	87.48923	0.09672	0.010	12.51077	0.000e+000	Wt Linear	
17 1,1-Dichloroethene	0.36810	0.39360	0.39360	0.010	-6.92731	20.00000	Averaged	
18 Freon-113	0.25156	0.23051	0.23051	0.010	8.36643	50.00000	Averaged	
19 Iodomethane	0.41434	0.40103	0.40103	0.010	3.21190	50.00000	Averaged	
20 Carbon Disulfide	1.00030	1.01582	1.01582	0.010	-1.55185	50.00000	Averaged	
21 Methylene Chloride	0.36933	0.34610	0.34610	0.010	6.28900	50.00000	Averaged	
22 Acetonitrile	0.04291	0.04006	0.04006	0.010	6.63869	50.00000	Averaged	X
23 Acrylonitrile	0.14822	0.14003	0.14003	0.010	5.52959	50.00000	Averaged	
24 Methyl tert-butyl ether	0.90956	0.94507	0.94507	0.010	-3.90421	50.00000	Averaged	
25 trans-1,2-Dichloroethene	0.37525	0.39367	0.39367	0.010	-4.90855	50.00000	Averaged	
26 Hexane	0.10933	0.10184	0.10184	0.010	6.85215	20.00000	Averaged	
27 Vinyl acetate	0.60367	0.55583	0.55583	0.010	7.92488	50.00000	Averaged	
28 1,1-Dichloroethane	0.63395	0.67957	0.67957	0.100	-7.19603	50.00000	Averaged	
29 tert-Butyl Alcohol	0.02333	0.01996	0.01996	0.010	14.44478	50.00000	Averaged	
30 2-Butanone	0.17857	0.15412	0.15412	0.010	13.69339	50.00000	Averaged	
M 31 1,2-Dichloroethene (total)	0.38164	0.40635	0.40635	0.010	-6.47448	50.00000	Averaged	
32 cis-1,2-dichloroethene	0.38803	0.41903	0.41903	0.010	-7.98885	50.00000	Averaged	
33 2,2-Dichloropropane	0.26119	0.22912	0.22912	0.010	12.27906	50.00000	Averaged	
34 Bromochloromethane	0.17691	0.19055	0.19055	0.010	-7.70635	50.00000	Averaged	
35 Chloroform	0.57824	0.61962	0.61962	0.010	-7.15624	20.00000	Averaged	
36 Tetrahydrofuran	0.11449	0.10102	0.10102	0.010	11.76490	50.00000	Averaged	
37 1,1,1-Trichloroethane	0.37764	0.35436	0.35436	0.010	6.16229	50.00000	Averaged	
38 1,1-Dichloropropene	0.51688	0.53559	0.53559	0.010	-3.61832	50.00000	Averaged	
39 Carbon Tetrachloride	0.32021	0.31807	0.31807	0.010	0.66827	50.00000	Averaged	
40 1,2-Dichloroethane	0.43743	0.46239	0.46239	0.010	-5.70496	50.00000	Averaged	
41 Benzene	1.59295	1.76161	1.76161	0.010	-10.58817	50.00000	Averaged	
42 Trichloroethene	0.37168	0.38819	0.38819	0.010	-4.44387	50.00000	Averaged	
43 1,2-Dichloropropane	0.39134	0.41668	0.41668	0.010	-6.47342	20.00000	Averaged	
44 1,4-Dioxane	0.00316	0.00284	0.00284	0.010	10.26639	50.00000	Averaged	<- X
45 Dibromomethane	0.20429	0.21187	0.21187	0.010	-3.71389	50.00000	Averaged	
46 Bromodichloromethane	0.38846	0.44753	0.44753	0.010	-15.20580	50.00000	Averaged	
47 2-Chloroethyl vinyl ether	0.22141	0.22402	0.22402	0.010	-1.17945	50.00000	Averaged	

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2187.D
Report Date: 15-Sep-2010 09:09

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 15-SEP-2010 08:19
Lab File ID: UXJ2187.D Init. Cal. Date(s): 17-JUN-2010 13-SEP-2010
Analysis Type: WATER Init. Cal. Times: 12:26 17:00
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.53206	0.59086	0.59086	0.010	-11.04998	50.00000	Averaged
49 4-Methyl-2-pentanone	0.32748	0.29790	0.29790	0.010	9.03225	50.00000	Averaged
50 Toluene	2.21739	2.37312	2.37312	0.010	-7.02345	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.61896	0.67832	0.67832	0.010	-9.58936	50.00000	Averaged
52 Ethyl Methacrylate	0.62081	0.64534	0.64534	0.010	-3.95221	50.00000	Averaged
53 1,1,2-Trichloroethane	0.42788	0.44479	0.44479	0.010	-3.95262	50.00000	Averaged
54 1,3-Dichloropropane	0.79273	0.81726	0.81726	0.010	-3.09482	50.00000	Averaged
55 Tetrachloroethene	0.40510	0.42173	0.42173	0.010	-4.10555	50.00000	Averaged
56 2-Hexanone	0.28909	0.26016	0.26016	0.010	10.00941	50.00000	Averaged
57 Dibromochloromethane	0.37272	0.43167	0.43167	0.010	-15.81445	50.00000	Averaged
58 1,2-Dibromoethane	0.41631	0.42763	0.42763	0.010	-2.72117	50.00000	Averaged
59 Chlorobenzene	1.35510	1.42593	1.42593	0.300	-5.22673	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.40266	0.44719	0.44719	0.010	-11.06043	50.00000	Averaged
61 Ethylbenzene	0.73701	0.79908	0.79908	0.010	-8.42172	20.00000	Averaged
62 m + p-Xylene	0.92386	0.99588	0.99588	0.010	-7.79564	50.00000	Averaged
M 63 Xylenes (total)	0.90697	0.97689	0.97689	0.010	-7.70893	50.00000	Averaged
64 Xylene-o	0.87320	0.93891	0.93891	0.010	-7.52544	50.00000	Averaged
65 Styrene	1.46165	1.59037	1.59037	0.010	-8.80661	50.00000	Averaged
66 Bromoform	0.22456	0.24440	0.24440	0.100	-8.83393	50.00000	Averaged
67 Isopropylbenzene	2.22141	2.37854	2.37854	0.010	-7.07360	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	1.14057	1.12705	1.12705	0.300	1.18612	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.28825	0.28035	0.28035	0.010	2.74237	50.00000	Averaged
70 1,2,3-Trichloropropane	0.35345	0.34450	0.34450	0.010	2.53173	50.00000	Averaged
71 Bromobenzene	1.13565	1.22593	1.22593	0.010	-7.94960	50.00000	Averaged
72 n-Propylbenzene	1.25311	1.35820	1.35820	0.010	-8.38597	50.00000	Averaged
73 2-Chlorotoluene	1.08716	1.17644	1.17644	0.010	-8.21246	50.00000	Averaged
74 1,3,5-Trimethylbenzene	3.65526	4.05832	4.05832	0.010	-11.02702	50.00000	Averaged
75 4-Chlorotoluene	1.15184	1.22331	1.22331	0.010	-6.20537	50.00000	Averaged
76 tert-Butylbenzene	3.09217	3.37717	3.37717	0.010	-9.21692	50.00000	Averaged
77 1,2,4-Trimethylbenzene	3.67824	4.11813	4.11813	0.010	-11.95920	50.00000	Averaged
78 sec-Butylbenzene	4.59152	4.96344	4.96344	0.010	-8.10012	50.00000	Averaged
79 4-Isopropyltoluene	3.59683	3.93212	3.93212	0.010	-9.32179	50.00000	Averaged
80 1,3-Dichlorobenzene	2.04517	2.19219	2.19219	0.010	-7.18875	50.00000	Averaged
81 1,4-Dichlorobenzene	2.09749	2.23833	2.23833	0.010	-6.71449	50.00000	Averaged
82 n-Butylbenzene	2.99974	3.24602	3.24602	0.010	-8.21027	50.00000	Averaged
83 1,2-Dichlorobenzene	1.82067	1.94236	1.94236	0.010	-6.68404	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.08962	0.07902	0.07902	0.010	11.83406	50.00000	Averaged
85 1,2,4-Trichlorobenzene	0.63423	0.69332	0.69332	0.010	-9.31790	50.00000	Averaged
86 Hexachlorobutadiene	0.25288	0.27478	0.27478	0.010	-8.65918	50.00000	Averaged
87 Naphthalene	1.59047	1.67903	1.67903	0.010	-5.56814	50.00000	Averaged
88 1,2,3-Trichlorobenzene	0.61789	0.67163	0.67163	0.010	-8.69862	50.00000	Averaged
98 Cyclohexane	0.71514	0.68834	0.68834	0.010	3.74737	50.00000	Averaged
143 Methyl Acetate	0.30096	0.28765	0.28765	0.010	4.42191	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2187.D
Report Date: 15-Sep-2010 09:09

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 15-SEP-2010 08:19
Lab File ID: UXJ2187.D Init. Cal. Date(s): 17-JUN-2010 13-SEP-2010
Analysis Type: WATER Init. Cal. Times: 12:26 17:00
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	0.68414	0.68839	0.68839	0.010	-0.62101	50.00000	Averaged
141 1,3,5-Trichlorobenzene	0.68758	0.71475	0.71475	0.010	-3.95227	50.00000	Averaged
150 Vinyl Acetate-86	0.06598	0.06246	0.06246	0.010	5.32701	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\UXJ2188.D
Report Date: 15-Sep-2010 08:57

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux11.i Injection Date: 15-SEP-2010 08:41
Lab File ID: UXJ2188.D Init. Cal. Date(s): 17-JUN-2010 13-SEP-2010
Analysis Type: WATER Init. Cal. Times: 12:26 17:00
Lab Sample ID: 50NG-A9CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux11.i\J00915A.b\8260LLUX11.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
14 Dichlorofluoromethane	0.34630	0.50633	0.50633	0.010	-46.21102	50.00000	Averaged	X
89 Ethyl Ether	0.30055	0.32937	0.32937	0.010	-9.59093	50.00000	Averaged	
91 3-Chloropropene	50.00000	59.38841	0.19374	0.010	-18.77682	0.000e+000	Wt Linear	
92 Isopropyl Ether	0.32172	0.34311	0.34311	0.010	-6.64938	50.00000	Averaged	
93 2-Chloro-1,3-butadiene	0.49367	0.54999	0.54999	0.010	-11.40756	50.00000	Averaged	
94 Propionitrile	0.04963	0.05038	0.05038	0.010	-1.52647	50.00000	Averaged	
95 Ethyl Acetate	0.33268	0.33033	0.33033	0.010	0.70720	50.00000	Averaged	
96 Methacrylonitrile	0.21993	0.22374	0.22374	0.010	-1.73457	50.00000	Averaged	
97 Isobutanol	0.01343	0.01313	0.01313	0.010	2.24189	50.00000	Averaged	X
99 n-Butanol	0.00968	0.01038	0.01038	0.010	-7.16217	50.00000	Averaged	<- X
103 Cyclohexanone	0.02580	0.05581	0.05581	0.010	-116	50.00000	Averaged	<- X
100 Methyl Methacrylate	0.29260	0.29640	0.29640	0.010	-1.29901	50.00000	Averaged	
101 2-Nitropropane	100	96.65077	0.06325	0.010	3.34923	0.000e+000	Wt Linear	
155 t-Butyl ethyl ether	0.95604	1.00872	1.00872	0.010	-5.51054	50.00000	Averaged	
156 t-Amyl methyl ether	0.83740	0.90171	0.90171	0.010	-7.67982	50.00000	Averaged	
157 1,2,3-Trimethylbenzene	3.70153	3.88483	3.88483	0.010	-4.95221	50.00000	Averaged	
146 2-Methylnaphthalene	100	87.14761	0.81461	0.010	12.85239	0.000e+000	Wt Linear	

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0I080421

Lab File ID (Standard): UXJ2187 Date Analyzed: 09/15/10

Instrument ID: A3UX11 Time Analyzed: 0819

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 AREA #	RT	IS2 (CBZ) AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1940790	5.35	1453891	8.04	683553	10.29
	UPPER LIMIT	3881580	5.85	2907782	8.54	1367106	10.79
	LOWER LIMIT	970395	4.85	726946	7.54	341777	9.79
	EPA SAMPLE NO.						
01	L62TTCHK	1807561	5.35	1350358	8.04	658276	10.29
02	L62TTCKDUP	1880278	5.35	1402803	8.04	678301	10.29
03	L62TTBLK	1821940	5.35	1310402	8.04	567385	10.29
04	DHC-PW-VOC-1	1741359	5.35	1285879	8.04	577267	10.29
05	DHC-SW-VOC-1	1725714	5.35	1250170	8.04	545562	10.29
06	DHC-PW-VOC-2	1706507	5.35	1266072	8.04	554138	10.29
07	DHC-SW-VOC-2	1682815	5.35	1234016	8.04	535823	10.29
08	DHC-PW-VOC-4	1731220	5.35	1278327	8.04	572619	10.29
09	DHC-SW-VOC-4	1648666	5.35	1225640	8.04	541374	10.29
10	DHC-PW-VOC-5	1643627	5.35	1211491	8.04	541327	10.29
11	DHC-SW-VOC-5	1628640	5.35	1193005	8.04	525064	10.29
12	DHC-PW-VOC-3	1612697	5.35	1197716	8.04	540895	10.29
13	DHC-SW-VOC-3	1597825	5.35	1192557	8.04	526018	10.29
14	CPC-PW-VOC-1	1583855	5.35	1184434	8.04	538103	10.29
15	DHC-SW-VOC-7	1657925	5.35	1200715	8.04	527524	10.29
16	DHC-SW-VOC-6	1585057	5.35	1153123	8.04	503644	10.29
17	DHC-SW-VOC-D	1575575	5.35	1141613	8.04	485343	10.29
18	CPC-SW-VOC-1	1648922	5.35	1234223	8.04	530180	10.29
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0I080421

Lab File ID (Standard): UXJ2187 Date Analyzed: 09/15/10

Instrument ID: A3UX11 Time Analyzed: 0819

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 AREA #	RT	IS2 (CBZ) AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1940790	5.35	1453891	8.04	683553	10.29
	UPPER LIMIT	3881580	5.85	2907782	8.54	1367106	10.79
	LOWER LIMIT	970395	4.85	726946	7.54	341777	9.79
	EPA SAMPLE NO.						
01	L62TTCHK	1807561	5.35	1350358	8.04	658276	10.29
02	L62TTCKDUP	1880278	5.35	1402803	8.04	678301	10.29
03	L62TTBLK	1821940	5.35	1310402	8.04	567385	10.29
04	DHC-PW-VOC-1	1741359	5.35	1285879	8.04	577267	10.29
05	DHC-SW-VOC-1	1725714	5.35	1250170	8.04	545562	10.29
06	DHC-PW-VOC-2	1706507	5.35	1266072	8.04	554138	10.29
07	DHC-SW-VOC-2	1682815	5.35	1234016	8.04	535823	10.29
08	DHC-PW-VOC-4	1731220	5.35	1278327	8.04	572619	10.29
09	DHC-SW-VOC-4	1648666	5.35	1225640	8.04	541374	10.29
10	DHC-PW-VOC-5	1643627	5.35	1211491	8.04	541327	10.29
11	DHC-SW-VOC-5	1628640	5.35	1193005	8.04	525064	10.29
12	DHC-PW-VOC-3	1612697	5.35	1197716	8.04	540895	10.29
13	DHC-SW-VOC-3	1597825	5.35	1192557	8.04	526018	10.29
14	CPC-PW-VOC-1	1583855	5.35	1184434	8.04	538103	10.29
15	DHC-SW-VOC-7	1657925	5.35	1200715	8.04	527524	10.29
16	DHC-SW-VOC-6	1585057	5.35	1153123	8.04	503644	10.29
17	DHC-SW-VOC-D	1575575	5.35	1141613	8.04	485343	10.29
18	CPC-SW-VOC-1	1648922	5.35	1234223	8.04	530180	10.29
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. MARTIN**	**DATE:**	**NOVEMBER 5, 2010**
FROM:	**TERRI SOLOMON**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION- VOC LOCKHEED MIDDLE RIVER CENTER SDG C0J010569**		
SAMPLES:	5/Aqueous		

CPC-PW-VOC-2 CPC-PW-VOC-3 CPC-SW-VOC-2
CPC-SW-VOC-3 TB

Overview

The sample set for Lockheed Middle River Center, SDG C0J010569, consists of four (4) aqueous environmental samples and one (1) trip blank (TB). No field duplicate samples were included in this SDG.

All samples were analyzed for volatile organic compounds (VOC). The samples were collected by Tetra Tech on September 29, 2010 and analyzed by Test America (Pittsburgh). All analyses were conducted in accordance with SW-846 Methods 8260B.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/trip blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike / matrix spike duplicate recoveries, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial calibration relative response factors on 09/09/10 and continuing calibration relative response factors on 10/10/10 at 8:50 and 10/11/10 at 10:44 on instrument A3UX15 were < 0.05 quality control limit for tert-butyl alcohol and vinyl acetate affecting all samples. The nondetected results reported for tert-butyl alcohol and vinyl acetate were qualified as rejected, "UR".

Minor

- The continuing calibration percent differences (%Ds) on 10/10/10 at 8:50 on instrument A3UX15 were > 20% but < 50% quality control limits for 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, hexachlorobutadiene, chloroethane, acetone, carbon disulfide, methyl tert-butyl ether, tert-butyl alcohol, 2-butanone and 2,2-dichloropropane affecting samples CPC-PW-VOC-3, CPC-PW-VOC-2, CPC-SW-VOC-3 and TB. The positive results reported for 2-butanone were qualified as estimated, "J". No validation actions are required for nondetected results.

- The continuing calibration %D on 10/11/10 at 10:44 on instrument A3UX15 was > 50% quality control limit for methyl tert-butyl ether affecting sample CPC-PW-VOC-2. The nondetected result reported for methyl tert-butyl ether was qualified as estimated, "UJ".

- The continuing calibration percent differences (%Ds) on 10/11/10 at 10:44 on instrument A3UX15 were > 20% but < 50% quality control limits for acetone, carbon disulfide, tert-butyl alcohol, 2-butanone, 2,2-dichloropropane, cis-1,3-dichloropropene, 4-methyl-2-pentanone, trans-1,3-dichloropropene, 2-hexanone, 1,2,4-trichlorobenzene and hexachlorobutadiene affecting sample CPC-PW-VOC-2. The positive result reported for 2-butanone was qualified as estimated, "J". No validation actions are required for nondetected results.

- The following compounds were detected in the method/trip blank at the maximum concentrations indicated below:

Compound	Concentration	Action Level
tert-Butyl alcohol	10 ug/L	50 ug/L
Acetone[(1)]	27 ug/L	270 ug/L

(1) Maximum concentration present in a trip blank.

An action level of 10X the maximum contaminant concentration was established for common laboratory contaminants; 5X for all other compounds to evaluate laboratory contamination. Dilution factors, and sample aliquots were taken into consideration during the application of all action levels. The positive results for acetone were qualified "B" due to blank contamination.

- The laboratory control sample / laboratory control sample duplicate (LCSLCSD) percent recoveries were below the quality control limits for chlorobenzene associated with sample CPC-PW-VOC-2. The nondetected result reported for chlorobenzene was qualified as biased low, "UL".

- Positive results less than the reporting limit (RL) but greater than the method detection limit (MDL) were qualified as estimated, "J".

Notes

The initial calibration percent relative standard deviations (%RSDs) on 09/09/10 on instrument A3UX15 were > 15% but < 50% quality control limits for acetone and methylene chloride affecting all samples. No validation actions were warranted as the sample results for acetone were qualified as a result of blank contamination and the sample results for methylene chloride were nondetects.

The LCSD percent recovery was below the quality control limit for toluene associated with sample CPC-PW-VOC-2. No validation actions were warranted as the LCS was within quality control limits.

Nondetected results are reported to the method detection limit (MDL).

Sample CPC-PW-VOC-2 was analyzed at a 2.5 dilution.

Executive Summary

Laboratory Performance: Several initial and continuing calibration RRFs were < 0.05 quality control limit. Several continuing calibration %Ds were > 20% quality control limit. The LCSLCSD percent recoveries were below the quality control limits for chlorobenzene associated with sample CPC-PW-VOC-2.

Other Factors Affecting Data Quality: Acetone was present in the trip blank. Positive results less than the RL but greater than the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Terri L. Solomon
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02903	NSAMPLE	CPC-PW-VOC-2			CPC-PW-VOC-3			CPC-SW-VOC-2			CPC-SW-VOC-3		
SDG: C0J010569	LAB_ID	C0J010569001			C0J010569002			C0J010569003			C0J010569004		
FRACTION: OV	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.32	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.32	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.38	UL	E	0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.45	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.72	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.4	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.75	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.42	U		0.24	J	P	0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.35	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.7	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.78	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		3.8	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.28	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.42	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.75	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.6	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.42	UJ	C	0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.82	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.6	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.3	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.35	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.35	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.28	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.17	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		9.8	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.72	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.32	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.7	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.48	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.48	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.42	U		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.52	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 02903 SDG: C0J010569 FRACTION: OV MEDIA: WATER	NSAMPLE	CPC-PW-VOC-2			CPC-PW-VOC-3			CPC-SW-VOC-2			CPC-SW-VOC-3		
	LAB_ID	C0J010569001			C0J010569002			C0J010569003			C0J010569004		
	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.58	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.55	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.45	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.7	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.38	U		0.25	J	P	0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.48	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.32	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.42	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		1.1	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.015	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.38	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.3	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.7	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.6	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.55	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.45	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.35	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.4	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.32	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		120	J	C	3	J	CP	0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		2.5	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.28	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		1	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.45	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.3	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.8	U		0.32	U		0.32	U		0.32	U	
ACETONE		140	B	B	17	B	B	6.4	B	B	8.6	B	B
BENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.32	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.72	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.38	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		1.6	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		1	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 02903	NSAMPLE	CPC-PW-VOC-2			CPC-PW-VOC-3			CPC-SW-VOC-2			CPC-SW-VOC-3		
SDG: C0J010569	LAB_ID	C0J010569001			C0J010569002			C0J010569003			C0J010569004		
FRACTION: OV	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.48	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.55	U		0.55	J	P	0.22	U		0.22	U	

PROJ_NO: 02903	NSAMPLE	TB
SDG: C0J010569	LAB_ID	C0J010569005
FRACTION: OV	SAMP_DATE	9/29/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U	
1,1,1-TRICHLOROETHANE	0.22	U	
1,1,2,2-TETRACHLOROETHANE	0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U	
1,1-DICHLOROETHANE	0.15	U	
1,1-DICHLOROETHENE	0.19	U	
1,1-DICHLOROPROPENE	0.13	U	
1,2,3-TRICHLOROBENZENE	0.17	U	
1,2,3-TRICHLOROPROPANE	0.43	U	
1,2,3-TRIMETHYLBENZENE	0.0059	U	
1,2,4-TRICHLOROBENZENE	0.15	U	
1,2,4-TRIMETHYLBENZENE	0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U	
1,2-DIBROMOETHANE	0.24	U	
1,2-DICHLOROBENZENE	0.13	U	
1,2-DICHLOROETHANE	0.22	U	
1,2-DICHLOROPROPANE	0.18	U	
1,3-DICHLOROBENZENE	0.14	U	
1,3-DICHLOROPROPANE	0.16	U	
1,4-DICHLOROBENZENE	0.13	U	
2,2-DICHLOROPROPANE	0.13	U	
2-BUTANONE	0.57	U	
2-CHLOROETHYL VINYL ETHER	0.99	U	
2-CHLOROTOLUENE	0.11	U	
2-HEXANONE	0.41	U	
4-CHLOROTOLUENE	0.18	U	
4-ISOPROPYLTOLUENE	0.12	U	
4-METHYL-2-PENTANONE	0.32	U	
ACETONE	27		
BENZENE	0.13	U	
BROMOBENZENE	0.13	U	
BROMOCHLOROMETHANE	0.29	U	
BROMODICHLOROMETHANE	0.15	U	
BROMOFORM	0.64	U	
BROMOMETHANE	0.41	U	

PROJ_NO: 02903 SDG: C0J010569 FRACTION: OV MEDIA: WATER	NSAMPLE	TB
	LAB_ID	C0J010569005
	SAMP_DATE	9/29/2010
	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
CARBON DISULFIDE	0.13	U	
CARBON TETRACHLORIDE	0.13	U	
CHLOROBENZENE	0.15	U	
CHLORODIBROMOMETHANE	0.18	U	
CHLOROETHANE	0.29	U	
CHLOROFORM	0.16	U	
CHLOROMETHANE	0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U	
DIBROMOMETHANE	0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U	
DIISOPROPYL ETHER	1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U	
ETHYLBENZENE	0.17	U	
HEXACHLOROBUTADIENE	0.3	U	
ISOPROPYLBENZENE	0.13	U	
M+P-XYLENES	0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U	
METHYLENE CHLORIDE	0.33	U	
NAPHTHALENE	0.24	U	
N-BUTYLBENZENE	0.12	U	
N-PROPYLBENZENE	0.14	U	
O-XYLENE	0.14	U	
SEC-BUTYLBENZENE	0.13	U	
STYRENE	0.11	U	
TERT-AMYL METHYL ETHER	0.067	U	
TERT-BUTYLBENZENE	0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C
TETRACHLOROETHENE	0.29	U	
TOLUENE	0.13	U	
TOTAL XYLENES	0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U	
TRICHLOROETHENE	0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U	

PROJ_NO: 02903	NSAMPLE	TB
SDG: C0J010569	LAB_ID	C0J010569005
FRACTION: OV	SAMP_DATE	9/29/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
VINYL ACETATE	0.19	UR	C
VINYL CHLORIDE	0.22	U	

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0J010569-001	**Work Order #...:** L7VVF1AA	**Matrix.....:** WATER
Date Sampled...: 09/29/10	**Date Received..:** 10/01/10	**MS Run #.....:** 0285072
Prep Date.....: 10/11/10	**Analysis Date..:** 10/11/10	
Prep Batch #...: 0285139	**Analysis Time..:** 13:28	
Dilution Factor: 2.5	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX15	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**140**	**12**	**ug/L**	**2.8**
Bromobenzene	ND	2.5	ug/L	0.32
Bromochloromethane	ND	2.5	ug/L	0.72
Bromodichloromethane	ND	2.5	ug/L	0.38
2-Butanone	**120**	**12**	**ug/L**	**1.4**
n-Butylbenzene	ND	2.5	ug/L	0.30
sec-Butylbenzene	ND	2.5	ug/L	0.32
tert-Butylbenzene	ND	2.5	ug/L	0.32
Carbon disulfide	ND	2.5	ug/L	0.32
Dibromochloromethane	ND	2.5	ug/L	0.45
1,2-Dibromo-3-chloro-propane	ND	5.0	ug/L	1.7
2-Chloroethyl vinyl ether	ND	12	ug/L	2.5
2-Chlorotoluene	ND	2.5	ug/L	0.28
4-Chlorotoluene	ND	2.5	ug/L	0.45
1,2-Dibromoethane	ND	2.5	ug/L	0.60
Dibromomethane	ND	2.5	ug/L	0.70
1,2-Dichlorobenzene	ND	2.5	ug/L	0.32
1,3-Dichlorobenzene	ND	2.5	ug/L	0.35
1,4-Dichlorobenzene	ND	2.5	ug/L	0.32
Dichlorodifluoromethane	ND	2.5	ug/L	0.78
cis-1,2-Dichloroethene	ND	2.5	ug/L	0.42
trans-1,2-Dichloroethene	ND	2.5	ug/L	0.48
1,3-Dichloropropane	ND	2.5	ug/L	0.40
2,2-Dichloropropane	ND	2.5	ug/L	0.32
1,1-Dichloropropene	ND	2.5	ug/L	0.32
Trichlorofluoromethane	ND	2.5	ug/L	0.52
Hexachlorobutadiene	ND	2.5	ug/L	0.75
2-Hexanone	ND	12	ug/L	1.0
Isopropylbenzene	ND	2.5	ug/L	0.32
p-Isopropyltoluene	ND	2.5	ug/L	0.30
tert-Butyl alcohol	ND	50	ug/L	9.8
4-Methyl-2-pentanone	ND	12	ug/L	0.80
Naphthalene	ND	2.5	ug/L	0.60
n-Propylbenzene	ND	2.5	ug/L	0.35
Styrene	ND	2.5	ug/L	0.28
1,1,1,2-Tetrachloroethane	ND	2.5	ug/L	0.58

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Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0J010569-001 **Work Order #...:** L7VVF1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	2.5	ug/L	0.42
1,2,4-Trichloro-benzene	ND	2.5	ug/L	0.38
1,2,3-Trichloropropane	ND	2.5	ug/L	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.5	ug/L	0.70
1,2,4-Trimethylbenzene	ND	2.5	ug/L	0.30
Vinyl acetate	ND	5.0	ug/L	0.48
o-Xylene	ND	2.5	ug/L	0.35
Xylenes (total)	ND	5.0	ug/L	0.70
Methyl tert-butyl ether	ND	12	ug/L	0.42
m-Xylene & p-Xylene	ND	5.0	ug/L	0.60
1,2,3-Trimethylbenzene	ND	12	ug/L	0.015
Diisopropyl Ether (DIPE)	ND	12	ug/L	3.8
Ethyl-t-Butyl Ether (ETBE)	ND	12	ug/L	0.28
Tert-amyl methyl ether (TAME)	ND	12	ug/L	0.17
Benzene	ND	2.5	ug/L	0.32
Bromoform	ND	2.5	ug/L	1.6
Bromomethane	ND	2.5	ug/L	1.0
Carbon tetrachloride	ND	2.5	ug/L	0.32
Chlorobenzene	ND	2.5	ug/L	0.38
Chloroethane	ND	2.5	ug/L	0.72
Chloroform	ND	2.5	ug/L	0.40
Chloromethane	ND	2.5	ug/L	0.75
1,1-Dichloroethane	ND	2.5	ug/L	0.38
1,2-Dichloroethane	ND	2.5	ug/L	0.55
1,1-Dichloroethene	ND	2.5	ug/L	0.48
1,2-Dichloropropane	ND	2.5	ug/L	0.45
cis-1,3-Dichloropropene	ND	2.5	ug/L	0.35
trans-1,3-Dichloropropene	ND	2.5	ug/L	0.48
Ethylbenzene	ND	2.5	ug/L	0.42
Methylene chloride	ND	2.5	ug/L	0.82
1,1,2,2-Tetrachloroethane	ND	2.5	ug/L	0.45
Tetrachloroethene	ND	2.5	ug/L	0.72
Toluene	ND	2.5	ug/L	0.32
1,1,1-Trichloroethane	ND	2.5	ug/L	0.55
Trichloroethene	ND	2.5	ug/L	0.42
Vinyl chloride	ND	2.5	ug/L	0.55

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-002	**Work Order #...:** L7VVH1AA	**Matrix.....:** WATER
Date Sampled...: 09/29/10	**Date Received..:** 10/01/10	**MS Run #.....:** 0285125
Prep Date.....: 10/10/10	**Analysis Date..:** 10/10/10	
Prep Batch #...: 0285220	**Analysis Time..:** 15:35	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 043582	**Instrument ID..:** UX15	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**17 B**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	**3.0 J**	**5.0**	**ug/L**	**0.57**
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	**0.24 J**	**1.0**	**ug/L**	**0.17**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-002 **Work Order #...:** L7VVH1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	**0.25 J**	**1.0**	**ug/L**	**0.15**
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	**0.55 J**	**1.0**	**ug/L**	**0.22**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: CPC-PW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-002 Work Order #...: L7VVH1AA Matrix.....: WATER

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...:	C0J010569-003	**Work Order #...:**	L7VVK1AA	**Matrix.....:**	WATER
Date Sampled...:	09/29/10	**Date Received..:**	10/01/10	**MS Run #.....:**	0285125
Prep Date.....:	10/10/10	**Analysis Date..:**	10/10/10		
Prep Batch #...:	0285220	**Analysis Time..:**	15:58		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	043582	**Instrument ID..:**	UX15		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**6.4 B**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0J010569-003 **Work Order #...:** L7VVK1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

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Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-2

GC/MS Volatiles

Lot-Sample #...: C0J010569-003 **Work Order #...:** L7VVK1AA **Matrix.....:** WATER

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-004	**Work Order #...:** L7VVL1AA	**Matrix.....:** WATER	
Date Sampled...: 09/29/10	**Date Received..:** 10/01/10	**MS Run #.....:** 0285125	
Prep Date.....: 10/10/10	**Analysis Date..:** 10/10/10		
Prep Batch #...: 0285220	**Analysis Time..:** 16:21		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
Analyst ID.....: 043582	**Instrument ID..:** UX15		
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**8.6 B**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

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Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-004 **Work Order #...:** L7VVL1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: CPC-SW-VOC-3

GC/MS Volatiles

Lot-Sample #...: C0J010569-004 Work Order #...: L7VVL1AA Matrix.....: WATER

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: C0J010569-005	**Work Order #...:** L7VV11AA	**Matrix.....:** WATER	
Date Sampled...: 09/29/10	**Date Received..:** 10/01/10	**MS Run #.....:** 0285125	
Prep Date.....: 10/10/10	**Analysis Date..:** 10/10/10		
Prep Batch #...: 0285220	**Analysis Time..:** 16:44		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
Analyst ID.....: 043582	**Instrument ID..:** UX15		
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**27 B**	**5.0**	**ug/L**	**1.1**
Bromobenzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
2-Butanone	ND	5.0	ug/L	0.57
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon disulfide	ND	1.0	ug/L	0.13
Dibromochloromethane	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.67
2-Chloroethyl vinyl ether	ND	5.0	ug/L	0.99
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
Trichlorofluoromethane	ND	1.0	ug/L	0.21
Hexachlorobutadiene	ND	1.0	ug/L	0.30
2-Hexanone	ND	5.0	ug/L	0.41
Isopropylbenzene	ND	1.0	ug/L	0.13
p-Isopropyltoluene	ND	1.0	ug/L	0.12
tert-Butyl alcohol	ND	20	ug/L	3.9
4-Methyl-2-pentanone	ND	5.0	ug/L	0.32
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: C0J010569-005 **Work Order #...:** L7VV11AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.28
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
Vinyl acetate	ND	2.0	ug/L	0.19
o-Xylene	ND	1.0	ug/L	0.14
Xylenes (total)	ND	2.0	ug/L	0.28
Methyl tert-butyl ether	ND	5.0	ug/L	0.17
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
1,2,3-Trimethylbenzene	ND	5.0	ug/L	0.0059
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	1.5
Ethyl-t-Butyl Ether (ETBE)	ND	5.0	ug/L	0.11
Tert-amyl methyl ether (TAME)	ND	5.0	ug/L	0.067
Benzene	ND	1.0	ug/L	0.13
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.14
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.19
Ethylbenzene	ND	1.0	ug/L	0.17
Methylene chloride	ND	1.0	ug/L	0.33
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: C0J010569-005 Work Order #...: L7VV11AA Matrix.....: WATER

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Appendix C

Support Documentation

CASE NARRATIVE
TETRA TECH NUS, INC.
Middle River, MD

Lot #: C0J010569

Sample Receiving:
TestAmerica's Pittsburgh laboratory received samples on October 1, 2010. The cooler was received within the proper temperature range.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Volatiles:
TestAmerica's North Canton laboratory performed the VOA analysis. All data is included in the package.

Due to the concentration of target compounds detected, sample CPC-PW-VOC-2 was analyzed at a dilution.

The laboratory control standard for batch 0285139 was flagged as being outside of the control limits for chlorobenzene. The laboratory control duplicate for this batch was flagged as being outside of the control limits for toluene and chlorobenzene. The limits in the data system were updated prior to data entry. The compounds did recover within the control limits prior to the update.

The method blank for batch 0285220 had tert-butyl-alcohol and acetone detected between the MDL and the reporting limits. The results were flagged with a "J" qualifier. Any sample in this batch that had these compounds detected had the results flagged with a "B" qualifier.

METHODS SUMMARY

C0J010569

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C0J010569

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L7VVF	001	CPC-PW-VOC-2	09/29/10	09:50
L7VVH	002	CPC-PW-VOC-3	09/29/10	
L7VVK	003	CPC-SW-VOC-2	09/29/10	
L7VVL	004	CPC-SW-VOC-3	09/29/10	
L7VV1	005	TB	09/29/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

C0J010569

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Tetra-Tech Nus	Project Manager: Mike Martin	Date: 9/29/10	Chain of Custody Number: 154252
Address: 20251 Century Blvd Ste 2000	Telephone Number (Area Code)/Fax Number: 301 528 3022	Lab Number:	Page ____ of ____
City: Germantown; State: MD; Zip Code: 20874	Site Contact: Tony Apanavage; Lab Contact: Veronica Bontot		
Project Name and Location (State): MRC Sediment Middle River, MD	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed): VOCs - 8260; 1,4 Dioxane 8270 SIM

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOC	8270 SIM	Special Instructions/ Conditions of Receipt
CPC-PW-VOC-2	9/29/10	9:50		X						X			X	X	1 vial
CPC-PW-VOC-3															1 vial
CPC-SW-VOC-2															2 vials
CPC-SW-VOC-3															2 vials
TB															

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Per contract

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Rick Samuels	9/30/10	1420	1. Received By: [signature]	9/30/10	1420
2. Relinquished By: [signature]	9/30/10	1530	2. Received By:		
3. Relinquished By:			3. Received By: [signature]	10/1/10	1000

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

HOLDTIME

SDG C0J010569

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	TB	C0J010569005	SUR	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	TB	C0J010569005	NM	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-SW-VOC-3	C0J010569004	SUR	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-SW-VOC-3	C0J010569004	NM	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-SW-VOC-2	C0J010569003	SUR	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-SW-VOC-2	C0J010569003	NM	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-PW-VOC-3	C0J010569002	SUR	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-PW-VOC-3	C0J010569002	NM	09/29/2010	10/10/2010	10/10/2010	11	0	11
OV	UG/L	CPC-PW-VOC-2	C0J010569001	SUR	09/29/2010	10/11/2010	10/11/2010	12	0	12
OV	UG/L	CPC-PW-VOC-2	C0J010569001	NM	09/29/2010	10/11/2010	10/11/2010	12	0	12

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0J010569

Lab File ID: BFB494 BFB Injection Date: 09/09/10

Instrument ID: A3UX15 BFB Injection Time: 0915

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	45.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.5 (0.5)1
174	50.0 - 100.0% of mass 95	87.4
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	84.2 (96.3)1
177	5.0 - 9.0% of mass 176	5.3 (6.2)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD040	200NG-IC	UXC0996	09/09/10	1002
02	VSTD020	100NG-IC	UXC0997	09/09/10	1025
03	VSTD010	50NG-IC	UXC0998	09/09/10	1048
04	VSTD005	25NG-IC	UXC0999	09/09/10	1110
05	VSTD002	10NG-IC	UXC1000	09/09/10	1133
06	VSTD001	5NG-IC	UXC1001	09/09/10	1155
07	VSTD040	200NG-A9IC	UXC1003	09/09/10	1239
08	VSTD020	100NG-A9IC	UXC1004	09/09/10	1302
09	VSTD010	50NG-A9IC	UXC1005	09/09/10	1324
10	VSTD005	25NG-A9IC	UXC1006	09/09/10	1347
11	VSTD002	10NG-A9IC	UXC1007	09/09/10	1410
12	VSTD001	5NG-A9IC	UXC1008	09/09/10	1433
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Report Date : 13-Sep-2010 08:32

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2010 08:17
End Cal Date : 09-SEP-2010 14:33
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\8260LLUX15.m
Last Edit : 09-Sep-2010 14:55 evansl
Curve Type : Average

Calibration File Names:
Level 1: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1008.D
Level 2: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1007.D
Level 3: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1006.D
Level 4: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1005.D
Level 5: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1004.D
Level 6: \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\UXC1003.D

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD
	8 Dichlorodifluoromethane	0.17826	0.18237	0.16747	0.17205	0.17372	0.16218	0.17268	4.208
	9 Chloromethane	0.37654	0.35861	0.35398	0.30865	0.32345	0.29750	0.33645	9.270
	10 Vinyl Chloride	0.26616	0.24115	0.24188	0.23870	0.23818	0.22453	0.24177	5.595
	11 Bromomethane	0.09999	0.09821	0.08468	0.07558	0.08426	0.07278	0.08592	13.095
	12 Chloroethane	0.14624	0.12759	0.12232	0.10875	0.11565	0.10475	0.12088	12.407
	13 Trichlorofluoromethane	0.28349	0.27024	0.26062	0.25212	0.26629	0.24030	0.26218	5.704
	14 Dichlorofluoromethane	0.31496	0.35430	0.34735	0.30885	0.33143	0.34005	0.33282	5.409
	15 Acrolein	0.03182	0.03203	0.03034	0.02907	0.02953	0.02895	0.03029	4.486
	16 Acetone	0.11240	0.07745	0.08076	0.07315	0.07335	0.07171	0.08147	19.047
	17 1,1-Dichloroethene	0.26494	0.24013	0.23476	0.22987	0.23197	0.22185	0.23725	6.254
	18 Freon-113	0.20486	0.15768	0.17367	0.17233	0.17885	0.17017	0.17626	8.895
	19 Iodomethane	0.48203	0.44706	0.43909	0.43904	0.43860	0.43224	0.44634	4.056
	20 Carbon Disulfide	0.75348	0.69790	0.71210	0.71005	0.72070	0.70647	0.71678	2.714
	21 Methylene Chloride	0.47940	0.35384	0.28842	0.26995	0.26513	0.24915	0.31765	27.464
	22 Acetonitrile	0.03379	0.03071	0.02802	0.02699	0.02701	0.02514	0.02861	10.914
	23 Acrylonitrile	0.10610	0.08839	0.08779	0.08152	0.08398	0.08087	0.08811	10.609
	24 Methyl tert-butyl ether	0.65560	0.59306	0.58067	0.57728	0.57375	0.56161	0.59033	5.685
	25 trans-1,2-Dichloroethene	0.31517	0.27576	0.27357	0.26577	0.27005	0.26030	0.27677	7.086
	26 Hexane	0.06949	0.04964	0.04890	0.04983	0.05311	0.04972	0.05345	14.956
	27 Vinyl acetate	0.32158	0.29332	0.30255	0.31542	0.33916	0.35159	0.32060	6.837
	28 1,1-Dichloroethane	0.53632	0.48615	0.49799	0.48573	0.49491	0.48374	0.49747	3.991
	29 tert-Butyl Alcohol	0.01821	0.01635	0.01647	0.01590	0.01597	0.01402	0.01615	8.306
	30 2-Butanone	0.08880	0.08067	0.08065	0.08094	0.08557	0.08783	0.08408	4.510
M	31 1,2-Dichloroethene (total)	0.31741	0.28025	0.28095	0.27618	0.27783	0.26818	0.28347	6.085
	32 cis-1,2-dichloroethene	0.31965	0.28474	0.28832	0.28660	0.28561	0.27606	0.29016	5.191
	33 2,2-Dichloropropane	0.34176	0.29788	0.30150	0.29453	0.30229	0.28759	0.30426	6.290
	34 Bromochloromethane	0.15366	0.13760	0.13771	0.13548	0.13791	0.13481	0.13953	5.048
	35 Chloroform	0.47121	0.43865	0.42346	0.43222	0.43170	0.42782	0.43751	3.945

Report Date : 13-Sep-2010 08:32

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2010 08:17
End Cal Date : 09-SEP-2010 14:33
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\8260LLUX15.m
Last Edit : 09-Sep-2010 14:55 evansl
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	36 Tetrahydrofuran	0.08645	0.05770	0.05949	0.05665	0.05674	0.05719	0.06237	18.989	
	37 1,1,1-Trichloroethane	0.41965	0.37084	0.37319	0.37578	0.37755	0.36750	0.38075	5.091	
	38 1,1-Dichloropropene	0.34579	0.31702	0.32275	0.32082	0.32213	0.32615	0.32578	3.143	
	39 Carbon Tetrachloride	0.34341	0.31084	0.33068	0.33201	0.34680	0.34282	0.33442	3.968	
	40 1,2-Dichloroethane	0.37323	0.33653	0.33191	0.34215	0.35469	0.35545	0.34899	4.356	
	41 Benzene	1.11171	0.96776	0.92799	0.92638	0.96158	0.98167	0.97951	6.987	
	42 Trichloroethene	0.32016	0.27037	0.27168	0.27267	0.28421	0.28370	0.28380	6.636	
	43 1,2-Dichloropropane	0.26748	0.22970	0.23696	0.23856	0.24599	0.25045	0.24486	5.407	
	44 1,4-Dioxane	0.00223	0.00206	0.00178	0.00181	0.00185	0.00134	0.00184	16.358	<-
	45 Dibromomethane	0.13563	0.11835	0.11795	0.11933	0.12427	0.12455	0.12335	5.420	
	46 Bromodichloromethane	0.26602	0.23924	0.24309	0.26451	0.27678	0.28923	0.26314	7.310	
	47 2-Chloroethyl vinyl ether	0.08625	0.07817	0.08118	0.09410	0.10323	0.11306	0.09267	14.581	
	48 cis-1,3-Dichloropropene	0.27946	0.24880	0.27202	0.29892	0.32464	0.34264	0.29441	11.830	
	49 4-Methyl-2-pentanone	0.17219	0.16198	0.16750	0.17491	0.18678	0.19245	0.17597	6.586	
	50 Toluene	1.49585	1.36379	1.37467	1.37486	1.41720	1.41094	1.40622	3.477	
	51 trans-1,3-Dichloropropene	0.29309	0.28499	0.29543	0.32753	0.35173	0.36217	0.31916	10.289	
	52 Ethyl Methacrylate	0.25444	0.25367	0.24539	0.26109	0.27419	0.26872	0.25958	4.084	
	53 1,1,2-Trichloroethane	0.22766	0.20546	0.20853	0.21145	0.21426	0.20854	0.21265	3.731	
	54 1,3-Dichloropropane	0.36480	0.33774	0.34165	0.35827	0.36599	0.36208	0.35509	3.458	
	55 Tetrachloroethene	0.32904	0.27571	0.29312	0.28669	0.28600	0.27029	0.29014	7.153	
	56 2-Hexanone	0.14233	0.14780	0.13765	0.14999	0.15259	0.15067	0.14684	3.893	
	57 Dibromochloromethane	0.23328	0.22316	0.22967	0.24184	0.26606	0.26998	0.24400	8.033	
	58 1,2-Dibromoethane	0.21019	0.18561	0.19302	0.20881	0.21336	0.21337	0.20406	5.780	
	59 Chlorobenzene	0.98308	0.89128	0.88875	0.88560	0.91765	0.91050	0.91281	4.025	
	60 1,1,1,2-Tetrachloroethane	0.34778	0.32735	0.34947	0.34332	0.35105	0.33916	0.34302	2.572	
	61 Ethylbenzene	0.54232	0.47637	0.48531	0.49011	0.49284	0.48267	0.49493	4.833	
	62 m + p-Xylene	0.67162	0.61970	0.61762	0.61047	0.61670	0.60599	0.62368	3.853	
M	63 Xylenes (total)	0.67366	0.62415	0.62616	0.61261	0.61716	0.60001	0.62563	4.048	
	64 Xylene-o	0.67773	0.63305	0.64323	0.61690	0.61808	0.58803	0.62950	4.785	
	65 Styrene	0.97770	0.91546	0.90836	0.92141	0.96427	0.96054	0.94129	3.141	
	66 Bromoform	0.11324	0.12321	0.11618	0.13287	0.14288	0.14870	0.12951	11.139	
	67 Isopropylbenzene	1.69503	1.57175	1.64106	1.60046	1.64525	1.64306	1.63277	2.595	
	68 1,1,2,2-Tetrachloroethane	0.47198	0.41501	0.43037	0.44856	0.44440	0.43718	0.44125	4.337	
	69 1,4-Dichloro-2-butene	0.14345	0.12837	0.12079	0.13774	0.15448	0.16073	0.14093	10.787	
	70 1,2,3-Trichloropropane	0.14441	0.15092	0.14100	0.15036	0.14949	0.14552	0.14695	2.681	
	71 Bromobenzene	0.67626	0.64011	0.64726	0.66731	0.67497	0.66797	0.66231	2.271	

Report Date : 13-Sep-2010 08:32

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2010 08:17
End Cal Date : 09-SEP-2010 14:33
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\8260LLUX15.m
Last Edit : 09-Sep-2010 14:55 evansl
Curve Type : Average

Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	___ RRF	% RSD	
72 n-Propylbenzene	0.76976	0.68426	0.72254	0.75958	0.78215	0.77132	0.74827	5.010	
73 2-Chlorotoluene	0.73623	0.68787	0.68297	0.69712	0.71296	0.70263	0.70330	2.748	
74 1,3,5-Trimethylbenzene	2.21827	2.07260	2.25803	2.33051	2.42448	2.51154	2.30257	6.764	
75 4-Chlorotoluene	0.73770	0.65132	0.67344	0.68430	0.69540	0.69306	0.68920	4.161	
76 tert-Butylbenzene	1.89406	1.78128	1.99075	2.11698	2.22495	2.28110	2.04819	9.480	
77 1,2,4-Trimethylbenzene	2.40229	2.24100	2.28043	2.38485	2.49109	2.56890	2.39476	5.164	
78 sec-Butylbenzene	2.72755	2.47426	2.71828	2.84375	2.97088	3.11541	2.80835	7.934	
79 4-Isopropyltoluene	2.38884	2.20572	2.37241	2.49050	2.61704	2.74394	2.46974	7.747	
80 1,3-Dichlorobenzene	1.53961	1.36236	1.32584	1.36674	1.36135	1.37839	1.38905	5.459	
81 1,4-Dichlorobenzene	1.57748	1.38357	1.32472	1.37215	1.37041	1.40787	1.40603	6.276	
82 n-Butylbenzene	2.16850	1.90646	2.01890	2.08873	2.17292	2.23638	2.09865	5.748	
83 1,2-Dichlorobenzene	1.56601	1.38028	1.33174	1.32561	1.32958	1.33950	1.37879	6.809	
84 1,2-Dibromo-3-chloropropane	0.11010	0.09477	0.09830	0.10274	0.10215	0.10467	0.10212	5.169	
85 1,2,4-Trichlorobenzene	1.22334	1.16261	1.12676	1.10925	1.07833	1.00821	1.11808	6.556	
86 Hexachlorobutadiene	0.49303	0.41843	0.42204	0.42304	0.41206	0.37426	0.42381	9.088	
87 Naphthalene	2.49079	2.35364	2.38251	2.38065	2.32562	2.15148	2.34745	4.736	
88 1,2,3-Trichlorobenzene	1.13964	1.08352	1.04455	1.01519	0.95854	0.83320	1.01244	10.574	
89 Ethyl Ether	0.23018	0.22835	0.21743	0.21247	0.21923	0.21872	0.22106	3.082	
90 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
91 3-Chloropropene	0.14058	0.14048	0.13704	0.14125	0.14450	0.14924	0.14218	2.949	
92 Isopropyl Ether	0.23055	0.22682	0.22603	0.22197	0.22813	0.22863	0.22702	1.288	
93 2-Chloro-1,3-butadiene	0.50597	0.49716	0.49082	0.49053	0.50362	0.51250	0.50010	1.759	
94 Propionitrile	0.03237	0.03035	0.02877	0.02754	0.02868	0.02799	0.02928	6.102	
95 Ethyl Acetate	0.15284	0.15846	0.14864	0.14323	0.15432	0.15088	0.15139	3.433	
96 Methacrylonitrile	0.14567	0.12579	0.13076	0.12389	0.12805	0.12959	0.13063	5.958	
97 Isobutanol	0.00983	0.00931	0.00868	0.00865	0.00892	0.00878	0.00903	5.096	<-
98 Cyclohexane	0.57222	0.45145	0.49514	0.49085	0.50533	0.48618	0.50019	7.947	
99 n-Butanol	0.00662	0.00663	0.00694	0.00665	0.00705	0.00600	0.00665	5.527	<-
100 Methyl Methacrylate	0.15314	0.14686	0.13780	0.13925	0.14939	0.14849	0.14582	4.138	
101 2-Nitropropane	0.03514	0.03234	0.03049	0.03105	0.03476	0.03842	0.03370	8.873	
102 Chloropicrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
103 Cyclohexanone	0.01834	0.01698	0.01845	0.01746	0.01756	0.01699	0.01763	3.632	
104 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
105 Benzyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
134 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
135 Crotononitrile(1st Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Report Date : 13-Sep-2010 08:32

TestAmerica North Canton

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2010 08:17
End Cal Date : 09-SEP-2010 14:33
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP RTE
Method file : \\cansvr11\dd\chem\MSV\a3ux15.i\C00909A-IC.b\8260LLUX15.m
Last Edit : 09-Sep-2010 14:55 evansl
Curve Type : Average

	Compound	5.000 Level 1	10.000 Level 2	25.000 Level 3	50.000 Level 4	100.000 Level 5	200.000 Level 6	RRF	% RSD	
	136 Crotononitrile(2nd Isomer)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
M	137 Total Crotononitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	138 Paraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	139 3,3,5-Trimethylcyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	140 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	141 1,3,5-Trichlorobenzene	1.30759	1.19775	1.19985	1.18448	1.14979	1.11838	1.19297	5.395	
	143 Methyl Acetate	0.19433	0.18368	0.18099	0.18050	0.18119	0.17508	0.18263	3.499	
	144 Methylcyclohexane	0.44472	0.34792	0.38685	0.39118	0.40474	0.38654	0.39366	7.973	
	145 Dimethoxymethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	146 2-Methylnaphthalene	1.37295	0.95044	1.44755	1.48469	1.57655	1.62034	1.40875	17.140	
	147 Tetrahydrothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	148 1,4-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	151 Ethyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	152 Vinyl Acetate-86	0.02585	0.02798	0.02466	0.02587	0.02658	0.02803	0.02649	4.987	
	153 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	154 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	155 tert-Butyl Ethyl Ether	0.80997	0.82607	0.80315	0.80304	0.83968	0.87217	0.82568	3.261	
	156 tert-Amyl Methyl Ether	0.57533	0.56743	0.55176	0.55100	0.57869	0.60029	0.57075	3.248	
	157 1,2,3-Trimethylbezene	2.27576	2.17354	2.34365	2.26368	2.51464	2.70654	2.37963	8.258	
$	4 Dibromofluoromethane	0.26758	0.26151	0.24987	0.24587	0.25495	0.24453	0.25405	3.584	
$	5 1,2-Dichloroethane-d4	0.30378	0.27710	0.27543	0.26693	0.27522	0.26851	0.27783	4.809	
$	6 Toluene-d8	1.26674	1.21878	1.21614	1.17857	1.21694	1.17844	1.21260	2.691	
$	7 Bromofluorobenzene	0.48849	0.45719	0.42872	0.40514	0.42455	0.39849	0.43376	7.796	

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0J010569

Lab File ID: BFB512 BFB Injection Date: 10/10/10

Instrument ID: A3UX15 BFB Injection Time: 0805

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.7
75	30.0 - 60.0% of mass 95	52.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5 (0.7)1
174	50.0 - 100.0% of mass 95	74.9
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.3 (95.2)1
177	5.0 - 9.0% of mass 176	4.2 (5.9)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXC1511	10/10/10	0850
02	VSTD010	50NG-A9CC	UXC1512	10/10/10	0912
03	L8A09CHK	L8A091AC	UXC1513	10/10/10	0935
04	L8A09CKDUP	L8A091AD	UXC1514	10/10/10	0957
05	L8A09BLK	L8A091AA	UXC1515	10/10/10	1020
06	CPC-PW-VOC-3	L7VVH1AA	UXC1529	10/10/10	1535
07	CPC-SW-VOC-2	L7VVK1AA	UXC1530	10/10/10	1558
08	CPC-SW-VOC-3	L7VVL1AA	UXC1531	10/10/10	1621
09	TB	L7VV11AA	UXC1532	10/10/10	1644
10					
11					
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14					
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20					
21					
22					

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\UXC1511.D
Report Date: 10-Oct-2010 10:24

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 10-OCT-2010 08:50
Lab File ID: UXC1511.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.29441	0.24282	0.24282	0.010	17.52500	50.00000	Averaged
49 4-Methyl-2-pentanone	0.17597	0.22276	0.22276	0.010	-26.59265	50.00000	Averaged
50 Toluene	1.40622	1.26425	1.26425	0.010	10.09539	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.31916	0.25590	0.25590	0.010	19.82004	50.00000	Averaged
52 Ethyl Methacrylate	0.25958	0.25072	0.25072	0.010	3.41218	50.00000	Averaged
53 1,1,2-Trichloroethane	0.21265	0.21651	0.21651	0.010	-1.81551	50.00000	Averaged
54 1,3-Dichloropropane	0.35509	0.38532	0.38532	0.010	-8.51397	50.00000	Averaged
55 Tetrachloroethene	0.29014	0.23979	0.23979	0.010	17.35519	50.00000	Averaged
56 2-Hexanone	0.14684	0.19042	0.19042	0.010	-29.68171	50.00000	Averaged
57 Dibromochloromethane	0.24400	0.24567	0.24567	0.010	-0.68584	50.00000	Averaged
58 1,2-Dibromoethane	0.20406	0.21962	0.21962	0.010	-7.62691	50.00000	Averaged
59 Chlorobenzene	0.91281	0.82070	0.82070	0.300	10.09068	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.34302	0.30858	0.30858	0.010	10.04079	50.00000	Averaged
61 Ethylbenzene	0.49493	0.43178	0.43178	0.010	12.76100	20.00000	Averaged
62 m + p-Xylene	0.62368	0.54606	0.54606	0.010	12.44550	50.00000	Averaged
M 63 Xylenes (total)	0.62563	0.55043	0.55043	0.010	12.01868	50.00000	Averaged
64 Xylene-o	0.62950	0.55917	0.55917	0.010	11.17251	50.00000	Averaged
65 Styrene	0.94129	0.82015	0.82015	0.010	12.86942	50.00000	Averaged
66 Bromoform	0.12951	0.12588	0.12588	0.100	2.80926	50.00000	Averaged
67 Isopropylbenzene	1.63277	1.46641	1.46641	0.010	10.18894	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	0.44125	0.53715	0.53715	0.300	-21.73271	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.14093	0.08179	0.08179	0.010	41.96054	50.00000	Averaged
70 1,2,3-Trichloropropane	0.14695	0.17542	0.17542	0.010	-19.37381	50.00000	Averaged
71 Bromobenzene	0.66231	0.60842	0.60842	0.010	8.13749	50.00000	Averaged
72 n-Propylbenzene	0.74827	0.69421	0.69421	0.010	7.22473	50.00000	Averaged
73 2-Chlorotoluene	0.70330	0.64731	0.64731	0.010	7.96002	50.00000	Averaged
74 1,3,5-Trimethylbenzene	2.30257	2.16150	2.16150	0.010	6.12677	50.00000	Averaged
75 4-Chlorotoluene	0.68920	0.63594	0.63594	0.010	7.72840	50.00000	Averaged
76 tert-Butylbenzene	2.04819	1.95095	1.95095	0.010	4.74755	50.00000	Averaged
77 1,2,4-Trimethylbenzene	2.39476	2.30923	2.30923	0.010	3.57142	50.00000	Averaged
78 sec-Butylbenzene	2.80835	2.67703	2.67703	0.010	4.67615	50.00000	Averaged
79 4-Isopropyltoluene	2.46974	2.30899	2.30899	0.010	6.50896	50.00000	Averaged
80 1,3-Dichlorobenzene	1.38905	1.23643	1.23643	0.010	10.98751	50.00000	Averaged
81 1,4-Dichlorobenzene	1.40603	1.24441	1.24441	0.010	11.49511	50.00000	Averaged
82 n-Butylbenzene	2.09865	1.94940	1.94940	0.010	7.11143	50.00000	Averaged
83 1,2-Dichlorobenzene	1.37879	1.26384	1.26384	0.010	8.33655	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.10212	0.10305	0.10305	0.010	-0.90483	50.00000	Averaged
85 1,2,4-Trichlorobenzene	1.11808	0.90233	0.90233	0.010	19.29643	50.00000	Averaged
86 Hexachlorobutadiene	0.42381	0.30150	0.30150	0.010	28.85890	50.00000	Averaged
87 Naphthalene	2.34745	2.30418	2.30418	0.010	1.84331	50.00000	Averaged
88 1,2,3-Trichlorobenzene	1.01244	0.86453	0.86453	0.010	14.60957	50.00000	Averaged
98 Cyclohexane	0.50019	0.51292	0.51292	0.010	-2.54455	50.00000	Averaged
143 Methyl Acetate	0.18263	0.22656	0.22656	0.010	-24.05696	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\UXC1511.D
Report Date: 10-Oct-2010 10:24

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 10-OCT-2010 08:50
Lab File ID: UXC1511.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Dibromofluoromethane	0.25405	0.22158	0.22158	0.010	12.78169	50.00000	Averaged
$ 5 1,2-Dichloroethane-d4	0.27783	0.28702	0.28702	0.010	-3.30936	50.00000	Averaged
$ 6 Toluene-d8	1.21260	1.07564	1.07564	0.010	11.29515	50.00000	Averaged
$ 7 Bromofluorobenzene	0.43376	0.38138	0.38138	0.010	12.07605	50.00000	Averaged
8 Dichlorodifluoromethane	0.17268	0.17469	0.17469	0.010	-1.16601	50.00000	Averaged
9 Chloromethane	0.33645	0.35553	0.35553	0.100	-5.66983	50.00000	Averaged
10 Vinyl Chloride	0.24177	0.28108	0.28108	0.010	-16.26317	20.00000	Averaged
11 Bromomethane	0.08592	0.09123	0.09123	0.010	-6.18921	50.00000	Averaged
12 Chloroethane	0.12088	0.14963	0.14963	0.010	-23.78288	50.00000	Averaged
13 Trichlorofluoromethane	0.26218	0.24861	0.24861	0.010	5.17295	50.00000	Averaged
15 Acrolein	0.03029	0.03870	0.03870	0.010	-27.76941	50.00000	Averaged
16 Acetone	100	132	0.09737	0.010	-32.33716	0.000e+000	Wt Linear
17 1,1-Dichloroethene	0.23725	0.19455	0.19455	0.010	17.99847	20.00000	Averaged
18 Freon-113	0.17626	0.17068	0.17068	0.010	3.16629	50.00000	Averaged
19 Iodomethane	0.44634	0.34024	0.34024	0.010	23.77194	50.00000	Averaged
20 Carbon Disulfide	0.71678	0.56246	0.56246	0.010	21.53012	50.00000	Averaged
21 Methylene Chloride	50.00000	47.81238	0.25860	0.010	4.37524	0.000e+000	Wt Linear
22 Acetonitrile	0.02861	0.03505	0.03505	0.010	-22.49833	50.00000	Averaged
23 Acrylonitrile	0.08811	0.10376	0.10376	0.010	-17.76467	50.00000	Averaged
24 Methyl tert-butyl ether	0.59033	0.30623	0.30623	0.010	48.12609	50.00000	Averaged
25 trans-1,2-Dichloroethene	0.27677	0.23559	0.23559	0.010	14.87932	50.00000	Averaged
26 Hexane	0.05345	0.04868	0.04868	0.010	8.91902	20.00000	Averaged
27 Vinyl acetate	0.32060	0.34626	0.34626	0.010	-8.00382	50.00000	Averaged
28 1,1-Dichloroethane	0.49747	0.46890	0.46890	0.100	5.74333	50.00000	Averaged
29 tert-Butyl Alcohol	0.01615	0.01064	0.01064	0.010	34.12144	50.00000	Averaged
30 2-Butanone	0.08408	0.11259	0.11259	0.010	-33.91788	50.00000	Averaged
M 31 1,2-Dichloroethene (total)	0.28347	0.24531	0.24531	0.010	13.46088	50.00000	Averaged
32 cis-1,2-dichloroethene	0.29016	0.25503	0.25503	0.010	12.10743	50.00000	Averaged
33 2,2-Dichloropropane	0.30426	0.17690	0.17690	0.010	41.86027	50.00000	Averaged
34 Bromochloromethane	0.13953	0.12587	0.12587	0.010	9.78685	50.00000	Averaged
35 Chloroform	0.43751	0.40272	0.40272	0.010	7.95264	20.00000	Averaged
36 Tetrahydrofuran	50.00000	67.77761	0.07800	0.010	-35.55522	0.000e+000	Wt Linear
37 1,1,1-Trichloroethane	0.38075	0.31113	0.31113	0.010	18.28647	50.00000	Averaged
38 1,1-Dichloropropene	0.32578	0.30753	0.30753	0.010	5.59986	50.00000	Averaged
39 Carbon Tetrachloride	0.33442	0.28550	0.28550	0.010	14.63054	50.00000	Averaged
40 1,2-Dichloroethane	0.34899	0.38837	0.38837	0.010	-11.28346	50.00000	Averaged
41 Benzene	0.97951	0.88090	0.88090	0.010	10.06766	50.00000	Averaged
42 Trichloroethene	0.28380	0.24016	0.24016	0.010	15.37661	50.00000	Averaged
43 1,2-Dichloropropane	0.24486	0.23869	0.23869	0.010	2.51701	20.00000	Averaged
44 1,4-Dioxane	2500	3628	0.00277	0.010	-45.12263	0.000e+000	Quadratic <-
45 Dibromomethane	0.12335	0.12604	0.12604	0.010	-2.18226	50.00000	Averaged
46 Bromodichloromethane	0.26314	0.25744	0.25744	0.010	2.16847	50.00000	Averaged
47 2-Chloroethyl vinyl ether	0.09267	0.10115	0.10115	0.010	-9.15706	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\UXC1511.D
Report Date: 10-Oct-2010 10:24

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 10-OCT-2010 08:50
Lab File ID: UXC1511.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	0.39366	0.37869	0.37869	0.010	3.80239	50.00000	Averaged
141 1,3,5-Trichlorobenzene	1.19297	0.95023	0.95023	0.010	20.34781	50.00000	Averaged
152 Vinyl Acetate-86	0.02649	0.02242	0.02242	0.010	15.39360	50.00000	Averaged

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0J010569

Lab File ID: BFB513 BFB Injection Date: 10/11/10

Instrument ID: A3UX15 BFB Injection Time: 1001

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.2
75	30.0 - 60.0% of mass 95	51.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.5 (0.7)1
174	50.0 - 100.0% of mass 95	75.7
175	5.0 - 9.0% of mass 174	5.0 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	72.3 (95.6)1
177	5.0 - 9.0% of mass 176	4.8 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	50NG-CC	UXC1539	10/11/10	1044
02	VSTD010	50NG-A9CC	UXC1540	10/11/10	1106
03	L8AGJCHK	L8AGJ1AC	UXC1541	10/11/10	1129
04	L8AGJCKDUP	L8AGJ1AD	UXC1542	10/11/10	1152
05	L8AGJBLK	L8AGJ1AA	UXC1543	10/11/10	1214
06	CPC-PW-VOC-2	L7VVF1AA	UXC1546	10/11/10	1328
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22					

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\UXC1539.D
Report Date: 11-Oct-2010 11:59

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 11-OCT-2010 10:44
Lab File ID: UXC1539.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Dibromofluoromethane	0.25405	0.21934	0.21934	0.010	13.66146	50.00000	Averaged
$ 5 1,2-Dichloroethane-d4	0.27783	0.28081	0.28081	0.010	-1.07315	50.00000	Averaged
$ 6 Toluene-d8	1.21260	1.09000	1.09000	0.010	10.11090	50.00000	Averaged
$ 7 Bromofluorobenzene	0.43376	0.37698	0.37698	0.010	13.09109	50.00000	Averaged
8 Dichlorodifluoromethane	0.17268	0.17290	0.17290	0.010	-0.12836	50.00000	Averaged
9 Chloromethane	0.33645	0.34581	0.34581	0.100	-2.78106	50.00000	Averaged
10 Vinyl Chloride	0.24177	0.28614	0.28614	0.010	-18.35297	20.00000	Averaged
11 Bromomethane	0.08592	0.09096	0.09096	0.010	-5.87241	50.00000	Averaged
12 Chloroethane	0.12088	0.13384	0.13384	0.010	-10.71394	50.00000	Averaged
13 Trichlorofluoromethane	0.26218	0.25756	0.25756	0.010	1.76099	50.00000	Averaged
15 Acrolein	0.03029	0.03896	0.03896	0.010	-28.62344	50.00000	Averaged
16 Acetone	100	137	0.10044	0.010	-36.64817	0.000e+000	Wt Linear
17 1,1-Dichloroethene	0.23725	0.20509	0.20509	0.010	13.55528	20.00000	Averaged
18 Freon-113	0.17626	0.17993	0.17993	0.010	-2.08338	50.00000	Averaged
19 Iodomethane	0.44634	0.32662	0.32662	0.010	26.82311	50.00000	Averaged
20 Carbon Disulfide	0.71678	0.56413	0.56413	0.010	21.29763	50.00000	Averaged
21 Methylene Chloride	50.00000	47.81220	0.25860	0.010	4.37559	0.000e+000	Wt Linear
22 Acetonitrile	0.02861	0.03608	0.03608	0.010	-26.11623	50.00000	Averaged
23 Acrylonitrile	0.08811	0.10294	0.10294	0.010	-16.83039	50.00000	Averaged
24 Methyl tert-butyl ether	0.59033	0.28810	0.28810	0.010	51.19706	50.00000	Averaged<-
25 trans-1,2-Dichloroethene	0.27677	0.23458	0.23458	0.010	15.24488	50.00000	Averaged
26 Hexane	0.05345	0.05307	0.05307	0.010	0.70817	20.00000	Averaged
27 Vinyl acetate	0.32060	0.31243	0.31243	0.010	2.55025	50.00000	Averaged
28 1,1-Dichloroethane	0.49747	0.46856	0.46856	0.100	5.81175	50.00000	Averaged
29 tert-Butyl Alcohol	0.01615	0.00889	0.00889	0.010	44.97720	50.00000	Averaged<-
30 2-Butanone	0.08408	0.11877	0.11877	0.010	-41.26016	50.00000	Averaged
M 31 1,2-Dichloroethene (total)	0.28347	0.23941	0.23941	0.010	15.54063	50.00000	Averaged
32 cis-1,2-dichloroethene	0.29016	0.24425	0.24425	0.010	15.82227	50.00000	Averaged
33 2,2-Dichloropropane	0.30426	0.16144	0.16144	0.010	46.94088	50.00000	Averaged
34 Bromochloromethane	0.13953	0.12165	0.12165	0.010	12.81433	50.00000	Averaged
35 Chloroform	0.43751	0.39835	0.39835	0.010	8.95134	20.00000	Averaged
36 Tetrahydrofuran	50.00000	66.92807	0.07705	0.010	-33.85614	0.000e+000	Wt Linear
37 1,1,1-Trichloroethane	0.38075	0.30705	0.30705	0.010	19.35700	50.00000	Averaged
38 1,1-Dichloropropene	0.32578	0.31570	0.31570	0.010	3.09165	50.00000	Averaged
39 Carbon Tetrachloride	0.33442	0.28250	0.28250	0.010	15.52762	50.00000	Averaged
40 1,2-Dichloroethane	0.34899	0.38223	0.38223	0.010	-9.52313	50.00000	Averaged
41 Benzene	0.97951	0.87780	0.87780	0.010	10.38433	50.00000	Averaged
42 Trichloroethene	0.28380	0.24573	0.24573	0.010	13.41532	50.00000	Averaged
43 1,2-Dichloropropane	0.24486	0.24449	0.24449	0.010	0.15180	20.00000	Averaged
44 1,4-Dioxane	2500	1350	0.00121	0.010	45.98662	0.000e+000	Quadratic<-
45 Dibromomethane	0.12335	0.12590	0.12590	0.010	-2.06751	50.00000	Averaged
46 Bromodichloromethane	0.26314	0.25131	0.25131	0.010	4.49809	50.00000	Averaged
47 2-Chloroethyl vinyl ether	0.09267	0.10657	0.10657	0.010	-15.00434	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\UXC1539.D
Report Date: 11-Oct-2010 11:59

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 11-OCT-2010 10:44
Lab File ID: UXC1539.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
48 cis-1,3-Dichloropropene	0.29441	0.22855	0.22855	0.010	22.37267	50.00000	Averaged
49 4-Methyl-2-pentanone	0.17597	0.23635	0.23635	0.010	-34.31231	50.00000	Averaged
50 Toluene	1.40622	1.27215	1.27215	0.010	9.53408	20.00000	Averaged
51 trans-1,3-Dichloropropene	0.31916	0.24810	0.24810	0.010	22.26454	50.00000	Averaged
52 Ethyl Methacrylate	0.25958	0.24771	0.24771	0.010	4.57431	50.00000	Averaged
53 1,1,2-Trichloroethane	0.21265	0.21673	0.21673	0.010	-1.91657	50.00000	Averaged
54 1,3-Dichloropropane	0.35509	0.39617	0.39617	0.010	-11.56890	50.00000	Averaged
55 Tetrachloroethene	0.29014	0.25036	0.25036	0.010	13.71064	50.00000	Averaged
56 2-Hexanone	0.14684	0.20329	0.20329	0.010	-38.44154	50.00000	Averaged
57 Dibromochloromethane	0.24400	0.23555	0.23555	0.010	3.46222	50.00000	Averaged
58 1,2-Dibromoethane	0.20406	0.22230	0.22230	0.010	-8.93796	50.00000	Averaged
59 Chlorobenzene	0.91281	0.81679	0.81679	0.300	10.51942	50.00000	Averaged
60 1,1,1,2-Tetrachloroethane	0.34302	0.28772	0.28772	0.010	16.12236	50.00000	Averaged
61 Ethylbenzene	0.49493	0.43439	0.43439	0.010	12.23207	20.00000	Averaged
62 m + p-Xylene	0.62368	0.55442	0.55442	0.010	11.10561	50.00000	Averaged
M 63 Xylenes (total)	0.62563	0.55531	0.55531	0.010	11.23913	50.00000	Averaged
64 Xylene-o	0.62950	0.55709	0.55709	0.010	11.50332	50.00000	Averaged
65 Styrene	0.94129	0.81233	0.81233	0.010	13.70036	50.00000	Averaged
66 Bromoform	0.12951	0.12200	0.12200	0.100	5.80079	50.00000	Averaged
67 Isopropylbenzene	1.63277	1.48211	1.48211	0.010	9.22734	50.00000	Averaged
68 1,1,2,2-Tetrachloroethane	0.44125	0.51215	0.51215	0.300	-16.06789	50.00000	Averaged
69 1,4-Dichloro-2-butene	0.14093	0.08680	0.08680	0.010	38.40952	50.00000	Averaged
70 1,2,3-Trichloropropane	0.14695	0.16734	0.16734	0.010	-13.87756	50.00000	Averaged
71 Bromobenzene	0.66231	0.58590	0.58590	0.010	11.53670	50.00000	Averaged
72 n-Propylbenzene	0.74827	0.68773	0.68773	0.010	8.09082	50.00000	Averaged
73 2-Chlorotoluene	0.70330	0.62342	0.62342	0.010	11.35688	50.00000	Averaged
74 1,3,5-Trimethylbenzene	2.30257	2.15840	2.15840	0.010	6.26136	50.00000	Averaged
75 4-Chlorotoluene	0.68920	0.63207	0.63207	0.010	8.28976	50.00000	Averaged
76 tert-Butylbenzene	2.04819	1.96395	1.96395	0.010	4.11251	50.00000	Averaged
77 1,2,4-Trimethylbenzene	2.39476	2.21928	2.21928	0.010	7.32755	50.00000	Averaged
78 sec-Butylbenzene	2.80835	2.67806	2.67806	0.010	4.63945	50.00000	Averaged
79 4-Isopropyltoluene	2.46974	2.29520	2.29520	0.010	7.06736	50.00000	Averaged
80 1,3-Dichlorobenzene	1.38905	1.16343	1.16343	0.010	16.24257	50.00000	Averaged
81 1,4-Dichlorobenzene	1.40603	1.18918	1.18918	0.010	15.42281	50.00000	Averaged
82 n-Butylbenzene	2.09865	1.91748	1.91748	0.010	8.63240	50.00000	Averaged
83 1,2-Dichlorobenzene	1.37879	1.18910	1.18910	0.010	13.75777	50.00000	Averaged
84 1,2-Dibromo-3-chloropropane	0.10212	0.09110	0.09110	0.010	10.78893	50.00000	Averaged
85 1,2,4-Trichlorobenzene	1.11808	0.84131	0.84131	0.010	24.75466	50.00000	Averaged
86 Hexachlorobutadiene	0.42381	0.28806	0.28806	0.010	32.03146	50.00000	Averaged
87 Naphthalene	2.34745	2.10503	2.10503	0.010	10.32678	50.00000	Averaged
88 1,2,3-Trichlorobenzene	1.01244	0.80010	0.80010	0.010	20.97285	50.00000	Averaged
98 Cyclohexane	0.50019	0.55239	0.55239	0.010	-10.43485	50.00000	Averaged
143 Methyl Acetate	0.18263	0.22663	0.22663	0.010	-24.09344	50.00000	Averaged

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\UXC1539.D
Report Date: 11-Oct-2010 11:59

TestAmerica North Canton

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: a3ux15.i Injection Date: 11-OCT-2010 10:44
Lab File ID: UXC1539.D Init. Cal. Date(s): 17-MAY-2010 09-SEP-2010
Analysis Type: WATER Init. Cal. Times: 08:17 14:33
Lab Sample ID: 50NG-CC Quant Type: ISTD
Method: \\cansvr11\dd\chem\MSV\a3ux15.i\C01011A.b\8260LLUX15.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
144 Methylcyclohexane	0.39366	0.40785	0.40785	0.010	-3.60501	50.00000	Averaged
141 1,3,5-Trichlorobenzene	1.19297	0.88879	0.88879	0.010	25.49819	50.00000	Averaged
152 Vinyl Acetate-86	0.02649	0.02144	0.02144	0.010	19.08469	50.00000	Averaged

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L8AGJ1AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: UXC1543.D

Lot Number: C0J010569

Date Analyzed: 10/11/10

Time Analyzed: 12:14

Matrix: WATER

Date Extracted: 10/11/10

GC Column: DB624 ID: .18

Extraction Method: 5030B

Instrument ID: UX15

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CPC-PW-VOC-2	L7VVF1AA	UXC1546.D	10/11/10	13:28
02	INTRA-LAB QC	L7XQF1AA	UXC1547.D	10/11/10	13:51
03	LAB MS/MSD	L7XQF1AE S	UXC1565.D	10/11/10	20:32
04	LAB MS/MSD	L7XQF1AF D	UXC1566.D	10/11/10	20:55
05	CHECK SAMPLE	L8AGJ1AC C	UXC1541.D	10/11/10	11:29
06	DUPLICATE CHECK	L8AGJ1AD L	UXC1542.D	10/11/10	11:52
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COMMENTS:

FORM IV

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0J010569 **Work Order #...:** L8AGJ1AA **Matrix.....:** WATER
MB Lot-Sample #: A0J120000-139

Prep Date.....: 10/11/10 **Analysis Time..:** 12:14
Analysis Date..: 10/11/10 **Prep Batch #...:** 0285139 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Instrument ID..:** UX15
Analyst ID.....: 043582

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	5.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0J010569 **Work Order #...:** L8AGJ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Butanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
tert-Butyl alcohol	ND	20	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(75 - 121)
1,2-Dichloroethane-d4	102	(63 - 129)
Toluene-d8	86	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: L8A091AA

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALPIT

SDG Number:

Lab File ID: UXC1515.D

Lot Number: C0J010569

Date Analyzed: 10/10/10

Time Analyzed: 10:20

Matrix: WATER

Date Extracted:10/10/10

GC Column: DB624 ID: .18

Extraction Method: 5030B

Instrument ID: UX15

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	L7T2Q1AA	UXC1517.D	10/10/10	11:05
02	LAB MS/MSD	L7T2Q1AK S	UXC1537.D	10/10/10	18:36
03	LAB MS/MSD	L7T2Q1AL D	UXC1538.D	10/10/10	18:58
04	CPC-PW-VOC-3	L7VVH1AA	UXC1529.D	10/10/10	15:35
05	CPC-SW-VOC-2	L7VVK1AA	UXC1530.D	10/10/10	15:58
06	CPC-SW-VOC-3	L7VVL1AA	UXC1531.D	10/10/10	16:21
07	TB	L7VV11AA	UXC1532.D	10/10/10	16:44
08	CHECK SAMPLE	L8A091AC C	UXC1513.D	10/10/10	09:35
09	DUPLICATE CHECK	L8A091AD L	UXC1514.D	10/10/10	09:57
10					
11					
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COMMENTS:

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0J010569 **Work Order #...:** L8A091AA **Matrix.....:** WATER
MB Lot-Sample #: A0J120000-220

Prep Date.....: 10/10/10 **Analysis Time..:** 10:20
Analysis Date..: 10/10/10 **Prep Batch #...:** 0285220 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Instrument ID..:** UX15
Analyst ID.....: 043582

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2,3-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	5.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
tert-Butyl alcohol	**10 J**	**20**	**ug/L**	**SW846 8260B**
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0J010569 **Work Order #...:** L8A091AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Diisopropyl Ether (DIPE)	ND	5.0	ug/L	SW846 8260B
Ethyl-t-Butyl Ether (ETBE	ND	5.0	ug/L	SW846 8260B
Tert-amyl methyl ether (T	ND	5.0	ug/L	SW846 8260B
Acetone	**1.5 J**	**5.0**	**ug/L**	**SW846 8260B**
2-Butanone	ND	5.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(75 - 121)
1,2-Dichloroethane-d4	102	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	88	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C0J010569 **Work Order #...:** L8A091AA **Matrix.....:** WATER

NOTE(S):

J Estimated result. Result is less than RL.

SW846 8260B SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: C0J010569

Extraction: XXI25QK01

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	INTRA-LAB QC	82	100	88	89	00
02	CPC-PW-VOC-2	81	104	86	85	00
03	CPC-PW-VOC-3	81	102	85	83	00
04	CPC-SW-VOC-2	80	105	86	82	00
05	CPC-SW-VOC-3	80	104	84	83	00
06	TB	82	104	88	83	00
07	INTRA-LAB QC	82	103	87	85	00
08	METHOD BLK. L8AGJ1AA	81	102	86	85	00
09	METHOD BLK. L8A091AA	82	102	88	88	00
10	LCS L8AGJ1AC	85	102	89	90	00
11	LCS L8A091AC	87	100	89	89	00
12	LAB MS/MSD D	82	99	86	85	00
13	LAB MS/MSD D	82	97	87	87	00
14	LCSD L8AGJ1AD	83	102	87	90	00
15	LCSD L8A091AD	88	100	88	86	00
16	LAB MS/MSD S	85	100	90	89	00
17	LAB MS/MSD S	83	100	88	87	00

SURROGATES		QC LIMITS
SRG01	= Dibromofluoromethane	(75-121)
SRG02	= 1,2-Dichloroethane-d4	(63-129)
SRG03	= Toluene-d8	(74-115)
SRG04	= 4-Bromofluorobenzene	(66-117)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0J120000 WO #: L8AGJ1AC
BATCH: 0285139

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	8.47	85	78 - 131	
Trichloroethene	10.0	8.05	80	76 - 117	
Benzene	10.0	8.67	87	83 - 112	
Toluene	10.0	8.45	84	84 - 111	
Chlorobenzene	10.0	8.43	84*	85 - 110	a

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 1 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0J120000 WO #: L8AGJ1AD
BATCH: 0285139

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	8.02	80	78 - 131	
Trichloroethene	10.0	8.07	81	76 - 117	
Benzene	10.0	8.29	83	83 - 112	
Toluene	10.0	8.27	83*	84 - 111	a
Chlorobenzene	10.0	8.27	83*	85 - 110	a

NOTES(S):

a Spiked analyte recovery is outside stated control limits.

* Values outside of QC limits

Spike Recovery: 2 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0J120000 WO #: L8A091AC
BATCH: 0285220

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	8.82	88	78 - 131	
Trichloroethene	10.0	8.37	84	76 - 117	
Benzene	10.0	8.81	88	83 - 112	
Toluene	10.0	8.74	87	84 - 111	
Chlorobenzene	10.0	8.58	86	85 - 110	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

SW846 8260B CHECK SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Lot #: A0J120000 WO #: L8A091AD
BATCH: 0285220

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
1,1-Dichloroethene	10.0	8.46	85	78- 131	
Trichloroethene	10.0	8.47	85	76- 117	
Benzene	10.0	8.83	88	83- 112	
Toluene	10.0	8.53	85	84- 111	
Chlorobenzene	10.0	8.47	85	85- 110	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0J040428 WO #: L7XQF1AE
BATCH: 0285139

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	1430	ND	1130	79	74 - 135	
Trichloroethene	1430	ND	1210	85	66 - 120	
Benzene	1430	370	1680	92	72 - 121	
Toluene	1430	3200	4630	99	78 - 114	
Chlorobenzene	1430	ND	1280	90	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0J040428 WO #: L7XQF1AF
BATCH: 0285139

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	1430	1170	82	3.4	30	74 - 135	
Trichloroethene	1430	1190	83	2.2	30	66 - 120	
Benzene	1430	1680	92	0.49	30	72 - 121	
Toluene	1430	4650	101	0.43	30	78 - 114	
Chlorobenzene	1430	1270	89	0.53	30	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0J010482 WO #: L7T2Q1AK
BATCH: 0285220

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
1,1-Dichloroethene	33.3	ND	27.2	82	74 - 135	
Trichloroethene	33.3	ND	29.2	88	66 - 120	
Benzene	33.3	ND	32.0	96	72 - 121	
Toluene	33.3	1.6	32.8	93	78 - 114	
Chlorobenzene	33.3	ND	31.1	93	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Tetra Tech NUS, Inc

Lab Code: TALPIT SDG No:

Matrix Spike ID: LAB MS/MSD

Lot #: A0J010482 WO #: L7T2Q1AL
BATCH: 0285220

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,1-Dichloroethene	33.3	26.3	79	3.4	30	74 - 135	
Trichloroethene	33.3	27.2	82	7.2	30	66 - 120	
Benzene	33.3	29.5	89	8.1	30	72 - 121	
Toluene	33.3	29.5	84	11	30	78 - 114	
Chlorobenzene	33.3	27.8	84	11	30	80 - 110	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0J010569

Lab File ID (Standard): UXC1511 Date Analyzed: 10/10/10

Instrument ID: A3UX15 Time Analyzed: 0850

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 AREA #	RT	IS2 (CBZ) AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1368359	6.72	956593	9.43	526416	11.40
	UPPER LIMIT	2736718	7.22	1913186	9.93	1052832	11.90
	LOWER LIMIT	684180	6.22	478297	8.93	263208	10.90
	EPA SAMPLE NO.						
01	L8A09CHK	1321163	6.72	870395	9.43	495332	11.40
02	L8A09CKDUP	1329611	6.72	927602	9.43	517269	11.40
03	L8A09BLK	1297573	6.72	857998	9.43	495342	11.40
04	CPC-PW-VOC-3	1316344	6.72	911329	9.43	493386	11.40
05	CPC-SW-VOC-2	1314877	6.72	883474	9.43	471126	11.40
06	CPC-SW-VOC-3	1333638	6.72	909637	9.43	484702	11.40
07	TB	1299063	6.72	864414	9.43	454329	11.40
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: NORTH CANTON Contract:

Lab Code: TACAN Case No.: SAS No.: SDG No.: C0J010569

Lab File ID (Standard): UXC1539 Date Analyzed: 10/11/10

Instrument ID: A3UX15 Time Analyzed: 1044

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 AREA #	RT	IS2 (CBZ) AREA #	RT	IS3 (DCB) AREA #	RT
	12 HOUR STD	1311318	6.72	932071	9.43	528912	11.40
	UPPER LIMIT	2622636	7.22	1864142	9.93	1057824	11.90
	LOWER LIMIT	655659	6.22	466036	8.93	264456	10.90
	EPA SAMPLE NO.						
01	L8AGJCHK	1316013	6.72	925268	9.43	532944	11.40
02	L8AGJCKDUP	1376395	6.72	992562	9.43	548593	11.40
03	L8AGJBLK	1308176	6.72	882184	9.43	495702	11.40
04	CPC-PW-VOC-2	1270474	6.72	862442	9.43	481358	11.40
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = +100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

Data File: \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\UXC1529.D
Report Date: 12-Oct-2010 13:32

TestAmerica North Canton

VOLATILE REPORT SW-846 Method 8260A/B

Data file : \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\UXC1529.D
Lab Smp Id: L7VVH1AA Client Smp ID: CPC-PW-VOC-3
Inj Date : 10-OCT-2010 15:35
Operator : 43582 Inst ID: a3ux15.i
Smp Info : L7VVH1AA,5ML/5ML
Misc Info : C01010A,8260LLUX15,,43582
Comment :
Method : \\cansvr11\dd\chem\MSV\a3ux15.i\C01010A.b\8260LLUX15.m
Meth Date : 10-Oct-2010 10:24 a3ux15.i Quant Type: ISTD
Cal Date : 09-SEP-2010 14:33 Cal File: UXC1008.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 4-8260+IX.sub
Target Version: 4.14
Processing Host: CANSVR11

Sample PW-VOC-3
Vinyl chloride
rep result 0.55ug/L

Concentration Formula: Amt * DF * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample volume
Va	100.000	Injection Volume
Cpnd Variable		Local Compound Variable

$$\frac{(17548)(250)}{(328884)(0.2477)(100)}$$

0.55 ug/L

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
* 1 Fluorobenzene	96	6.717	6.717	(1.000)	1316344	50.0000	
* 2 Chlorobenzene-d5	117	9.433	9.433	(1.000)	911329	50.0000	
* 3 1,4-Dichlorobenzene-d4	152	11.402	11.402	(1.000)	493386	50.0000	
$ 4 Dibromofluoromethane	113	6.041	6.030	(0.899)	269546	40.3006	8.060
$ 5 1,2-Dichloroethane-d4	65	6.374	6.374	(0.949)	373336	51.0417	10.208
$ 6 Toluene-d8	98	8.188	8.188	(0.868)	942630	42.6499	8.530
$ 7 Bromofluorobenzene	95	10.429	10.429	(1.106)	328884	41.5993	8.320
8 Dichlorodifluoromethane	85	Compound Not Detected.					
9 Chloromethane	50	Compound Not Detected.					
10 Vinyl Chloride	62	1.666	1.666	(0.248)	17548	2.75698	0.5514
11 Bromomethane	94	Compound Not Detected.					
12 Chloroethane	64	Compound Not Detected.					
13 Trichlorofluoromethane	101	Compound Not Detected.					
15 Acrolein	56	Compound Not Detected.					
16 Acetone	43	3.077	3.077	(0.458)	164512	83.2459	16.649
17 1,1-Dichloroethene	96	Compound Not Detected.					
18 Freon-113	151	Compound Not Detected.					
19 Iodomethane	142	Compound Not Detected.					
20 Carbon Disulfide	76	Compound Not Detected.					
21 Methylene Chloride	84	Compound Not Detected.					

APPENDIX D—
ENVIRONMENTAL FORENSICS REPORT

Environmental Forensic Report





MRC Sediments and Storm Event Sampling

SDG: TT100819, TT100824, TT101015

Report To:

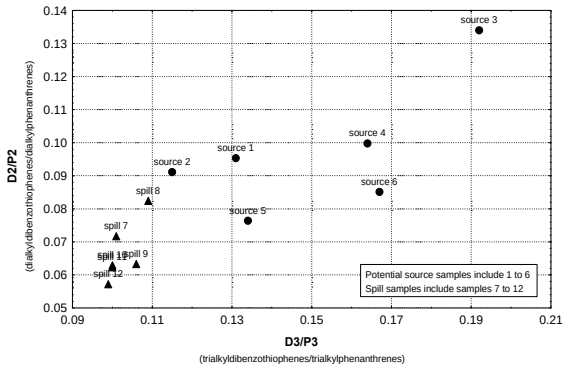
Tetra Tech
20251 Century Blvd.
Suite 200
Germantown, MD 20874

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

December 1, 2010

Figure 1. Double Ratio Plot



Identifying and allocating sources of pollutants in complex environments.

META Environmental, Inc.
ENGINEERING & CHEMISTRY

Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472
Phone: 617-923-4662
Fax: 617-923-4610
E-Mail meta@metaenv.com

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

New York Certification Number: 11886

Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. The results included in this data report relate only to the samples as received and analyzed by the laboratory.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager and Quality Assurance Officer, as verified by the following signatures.

James A. Roush — December 1, 2010
Environmental Scientist, Laboratory Manager

David M. Mauro — December 1, 2010
Senior Scientist, Quality Assurance Officer

Sample Delivery Group Narrative

Project:	MRC Sediments and Storm Event Sampling
Client	Tetra Tech NUS, Inc. 20251 Century Blvd., Suite 200 Germantown, MD 20874
Report Contact:	Mike Martin
Dates of Receipt:	8/19/2010, 8/24/2010, 10/15/2010
Sample Summary:	The samples received for this project are summarized in the attached sample login forms in Appendix A.
META Project Number:	T04015
SDG No.:	TT100819, TT100824, TT101015
Total Pages in Report:	400

Chain of Custody

The samples were received in good condition. The internal temperature of the shipping containers was within the recommended 0-6°C range and was as follows:

Samples received:	8/19/2010	0°C	Ice present
	8/24/2010	2.3°C	Ice present
	10/15/2010	0°C	Ice present

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page. The disposal of samples and extracts will be authorized one month after the release of this data report. Sample disposal will be documented.

Methods

The sediment samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The water samples were prepared by liquid/liquid solvent extraction (EPA 3511) also using DCM. The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds.

Results

Sample results are presented in several appendices which follow this narrative.

Appendix B: GC/FID Fingerprints
Appendix C: MAH/PAH Concentrations
Appendix D: Extended MAH/PAH Profiles - Histograms
Appendix E: Extracted Ion Current Profiles (EICPs)

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." Undetected analytes were reported as null and flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias.

Holding Times

All samples were extracted within holding times. The samples and extracts were stored at 4°C ± 2°C prior to extraction and analysis. The extracts were analyzed within 40 days of sample preparation.

Surrogate Spikes

Extraction surrogates were added to all samples prior to extraction. All surrogate compounds were recovered within the 50%-120% acceptable criterion with the following exceptions: perylene-d12 was over-recovered in all quality control and field samples in the aqueous batch. Recoveries ranged from 126-137%. Toluene-d8 was under-recovered in MRC-SED-1 and the laboratory duplicate of that sample at 48% and 40% respectively. The laboratory duplicate of sample MRC-SED-1 also had phenanthrene-d10 under-recovered at 45%. Finally soil blank QC101022-SB and soil blank spike QC101022-SBS had benzo(a)pyrene-d12 over-recovered at 132% and 128% respectively.

Blanks

Benzene, toluene, and styrene were detected just above the reporting limit (RL) in soil blank QC100824-SB, aqueous blank QC101020-AB1, and soil blank QC101022-SB. In addition, soil blank QC101022-SB had m/p-xylenes and heptadecane detected slightly above the RL. Detections of these compounds in field samples should be reviewed for potential positive bias.

Blank Spikes

A blank spike sample was extracted with each analytical batch. All spiked compounds were recovered within the 70 – 120% criterion in soil blank spike QC100824-SBS and aqueous blank

spike QC101020-ABS1. Soil blank spike QC101022-SBS has several MAHs under-recovered between 50-70%.

Duplicates

Samples SD-90-SS, MRC-SW-1, and MRC-SED-1 were extracted and analyzed in duplicate. Relative percent differences are reported with the sample results in Appendix C.

Internal Standards

GC/MS internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards.

Interpretation

Introduction

Fifteen sediment samples were received by META from the MRC Sediments site on August 19, 2010, and four additional sediment samples were received from the MRC Sediments site on August 24, 2010. Additionally, two stormwater runoff samples and one stormwater sediment sample were received on October 15th, 2010. The samples were analyzed for hydrocarbon fingerprints and an expanded list of MAHs and PAHs. This report summarizes the findings and compares the samples.

Sources of MAHs and PAHs in the Environment

Aromatic hydrocarbons include MAHs such as benzene, toluene, xylenes, and alkylated benzenes, and PAHs such as naphthalene, phenanthrene, and pyrene. MAHs and PAHs originate from many sources and exist at many sites. This section briefly reviews the sources of MAHs and PAHs in urban soils and sediment.

Crude petroleum, many of its refined products, coal, coal tar, and many coal tar products consist primarily of hydrocarbons. Hydrocarbons are organic molecules that are made up of only carbon and hydrogen atoms. Some simple hydrocarbons include hexane and benzene. There are several types of hydrocarbons that are commonly grouped by similar chemical structures, such as alkanes, cyclic alkanes, and aromatic hydrocarbons.

MAHs and PAHs are one group of hydrocarbons that are present at high relative amounts in crude oil, coal, coal tar, and many of their products. In environmental forensic chemistry and geochemistry, MAHs and PAHs are placed in subgroups according to their origins. These groups include diagenic, or recently produced, petrogenic, produced at relatively low temperatures over long periods of time, and pyrogenic, produced at high temperatures with a shortage of oxygen. Petrogenic PAHs are those found in crude oil and similar materials. Pyrogenic PAHs are those found in coal tar and related substances, and from the incomplete combustion of organic matter.

Some PAHs can be formed by natural biological and chemical processes at ambient temperatures. When present, these PAHs are found at very low concentrations. Further, these

PAHs are rarely the subjects of environmental investigations and few, if any, are regulated.

PAHs also can be formed at relatively low temperatures. In particular, crude oils contain MAHs and PAHs that formed over millions of years at temperatures as low as 100°C to 150°C. MAHs and PAHs formed during crude oil maturation and similar processes are called petrogenic. Similarly, coal was formed at low temperatures over long periods of time and therefore is included in the petrogenic group. Both crude oil and coal contain hundreds of different MAH and PAH compounds, including many that are the subject of environmental investigations and are regulated.

Petrogenic MAHs and PAHs have been released into urban environments from numerous anthropogenic sources over the past two centuries. For example, it has been a common practice to spray roads with oil to manage dust. Asphalt is produced from petroleum and the small particles that are created as roads wear away contain PAHs. Cars and trucks drip fuels and lubricating oils that contain petrogenic MAHs and PAHs. Many industries have stored and ultimately spilled petroleum products that range from gasoline to heavy oils. Further, the potential impacts from coal cannot be ignored. For many years, residential and commercial buildings were heated with coal and small amounts of coal and coal dust accumulated wherever coal was handled. All of these sources of petrogenic PAHs, and many others, contributed to a pervasive background of PAHs in urban settings. Because many releases occurred years ago at unanticipated locations and because soil was moved around as the urban environment expanded and was modified for various uses, it is difficult to predict where and at what levels MAHs and PAHs might be found.

Finally, MAHs and PAHs are formed whenever organic substances are exposed to high temperatures under low oxygen or no oxygen conditions in a process called pyrolysis. Pyrolytic processes occur intentionally, such as in the destructive distillation of coal into coke and coal tar, or the thermal cracking of petroleum residuals into lighter hydrocarbons and oil tar. Similar processes occur unintentionally, such as the incomplete combustion of motor fuels in cars and trucks, the incomplete combustion of wood in forest fires and fireplaces, and the incomplete combustion of fuel oils in heating systems. These processes occur at temperatures that range from about 350°C to more than 1200°C, and their products are called pyrogenic.

Like petrogenic MAHs and PAHs, pyrogenic MAHs and PAHs have been released into urban environments from numerous sources. These include some obvious sources, such as building fires and industrial smoke stacks. They also include less obvious sources, such as debris from coal tar-treated roofing and building materials. The incomplete combustion of gasoline and diesel fuel in cars, trucks, and buses produces substantial amounts of pyrogenic PAHs that attach to small particles and accumulate along roadsides. Any industry that utilized high temperatures in their operation probably produced PAHs. These included such industries as foundries, steel mills, coke plants, smelters, and others. Similar to petrogenic MAHs and PAHs, pyrogenic MAHs and PAHs accumulated in soil and are found throughout all urban areas.

Much modern gasoline is unusual in that it contains both petrogenic substances (the light distillate of crude oil) and pyrogenic substances (the light hydrocarbons from thermal cracking of oil). For the purposes of this report, all motor gasoline is considered petrogenic.

Composition of Pyrogenic and Petrogenic Materials

Both pyrogenic and petrogenic sources of PAHs have been found to contain hundreds of individual MAHs and PAH compounds in generally predictable patterns. For example, it is known that the temperature of formation of MAHs and PAHs largely determines the distribution of the various parent and alkylated PAHs. Variations in these MAH and PAH distributions are measured using gas chromatography (GC) methods, particularly GC/MS. The visual interpretation of the results from GC/MS testing is a chromatogram. Variations in chromatograms are used to identify the sources of those MAH and PAHs.

Of particular importance to environmental forensic chemistry is the fact that petrogenic and pyrogenic substances from different sources can have measurably different amounts of MAHs and PAHs. For example, crude oils from different reservoirs can exhibit notably different ratios of trialkylated dibenzothiophenes to trialkylated phenanthrenes. Similarly, the ratio of dialkylated chrysene to chrysene varies among certain pyrogenic sources. Consequently, the determination of PAH profiles forms an important component of environmental forensic studies where hydrocarbon releases, either petrogenic or pyrogenic, are known or suspected to be involved.

In addition to MAHs and PAHs, pyrogenic and petrogenic substances can contain paraffinic hydrocarbons, olefinic hydrocarbons, naphthenic hydrocarbons, and other types of compounds. The presence and relative amounts of these compounds also is used to identify the nature and source of hydrocarbon-based materials in environmental samples.

Description of Chemical Fingerprinting Methodology

PAHs commonly form the basis for source attribution and allocation at sites involving petrogenic or pyrogenic materials. Studies have shown that the pattern of PAHs clearly distinguishes petrogenic from pyrogenic substances and can be used to identify and classify petrogenic or pyrogenic substances of different origins. For example, ASTM Method D 5739-95 is the method used extensively by the U.S. Coast Guard to determine the source of oil spilled in public waterways. That method relies on the determination of selected PAHs in oil, soil, or water samples by gas chromatography with mass spectrometric detection (GC/MS) and the use of the qualitative patterns and quantitative ratios of those PAHs to determine which oil samples have a common origin. Similarly, work by META Environmental, Inc. (META) has shown that the same methodology can be used to identify the sources of PAHs at former MGP sites, coke plants, tar refineries and wood treating facilities. Further, META has modified the typical sample preparation and analysis procedures for hydrocarbon fingerprinting to include MAHs as well as PAHs.

An approach based on MAH/PAH profiling has been used to investigate the sources of hydrocarbons at the MRC Sediments site, which is the topic of this report. Therefore, a more detailed discussion of the forensic methods used is presented in the next subsection as background.

GC/FID Fingerprinting

All sediment samples in this study were analyzed by gas chromatography with flame ionization detection (GC/FID). With GC/FID, organic compounds in a sample are vaporized and then separated in a long, narrow fused silica capillary column. Separation follows boiling point approximately with the most volatile compounds exiting the column first followed by increasingly less volatile compounds. Therefore, certain refined petroleum products, generated by the distillation of crude oil and which differ in their boiling point ranges, are distinguishable by where they appear on a chromatogram. Once they exit the column, the compounds are detected using the flame ionization technique. As the compounds exit and are detected, their responses are recorded and shown as peaks on a continuous plot. The height and area of a peak are proportional to the concentration of that compound in the sample. When done in a controlled and reproducible manner, the GC/FID method produces a "fingerprint" of a sample where the presence and relative amounts of the compounds are immediately visible as peaks of varying height appearing at different times. GC/FID fingerprints for the samples analyzed are provided in Appendix B.

GC/FID methods are commonly used for fingerprinting in a number of forensic fields. The patterns of individual peaks and the sizes and shapes of any baseline features are examined qualitatively for similarities and differences among samples.

The instrumental conditions for the GC/FID analyses in this study were adjusted so that compounds with boiling points between about hexane (C6) and n-tetracontane (C40) were detectable in one analytical run. This range includes most of the VOCs and all of the SVOCs commonly measured in environmental investigations. In particular, it includes benzene, toluene, ethylbenzene, xylenes, and the 16 priority pollutant PAHs that comprise a major portion of MGP tars and other pyrogenic substances. It also includes the range of compounds that are measurable in pyrogenic substances by gas chromatographic methods. Finally, META's GC/FID conditions detect most of the constituents of gasoline, as well as all of the constituents of higher boiling petroleum products (e.g., kerosene, diesel, refined oils).

Source identification using GC/FID is mostly qualitatively applied. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes a judgment regarding the nature and source of the contamination in the sample. The chemist might go "peak-by-peak" looking for similarities and differences, comparing peak ratios, and looking for indicator compounds.

For some samples, GC/FID fingerprinting is accurate and sufficient. However, the reliability of GC/FID fingerprinting decreases when multiple sources are present in a sample and when the sample composition becomes extensively altered by environmental weathering processes. Other testing methods, such as GC/MS, are complementary for source identification under these conditions.

Extended PAH Profiles (EPPs) by GC/MS

Samples from the MRC Sediments site also were analyzed by GC/MS for an expanded list of MAHs and PAHs (EPPs). Separation was accomplished with gas chromatography using a method similar to the GC/FID method discussed previously. However, in GC/MS, once

compounds exit the column, they are detected using a mass spectrometer. In the mass spectrometer, the molecules of each compound are ionized at high temperature and vacuum. The ionic fragments are unstable and fragment into smaller ions. The ions are then counted and the mass spectrum recorded. Thus, the mass spectrum for a compound is the pattern of ionic fragments that forms when that compound is ionized. Mass spectra vary widely and are characteristic of their source compound. For example, the mass spectrum of hexane is very different from the mass spectrum of benzene even though both compounds contain six carbon atoms plus hydrogen atoms.

In GC/MS, one obtains both a chromatogram of peaks and additional compound-specific information in the mass spectrum. When executed in a controlled and reproducible manner, the GC/MS method produces multiple "fingerprints" of a sample when specific fragment ions are isolated.

GC/MS is utilized in two general ways in environmental forensic chemistry. First, samples are analyzed under the conditions required by various standard methods, particularly EPA Methods 8260 and 8270 (U.S. EPA SW-846). The concentrations of certain target compounds are determined and the mass spectrum of each peak in the chromatogram is generated and stored. These mass spectra can be used to identify non-target compounds or to generate extracted ion current profiles (EICPs). Second, various specialty methods are utilized where the GC/MS operating conditions are setup to measure only certain groups of compounds. For example, the method described in 40 CFR Subchapter J Part 300 Subpart L Appendix C for PAHs, alkylated PAHs, and biomarkers is used extensively in oil spill and UST release analyses. This method is similar to ASTM Method D 5739-95, "Standard Practice for Oil Spill Source Identification by Gas Chromatography and Positive Ion Electron Impact Low Resolution Mass Spectrometry."

GC/MS data are used both qualitatively and quantitatively. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes judgments regarding the nature and source of the contamination in the sample. The chemist might go "peak-by-peak" looking for similarities and differences, comparing peak ratios, and looking for indicator compounds. This process is described in detail in ASTM Method D 5739-95.

GC/MS data are more commonly used quantitatively by calculating the concentrations of selected compounds, by comparing peak area ratios, or by applying chemometric or pattern recognition techniques to the raw or adjusted data. These data analysis methods are used extensively with extended PAH profiles (MAHs, PAHs and alkylated PAHs) and with biomarker compound data. Various degrees of statistical confidence can be achieved by examining chemical concentrations and compound ratios or patterns from multiple samples and replicate samples. This characteristic of GC/MS quantitative data is particularly valuable when assessing the degree of similarity or difference between samples, particularly when multiple sources of hydrocarbons are present in the sample or when environmental weathering has altered the original distributions of hydrocarbons.

Finally, the mass spectra of selected compounds also can be examined to determine whether any diagnostic or indicator chemicals are present in the sample. For example, the PAH retene (1-methyl-7-isopropylphenanthrene) is present in significant concentrations in coal, but at much lower concentrations in coal tar or petroleum products. Thus, the ratio of retene to chrysene can be used to determine whether coal fines are present in a soil sample and to explain some of the

hydrocarbon patterns observed at sites where coal was used extensively. Further, unknown compounds can be identified and their presence used as clues to the source(s) of the chemicals.

The GC/MS data in this study were reported and utilized both qualitatively and quantitatively. First, the concentrations of MAHs, PAHs and alkylated PAHs were calculated and included in Appendix C. These concentrations were utilized to estimate contaminant levels in samples, to generate bar graphs (Appendix D) and compare compound ratios. The ratios were used to generate plots for identifying samples with similar compositions.

The GC/MS data also were used qualitatively by generating extracted ion current profiles (EICPs) for selected compounds and compound groups of forensic value (Appendix E). For example, the EICPs for selected "biomarker" compounds including normal alkanes, isoprenoid hydrocarbons, alkylcyclohexanes, triterpanes and steranes are shown on the first page of the EICP report for each sample. These compound groups are commonly used in hydrocarbon source identifications and weathering evaluations. For example, the estimated boiling point range of a refined petroleum product, as indicated by the location of the alkanes and unresolved complex mixture (UCM) on the chromatogram, can be used to determine whether the material is kerosene, diesel, No. 6 fuel oil, or some other product. Similarly, triterpanes and steranes are known to be present in crude oils and some refined petroleum products, but not found in coke oven tars and rarely found in MGP tars. Therefore, the presence of triterpanes and steranes is monitored to confirm and refine the petrogenic verses pyrogenic assessment conducted with the PAH profiles.

Sample-Specific Observations

GC/FID fingerprints (where available), GC/MS EICPs, histograms and concentration data were examined and the important features summarized in Table 1. The PAH class (pyrogenic or petrogenic) was indicated based on the relative amounts of parent and alkylated PAHs; the fluoranthene to pyrene ratio (Fl/Py) calculated; evidence of petroleum and other hydrocarbon sources noted; and a tentative source identification provided.

Table 1. Summary of Observations and Tentative Identification

Laboratory ID	Field ID	Observations	Total PAH(16) mg/kg	Fl/Py Ratio [1]	Class	Tentative Identification[1]
TT100819-01	SD-90-SS	Wide-range distribution of parent and alkylated PAHs; 4-,, 5-, and 6-ring parent PAHs most abundant. Broad, irregularly-shaped UCM with odd-carbon alkane series, triterpanes and steranes present; molecular sulfur evident. Somewhat elevated benzene, toluene, and xylenes concentrations	18.4	1.189	Pyrogenic/ Petrogenic	Background[2]
TT100819-02	SD-90-01	Similar to SD-90-SS; higher concentrations of parent HPAHs	41.6	1.069	Pyrogenic/ Petrogenic	Background
TT100819-03	SD-90-02	Similar to SD-90-SS; higher concentrations HPAHs	107	1.065	Pyrogenic/ Petrogenic	Background
TT100819-04	SD-94-SS	Low level MAHs and PAHs; elevated benzene, toluene, and xylenes; no UCM or petroleum biomarkers	0.488	1.031	Pyrogenic/ Petrogenic	Background
TT100819-05	SD-94-01	Similar to SD-94-SS	0.032	1.100	Pyrogenic/ Petrogenic	Background
TT100819-06	SD-94-02	Similar to SD-94-SS-	0.011	1.336	Pyrogenic/ Petrogenic	Background
TT100819-07	SD-97-SS	Similar to SD-90-SS	7.0	1.065	Pyrogenic/ Petrogenic	Background
TT100819-08	SD-97-01	Similar to SD-90-SS	23.1	1.214	Pyrogenic/ Petrogenic	Background
TT100819-09	SD-97-02	MAH/PAH pattern similar to SD-90-SS; lower concentrations; no detectable UCM or petroleum biomarkers	0.424	0.929	Pyrogenic/ Petrogenic	Background
TT100819-10	SD-87-SS	Similar to SD-90-SS	19.8	0.965	Pyrogenic/ Petrogenic	Background

Laboratory ID	Field ID	Observations	Total PAH(16) mg/kg	Fl/Py Ratio [1]	Class	Tentative Identification[1]
TT100819-11	SD-87-01	Similar to SD-90-SS	38.0	1.099	Pyrogenic/ Petrogenic	Background
TT100819-12	SD-87-02	Similar to SD-90-SS	103	1.141	Pyrogenic/ Petrogenic	Background
TT100819-13	SD-101-SS	Similar to SD-90-SS	7.43	1.118	Pyrogenic/ Petrogenic	Background
TT100819-14	SD-101-01	Similar to SD-90-SS	6.43	0.975	Pyrogenic/ Petrogenic	Background
TT100819-15	SD-101-02	Similar to SD-90-SS	9.33	0.969	Pyrogenic/ Petrogenic	Background
TT100824-01	Middle River Downstream – SS	Similar to SD-90-SS	3.58	1.139	Pyrogenic/ Petrogenic	Background
TT100824-02	Marshy Point –SS	Similar to SD-90-SS	1.64	1.171	Pyrogenic/ Petrogenic	Background
TT100824-03	Bowley's Quarters –SS	Similar to SD-90-SS	2.42	1.106	Pyrogenic/ Petrogenic	Background
TT100824-04	MR-Dup 6 -SS	Similar to SD-90-SS	3.33	1.150	Pyrogenic/ Petrogenic	Background
Storm Event Samples						
TT101015-01	MRC-SW-1	Did not contain sufficient concentrations of chemicals to characterize	(µg/L) 0.156	NA	none	none
TT101015-02	MSA-SW-1	Did not contain sufficient concentrations of chemicals to characterize	NA	NA	none	none
TT100824-03	MRC-SED-1	Wide-range distribution of low concentration parent and alkylated PAHs; 4-, 5-, and 6-ring parent PAHs most abundant. Broad, irregularly-shaped UCM with odd-carbon alkane series, triterpanes and steranes present.	1.47	1.150	Pyrogenic/ Petrogenic	Background

1 - Fl/Py – ratio of fluoranthene/pyrene; this ratio has been shown to vary among PAH sources, typically low for petrogenic sources and higher for pyrogenic sources. further, tars derived from oil often exhibit lower Fl/Py ratios than tars derived from coal.

2 – general urban background is characterized by relatively low concentrations of PAHs, often pyrogenically formed, mixed with an accumulation of severely weathered petroleum products and/or coal. There is a wide range of compositions and therefore chemical patterns of urban background that reflect the history of land uses in the area where the samples were collected.

UCM – unresolved mixture of hydrocarbons

HPAHs – high molecular weight PAHs

PAH(16) – sum of the 16 EPA priority pollutant PAHs

Discussion

Nineteen sediment samples were received by META from the MRC Sediments site. The samples were analyzed for hydrocarbon fingerprints and an expanded list of MAHs and PAHs. The data were compared to samples of tars, tar-derived materials, and petroleum products from META's sample archive.

All of the samples contained various amounts of MAHs and PAHs in patterns consistent with mixtures of pyrogenic and petrogenic sources. As summarized in Table 1, distinguishing features included relatively more HPAHs than MAHs and low molecular weight PAHs (LPAHs); relatively low total PAH concentrations (0.011 mg/kg – 107 mg/kg); late-eluting UCMs, petroleum biomarkers, high molecular weight, odd-carbon normal alkane distributions; and the presence of molecular sulfur and elevated perylene in some samples. These features are consistent with general background in urban sediments. Urban background includes PAHs from many sources including smoke from natural and industrial fires, motor vehicle exhaust, roadway paving and driveway sealcoating materials, construction debris and fill materials, and petroleum spills among others. Often more than one of these sources contributes to an urban background signature.

Samples SD-90-02 and SD-87-02 contained total PAH(16) concentrations (107 mg/kg and 103 mg/kg, respectively) somewhat higher than expected for urban background. However, an examination of PAH ratios suggested that the PAH source was more similar to background than to tar sources, as discussed below.

Various PAH ratios for the samples were calculated and are listed in Table 2 and shown in Figures 1 through 5. For example, the ratios of fluoranthene/pyrene (Fl/Py) and benzofluorenes/methylpyrenes (BF/MP) are weathering-resistent PAH ratios that vary significantly among PAH sources. The PAH ratios indicate that much of the PAH mass is pyrogenically-derived, even though there are indications of petrogenic materials in the samples.

Figure 1 shows that the fluoranthene/pyrene (Fl/Py) ratios of all the samples were higher than expected for MGP tarry materials from carbureted water gas (CWG) plants, but lower than those typical for commercial coal tars from byproduct coke plants and some MGP tarry materials from coal carbonization (CC) plants. While the Fl/Py ratios of the sediment samples are in range normally associated with MGP CC residues, the benzofluorenes/methylpyrenes (BF/MP) ratios are somewhat lower than expected for MGP tars.

Figure 2 shows the same data as in Figure 1, but with the PAH ratios from a large set of urban background surface soil samples collected and analyzed by META. The MRC sediments cluster more closely to the majority of urban background surface soil samples than the tar samples (or even more so than the petroleum reference samples). The higher concentration samples, SD-90-02 and SD-87-02 also plot near the urban background surface soil samples.

For some sample sets, the ratio of fluoranthene + pyrene divided by the sum of HPAHs (Fl+Py/PP HPAHs) can help distinguish between background sources of PAHs and tar-derived PAHs. Figure 3 shows that most of the MRC sediment samples have Fl+Py/PP HPAHs ratios lower than the majority of tar reference samples. Sample SD-94-01 appears to be an outlier, likely due to the very low concentrations of PAHs detected in that sample.

When the urban background surface soil samples are added to Figure 3 (i.e., Figure 4) the distinction is more dramatic.

Two samples of water and one sample of sediment were later received in association with a stormwater event at the site. The two stormwater samples did not contain PAHs at concentrations high enough to interpret. The stormwater sediment sample did contain PAHs at low concentrations. Figures 1 to 4 show that the stormwater sediment sample and its laboratory duplicate comingle with the cove sediment samples and other PAH background samples suggesting the PAHs originated from similar urban runoff sources.

Table 2. Selected Source and Weathering Ratios

Field ID	Lab ID	Fl/Py	D/F	C17/Pri	C18/Phy	Pri/Phy	C3D/C3PA	C2D/C2PA	BF/MP	(Fl+Py)/Total PP HPAHs
SD-90-SS	TT100819-01	1.189	0.831	6.439	1.162	0.739	0.720	0.403	0.474	0.343
SD-90-SS	TT100819-01DUP	1.193	0.852	8.970	1.223	0.486	0.692	0.419	0.478	0.346
SD-90-01	TT100819-02	1.069	0.599	2.217	0.631	0.718	0.828	0.448	0.356	0.349
SD-90-02	TT100819-03	1.065	0.385	1.153	0.413	0.803	0.844	0.439	0.467	0.394
SD-94-SS	TT100819-04	1.031	0.418	2.275	7.131	1.671	1.260	0.374	0.509	0.305
SD-94-01	TT100819-05	1.100	NC	2.263	7.583	1.117	1.607	0.967	NC	0.547
SD-94-02	TT100819-06	NC	NC	NC	2.620	NC	0.828	0.565	NC	NC
SD-97-SS	TT100819-07	1.065	0.796	11.830	0.780	0.384	0.572	0.370	0.400	0.341
SD-97-01	TT100819-08	1.214	0.625	6.199	0.536	0.570	0.694	0.470	0.622	0.372
SD-97-02	TT100819-09	0.929	0.633	1.229	1.159	1.287	1.094	0.394	0.618	0.385
SD-87-SS	TT100819-10	0.965	0.467	3.541	1.446	0.687	0.812	0.407	0.284	0.335
SD-87-01	TT100819-11	1.099	0.463	1.347	0.880	0.843	0.876	0.455	0.495	0.344
SD-87-02	TT100819-12	1.141	0.430	0.847	0.856	1.001	0.760	0.419	0.644	0.377
SD-101-SS	TT100819-13	1.118	0.659	11.457	1.745	0.764	0.819	0.558	0.455	0.336
SD-101-01	TT100819-14	0.975	0.740	8.309	1.233	0.701	0.938	0.430	0.337	0.357
SD-101-02	TT100819-15	0.969	0.630	6.127	0.888	0.845	0.822	0.446	0.361	0.394
Middle River Downstream - SS	TT100824-01	1.139	0.745	14.116	2.009	0.875	0.915	0.439	0.566	0.358
Marshy Point - SS	TT100824-02	1.171	0.797	10.239	3.924	2.060	0.727	0.406	0.533	0.450
Bowley's Quarters - SS	TT100824-03	1.106	0.651	7.450	1.826	1.374	0.843	0.476	0.620	0.255
MR-Dup 6 - SS	TT100824-04	1.150	0.750	16.295	1.562	0.612	0.748	0.401	0.569	0.371
Storm Event Samples										
MRC-SW-1	TT101015-01	NC	NC	NC	NC	NC	NC	NC	NC	NC
MRC-SW-1	TT101015-01DUP	NC	NC	NC	NC	NC	NC	NC	NC	NC
MSA-SW-1	TT101015-02	NC	NC	NC	NC	NC	NC	NC	NC	NC
MRC-SED-1	TT101015-03	1.152	0.429	2.150	1.789	1.053	0.952	0.467	0.341	0.322
MRC-SED-1	TT101015-03DUP	1.132	NC	2.286	1.923	1.077	0.926	0.704	0.323	0.339

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	heptadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes
BF/MP	benzofluorenes/methylpyrenes
NC	Not calculable

Figure 1. Selected Diagnostic Ratios – Benzofluorenes/Methylpyrenes v. Fluoranthene/Pyrene

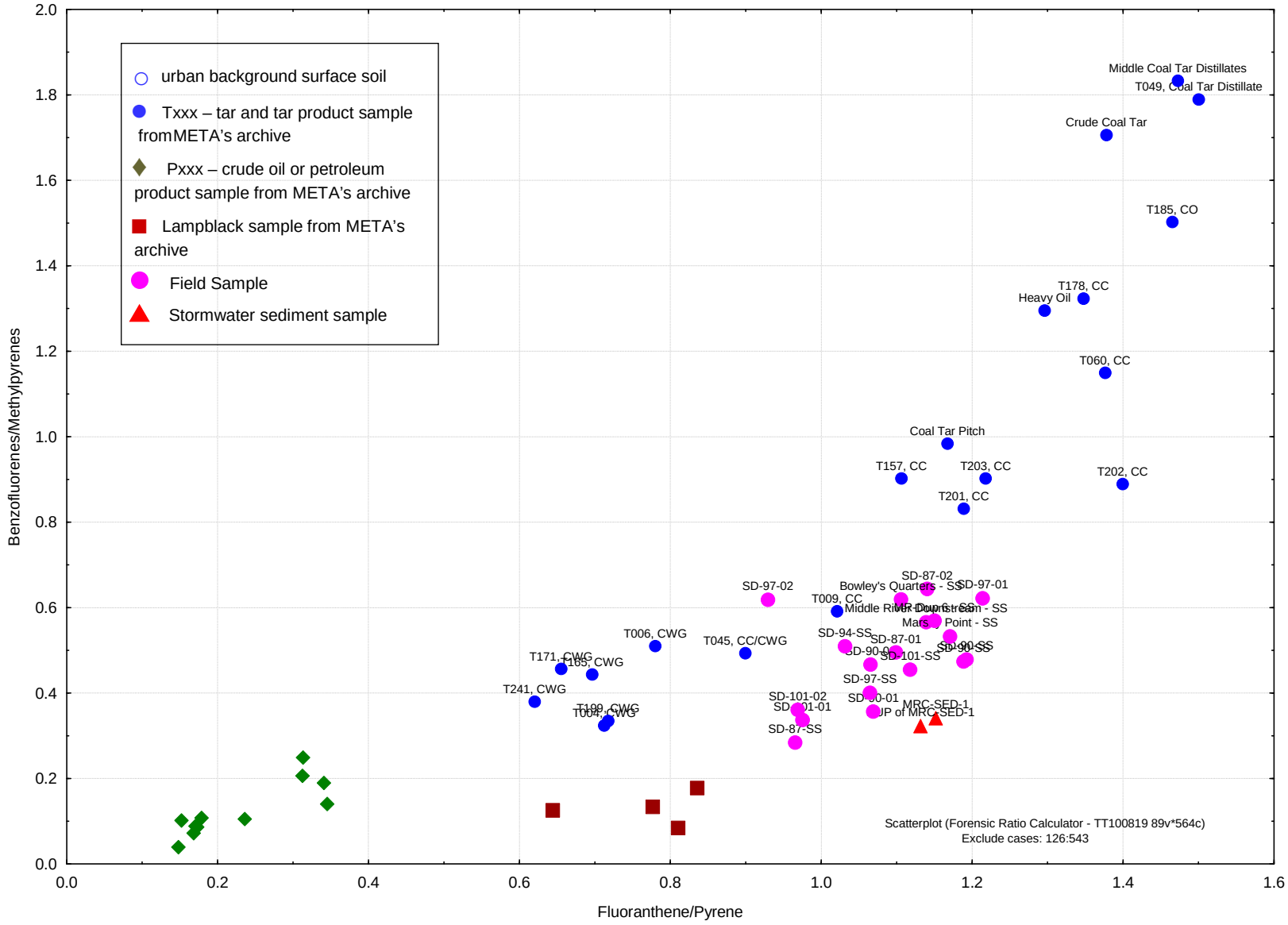


Figure 2. Selected Diagnostic Ratios – Benzofluorene/Methylpyrenes v. Fluoranthene/Pyrene

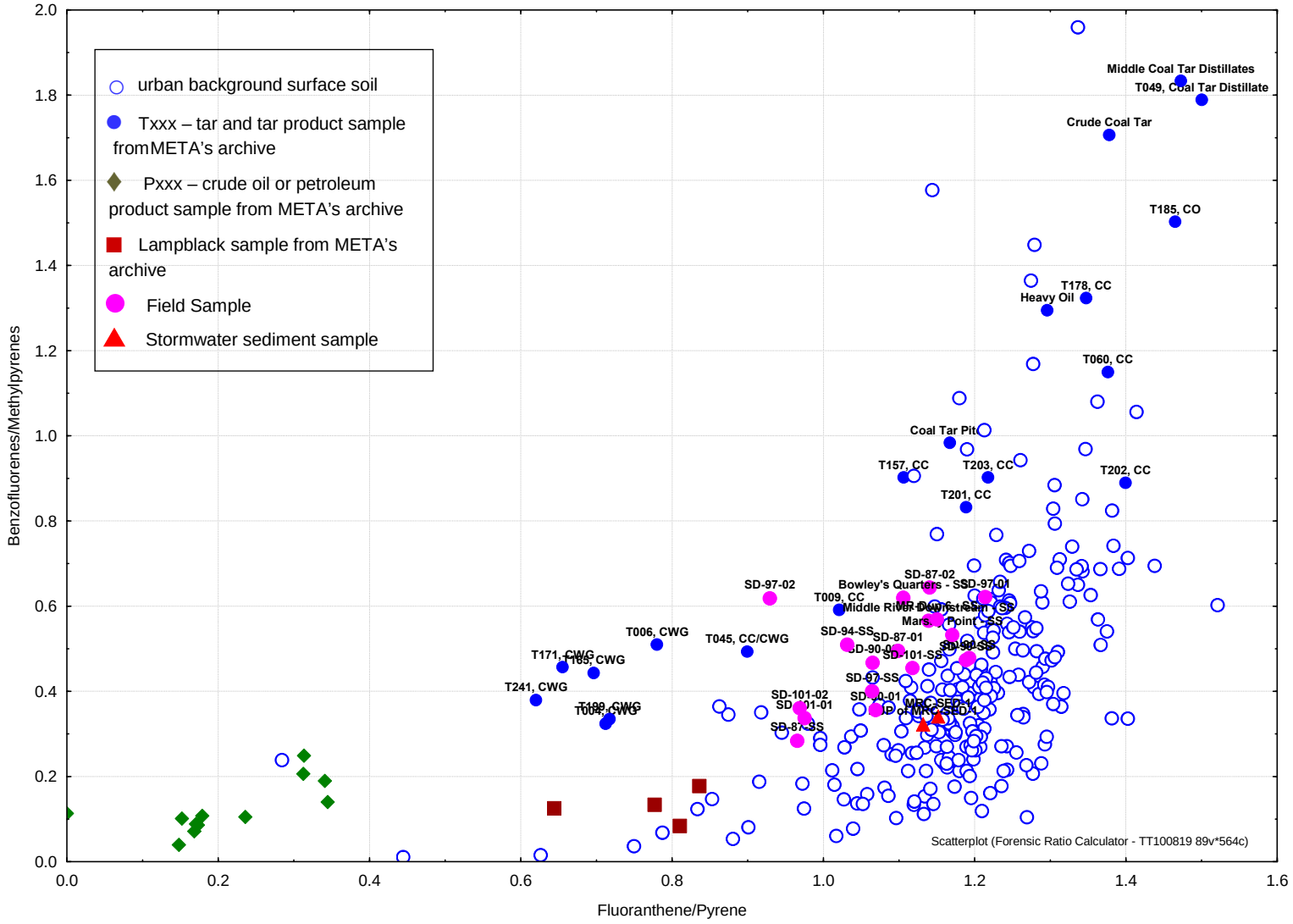


Figure 3. Selected Diagnostic Ratios – Fl+Py/PP HPAHs v. Total PP PAHs

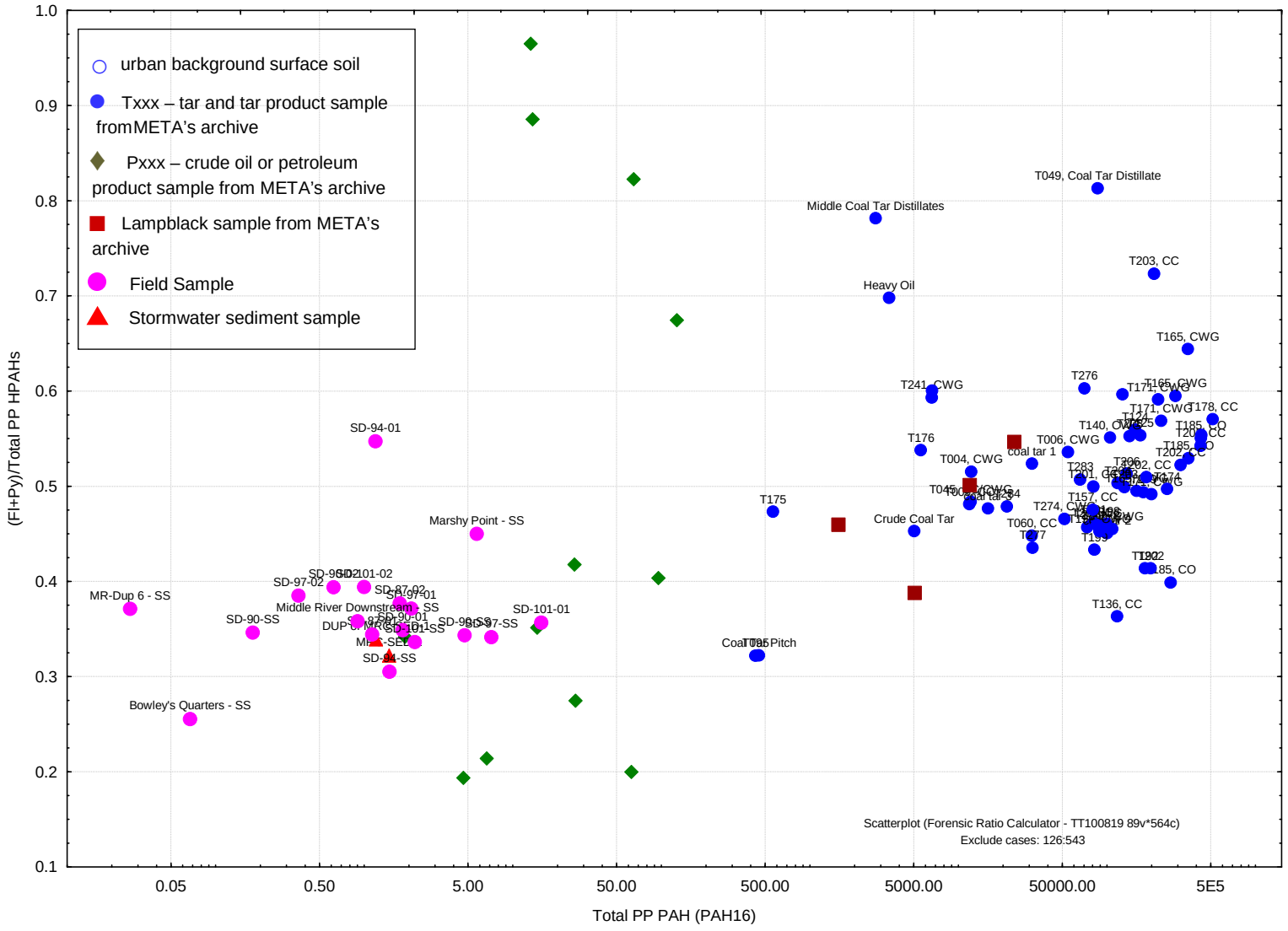
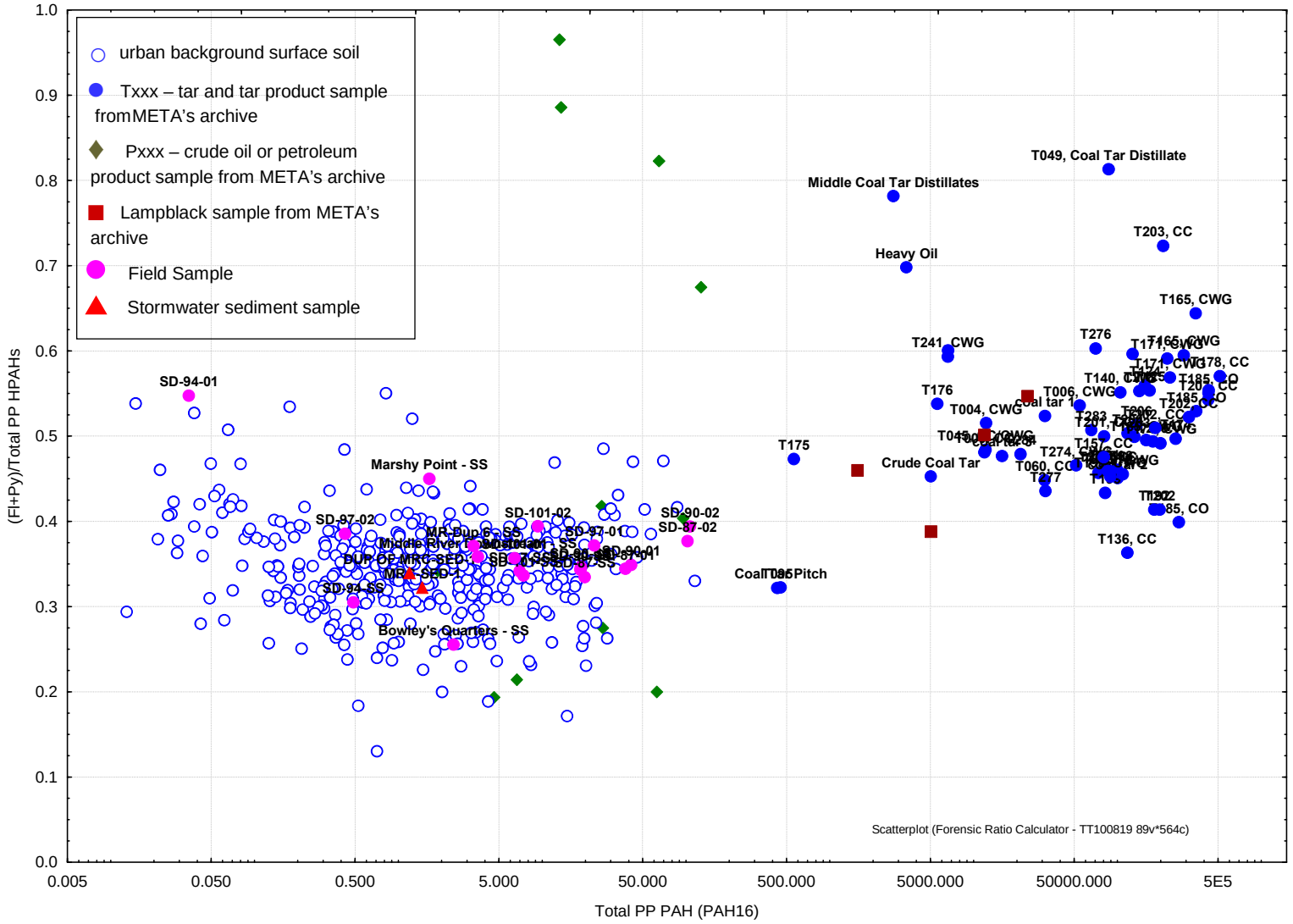


Figure 4. Selected Diagnostic Ratios – Fl+Py/PP HPAHs v. Total PP PAHs



Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

McNicoll, D., Tousignant, L.P., Augustine, P. "Facts and Fallacies: Petroleum Degradation in a Subsurface Environment." Contaminated Soil Sediment and Water, 17-21, June,July 2001

"Chemical Fingerprinting of Hydrocarbons," in: Introduction to Environmental Forensics. B.L. Murphy and R.D. Morrison editors, Academic Press, San Diego, CA 2002.

Mauro, D.M., "Chemical Source Attribution at former MGP Sites," EPRI Report 1000728, December 2000.

Appendix A

Chain of Custody

CHAIN OF CUSTODY RECORD

PROJECT MRC SEDIMENT SAMPLING
CONTACT MIKE MARTIN
COMPANY TETRA TECH
ADDRESS 20251 CENTURY BLVD SUITE 200, GERMANTOWN, MD 20874
EMAIL michael.martin@tetratech.com
PHONE 301 528 3022 **FAX** 301 528 3000
SAMPLED BY
Print Name TONY ARANGIO Sign

Turn Around Time
Standard ✓
If Authorized *
1 Week ☐
Other ☐ ____

META Environmental, Inc.
49 Clarendon St. - Watertown, Massachusetts - 02472
Tel (617) 923-4662 - Fax (617) 923-4610 - www.metaenv.com

Samp #	Date	Time	Field Sample ID	Container Size	Container G/P	Grab	Composite	# of Containers	Matrix	Preserv.	Parameters: Alkylate d PAHs	Comments
	8/17/10	1005	SD-90-SS	4oz	G	✓		1	SED	—	X	TT100819-01
	8/17/10	1007	SD-90-01	4oz	G	✓		1	SED	—	X	-02
	8/17/10	1020	SD-90-02	4oz	G	✓		1	SED	—	X	-03
	8/17/10	1330	SD-94-SS	4oz	G	✓		1	SED	—	X	-04
	8/17/10	1335	SD-94-01	4oz	G	✓		1	SED	—	X	-05
	8/17/10	1340	SD-94-02	4oz	G	✓		1	SED	—	X	-06
	8/17/10	1220	SD-97-SS	4oz	G	✓		1	SED	—	X	-07
	8/17/10	1225	SD-97-01	4oz	G	✓		1	SED	—	X	-08
	8/17/10	1230	SD-97-02	4oz	G	✓		1	SED	—	X	-09
	8/18/10	0855	SD-87-SS	4oz	G	✓		1	SED	—	X	-10
	8/18/10	0857	SD-87-01	4oz	G	✓		1	SED	—	X	-11
	8/18/10	0859	SD-87-02	4oz	G	✓		1	SED	—	X	-12
	8/18/10	0955	SD-101-SS	4oz	G	✓		1	SED	—	X	-13
	8/18/10	0957	SD-101-01	4oz	G	✓		1	SED	—	X	-14
	8/18/10	0959	SD-101-02	4oz	G	✓		1	SED	—	X	-15

Relinquished by	Date & Time	Relinquished by	Date & Time	Relinquished by	Date & Time
	8/18/10 1600				
Received by	**Date & Time**	**Received by**	**Date & Time**	**Received by**	**Date & Time**
	8/19/10 10:30				

Shipping Info.

Remarks

Temp °C 0

* Surcharges may apply

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
TT100819-01	SD-90-SS	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-02	SD-90-01	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-03	SD-90-02	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-04	SD-94-SS	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-05	SD-94-01	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-06	SD-94-02	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-07	SD-97-SS	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-08	SD-97-01	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-09	SD-97-02	Soil	8/17/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-10	SD-87-SS	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-11	SD-87-01	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-12	SD-87-02	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-13	SD-101-SS	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-14	SD-101-01	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100819-15	SD-101-02	Soil	8/18/2010	8/19/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling

Logged By: JO

Date: 8/19/10

Reviewed By: JL

Date: 8/20/10

META Environmental, Inc.

Sample Receipt Checklist

Receipt date: 8/19/10

Login date: 8/19/10

Login personnel: SO

Client Information:.

Company Name: TetraTech

Project Manager: Mike Martin

Project Name: MRC Sediment Sampling

Shipping Information:

How were samples received? UPS (FedEx) DHL Other:

Number of coolers: 1

Internal temperature of coolers: 0°C

Was ice present? (Yes) / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? (Yes) / No

Was it signed? (Yes) / No

Was all project information present on the COC? (Yes) / No

Was a bill of lading or shipping label retained? (Yes) / No

Sample Information:

Number of sample containers: 15

Does this match the COC? (Yes) / No

Were all sample containers Intact? (Yes) / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / No / (NA)

Comments:

Custodian: [signature]

Project Manager: [signature]

CHAIN OF CUSTODY RECORD

PROJECT MRC SEDIMENT SAMPLING
CONTACT MIKE MARTIN
COMPANY TETRA TECH
ADDRESS 20251 CENTURY BLVD SUITE 200
GERMANTOWN, MD. 20874
EMAIL michael.martin@tetratech.com
PHONE 3015283022 **FAX** 3015283000
SAMPLED BY

Print Name _____ Sign _____

Turn Around Time
Standard ☐
If Authorized *
1 Week ☐
Other ☐ _____

META Environmental, Inc.
49 Clarendon St. - Watertown, Massachusetts - 02472
Tel (617) 923-4662 - Fax (617) 923-4610 - www.metaenv.com

Samp #	Date	Time	Field Sample ID	Container Size	Container G/P	Grab	Composite	# of Containers	Matrix	Preserv.	Parameters: ALK / PAHs	Comments
	8/20/10	1337	middle River Downstream -SS	4oz		X				~	X	TT10824-01
	8/21/10	1520	Marshy Point -SS	4oz						~	X	-02
	8/21/10	1545	Bowley's Quarters -SS	4oz						~	X	-03
	8/20/10	0930	MR Dup 6 - SS	4oz						~	X	TT10824-04

Relinquished by	Date & Time	Relinquished by	Date & Time	Relinquished by	Date & Time
[signature]	8/23/10 1600				
Received by	**Date & Time**	**Received by**	**Date & Time**	**Received by**	**Date & Time**
[signature]	8/24/10 0:30				

Shipping Info.

Remarks

Temp °C 2.3

* Surcharges may apply

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
TT100824-01	Middle River Downstream -SS	Soil	8/20/2010	8/24/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100824-02	Marshy Point -SS	Soil	8/21/2010	8/24/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100824-03	Bowley's Quarters -SS	Soil	8/21/2010	8/24/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling
TT100824-04	MR-Dup 6 -SS	Soil	8/20/2010	8/24/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC Sediment Sampling

Logged By: KO

Date: 8/24/10

Reviewed By:

Date: 8/25/10

META Environmental, Inc.

Sample Receipt Checklist

Receipt date: 3-24-16

Login date: 3-24-16

Login personnel: JR

Client Information:.

Company Name: Tetra Tech

Project Manager: Mike Martin

Project Name: MRC Sediment Sampling

Shipping Information:

How were samples received? UPS (FedEx) DHL Other:

Number of coolers: 1

Internal temperature of coolers: 2.3°C

Was ice present? (Yes) / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? (Yes) / No

Was it signed? (Yes) / No

Was all project information present on the COC? (Yes) / No

Was a bill of lading or shipping label retained? Yes / (No)

Sample Information:

Number of sample containers: 4

to 8/24/10

Does this match the COC? (Yes) / (No) ~~COC indicates 3 samples, we received one extra labeled MR-Dup6 55~~

Were all sample containers Intact? (Yes) / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / No / (NA)

Comments:

Custodian: [signature]

Project Manager: [signature]

CHAIN OF CUSTODY RECORD

PROJECT MRC/MSA Storm Water/Sediment Sampling
CONTACT Mike Martin
COMPANY Tetra Tech
ADDRESS 20251 Century Blvd Ste 200

EMAIL ~~Stuart.C~~ Mike.Martin@TetraTech.Com
PHONE (301)528-5552 **FAX**

SAMPLED BY
Print Name Stuart Cameron Sign

Turn Around Time
Standard ☐
If Authorized *
1 Week ☐
Other ☐ ____

META Environmental, Inc.
49 Clarendon St. - Watertown, Massachusetts - 02472
Tel (617) 923-4662 - Fax (617) 923-4610 - www.metaenv.com

Parameters

Samp #	Date	Time	Field Sample ID	Container Size	Container G/P	Grab	Composite	# of Containers	Matrix	Preserv.	Alkyl PAHs									Comments (LAB ID)
	10/14/10	1015	MRC-SW-1	3-40mL	G	X		3	Aqueous	—	X									TT101015-01
		1011	MSA-SW-1	3-40mL	G	X		3	Aqueous	—	X									-02
	↓	1300	MRC-SED-1	1-4oz	G	X		1	Sediment	—	X									-03

Relinquished by	Date & Time	Relinquished by	Date & Time	Relinquished by	Date & Time
[signature]	10/14/10-1535				
Received by	**Date & Time**	**Received by**	**Date & Time**	**Received by**	**Date & Time**
RAR	10/15/10 9:30				

Shipping Info.

Remarks

Temp °C ~~3.8~~ 0 R12

* Surcharges may apply

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
TT101015-01	MRC-SW-1	Water	10/14/2010	10/15/2010	T04015-60	3 x 40 ml VOA		Tetra Tech	MRC/MSA Storm Water/ Sediment Sampling
TT101015-02	MSA-SW-1	Water	10/14/2010	10/15/2010	T04015-60	3 x 40 ml VOA		Tetra Tech	MRC/MSA Storm Water/ Sediment Sampling
TT101015-03	MRC-SED-1	Soil	10/14/2010	10/15/2010	T04015-60	1 x 4 oz jar		Tetra Tech	MRC/MSA Storm Water/ Sediment Sampling

Logged By: RPR

Date: 10/15/10

Reviewed By: JM

Date: 10/18/10

META Environmental, Inc.

Sample Receipt Checklist

Receipt date: 10/15/10

Login date: 10/15/10

Login personnel: RPR

Client Information:.

Company Name: TETRA TECH

Project Manager: MIKE MARTIN

Project Name: MRC/MSA STORM WATER/SEDIMENT SAMPLING

Shipping Information:

How were samples received? UPS (FedEx) DHL Other:

Number of coolers: 1

Internal temperature of coolers: ~~3.8~~ 0°C

Was ice present? Yes / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? (Yes) / No

Was it signed? (Yes) / No

Was all project information present on the COC? Yes / (No)

Was a bill of lading or shipping label retained? (Yes) / No

Sample Information:

Number of sample containers: 7

Does this match the COC? (Yes) / No

Were all sample containers Intact? (Yes) / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / (No) / NA

Comments: TAT NOT SPECIFIED

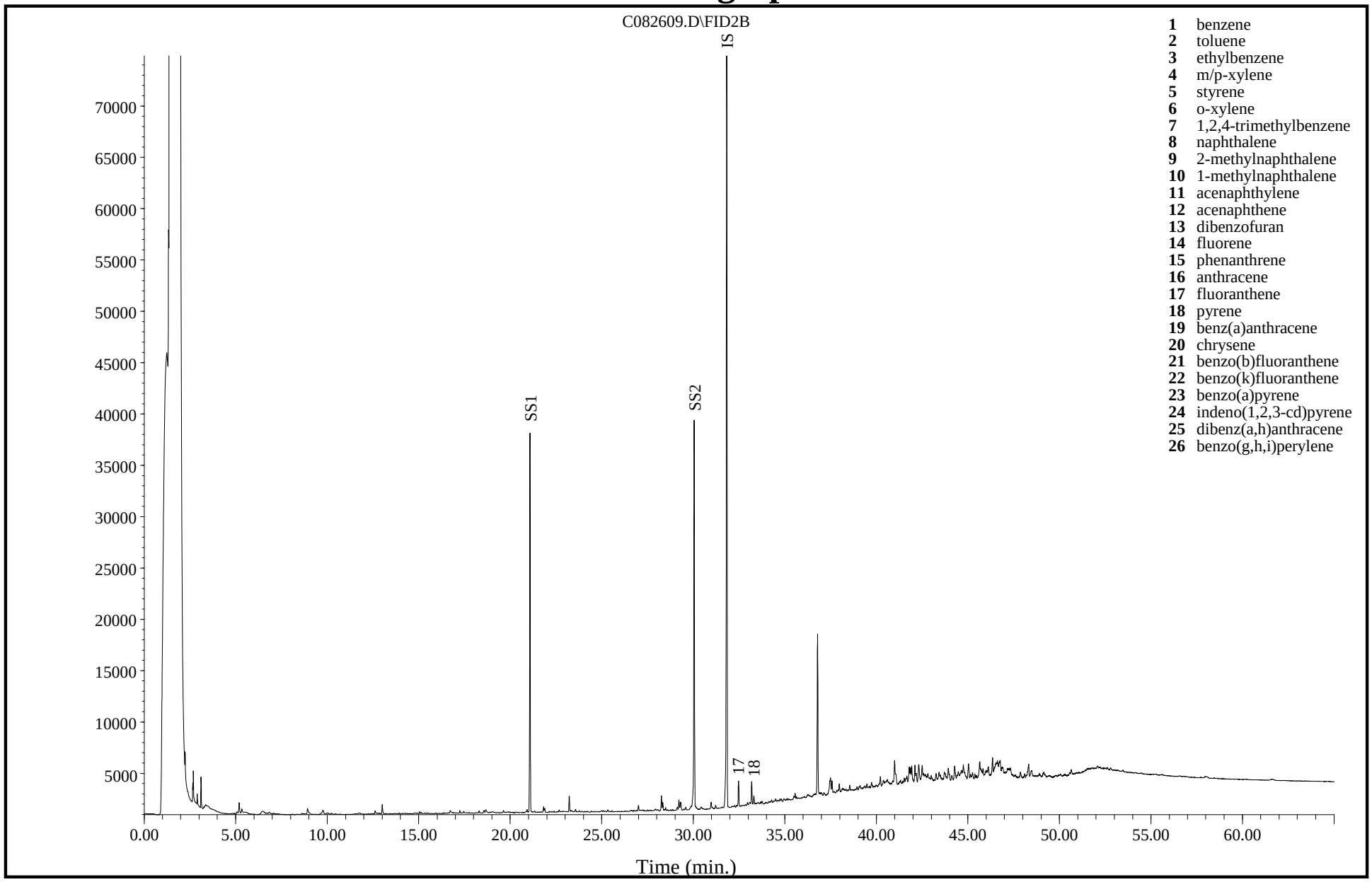
Custodian: RPR

Project Manager:

Appendix B

GC/FID Fingerprints

GC/FID Fingerprint

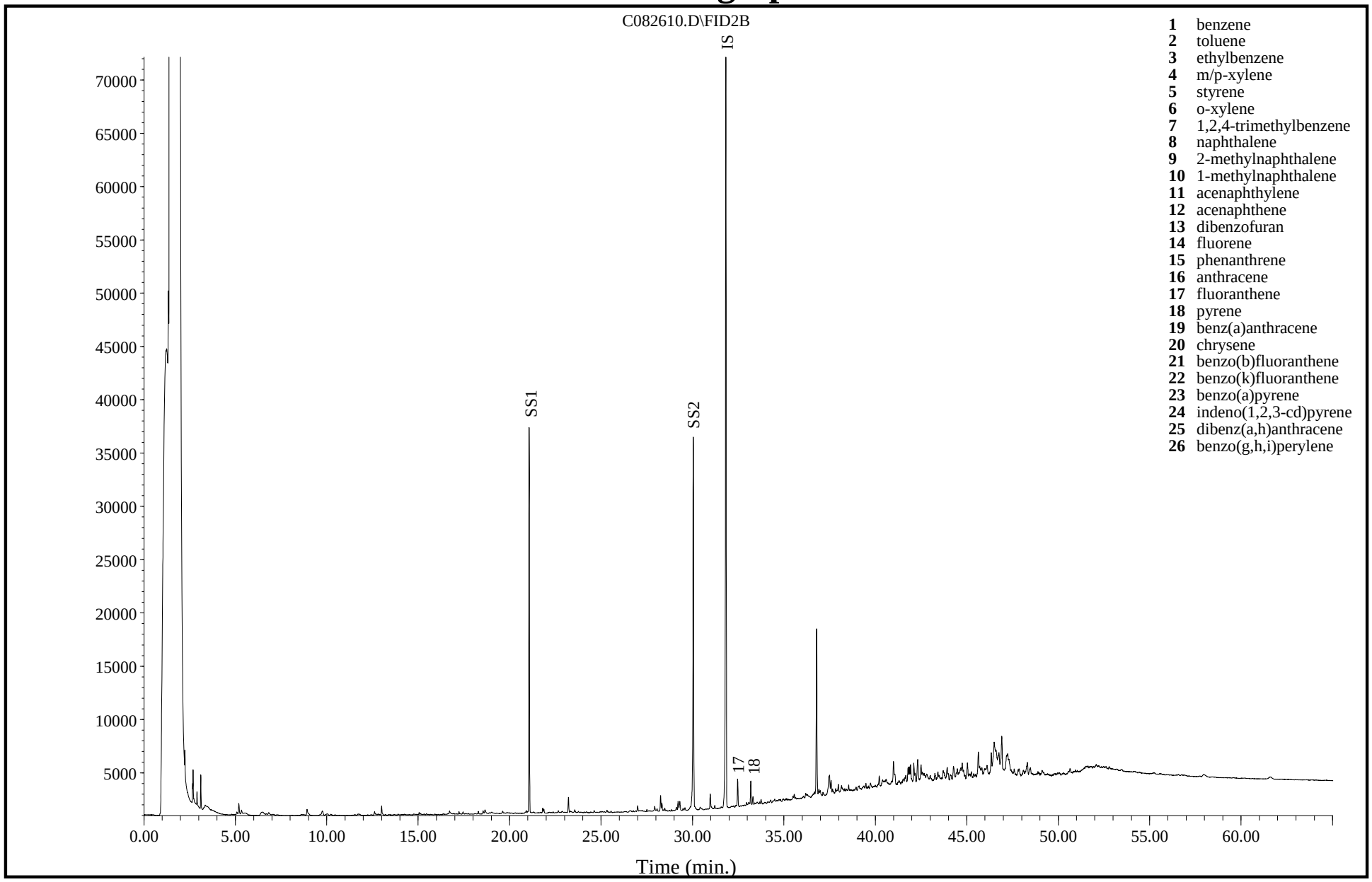


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-90-SS**
Laboratory ID: TT100819-01
Method: EPA 8100M

GC/FID Fingerprint

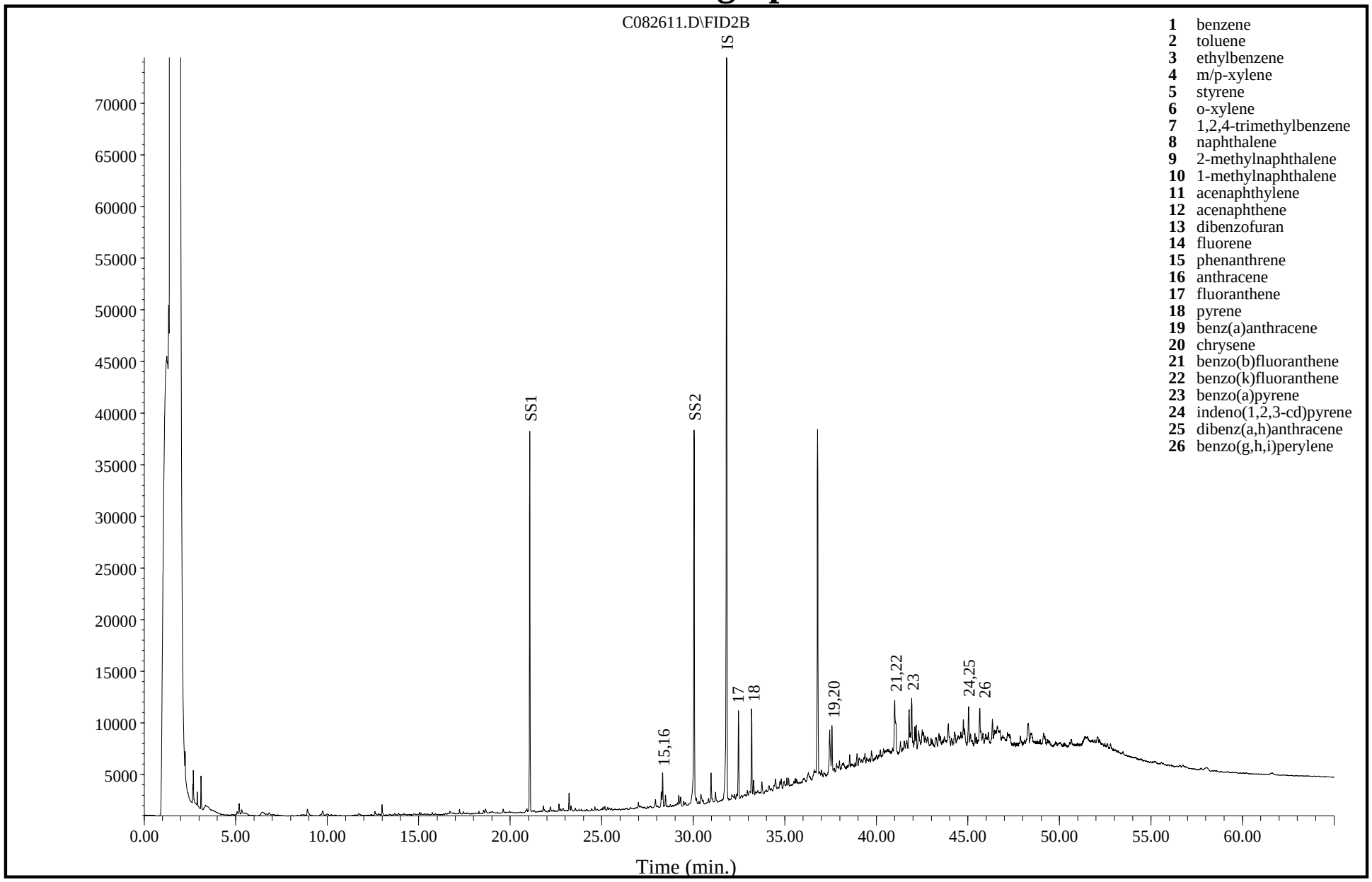


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-90-SS**
Laboratory ID: TT100819-01DUP
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

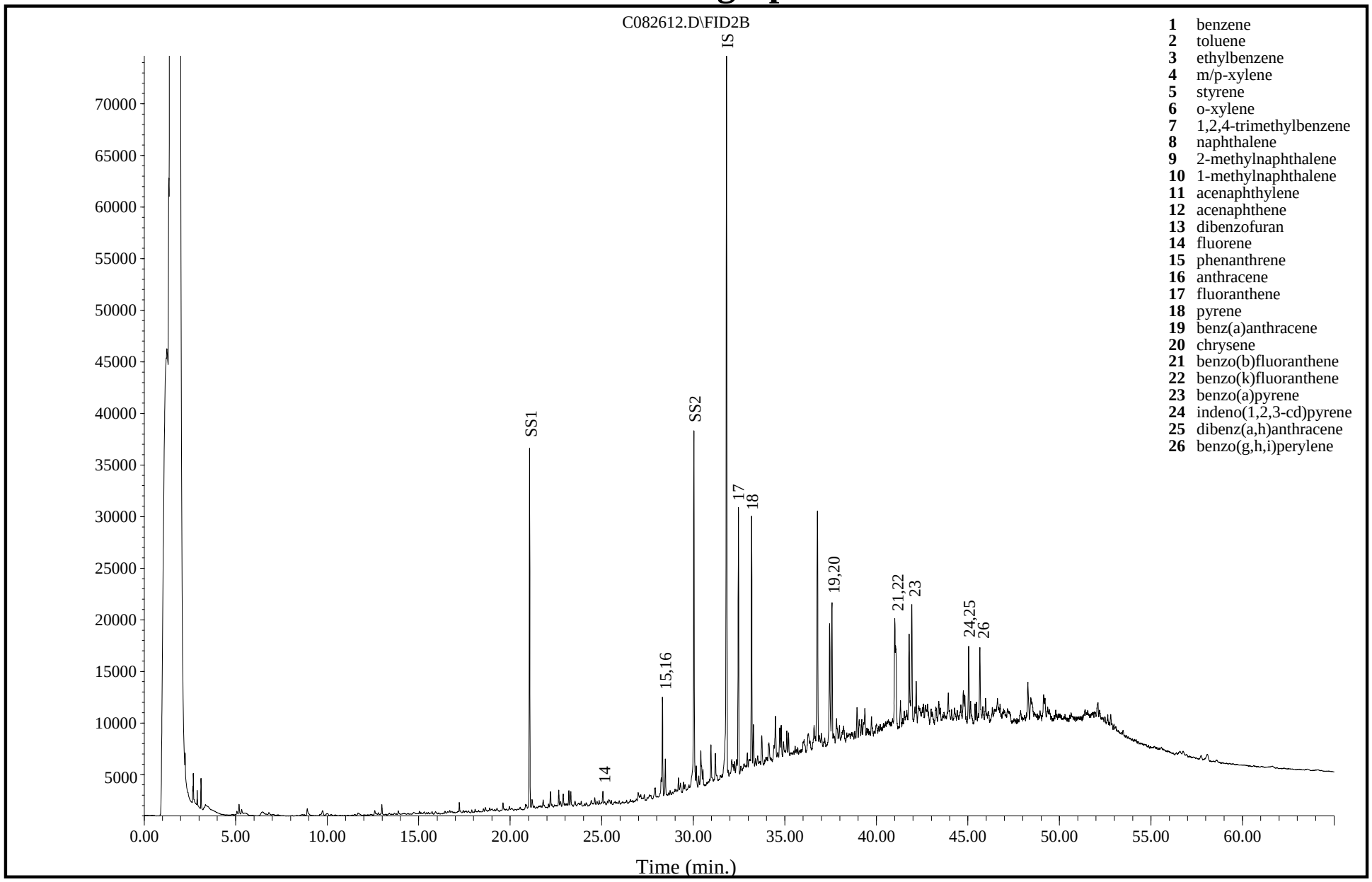


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-90-01**
Laboratory ID: TT100819-02
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

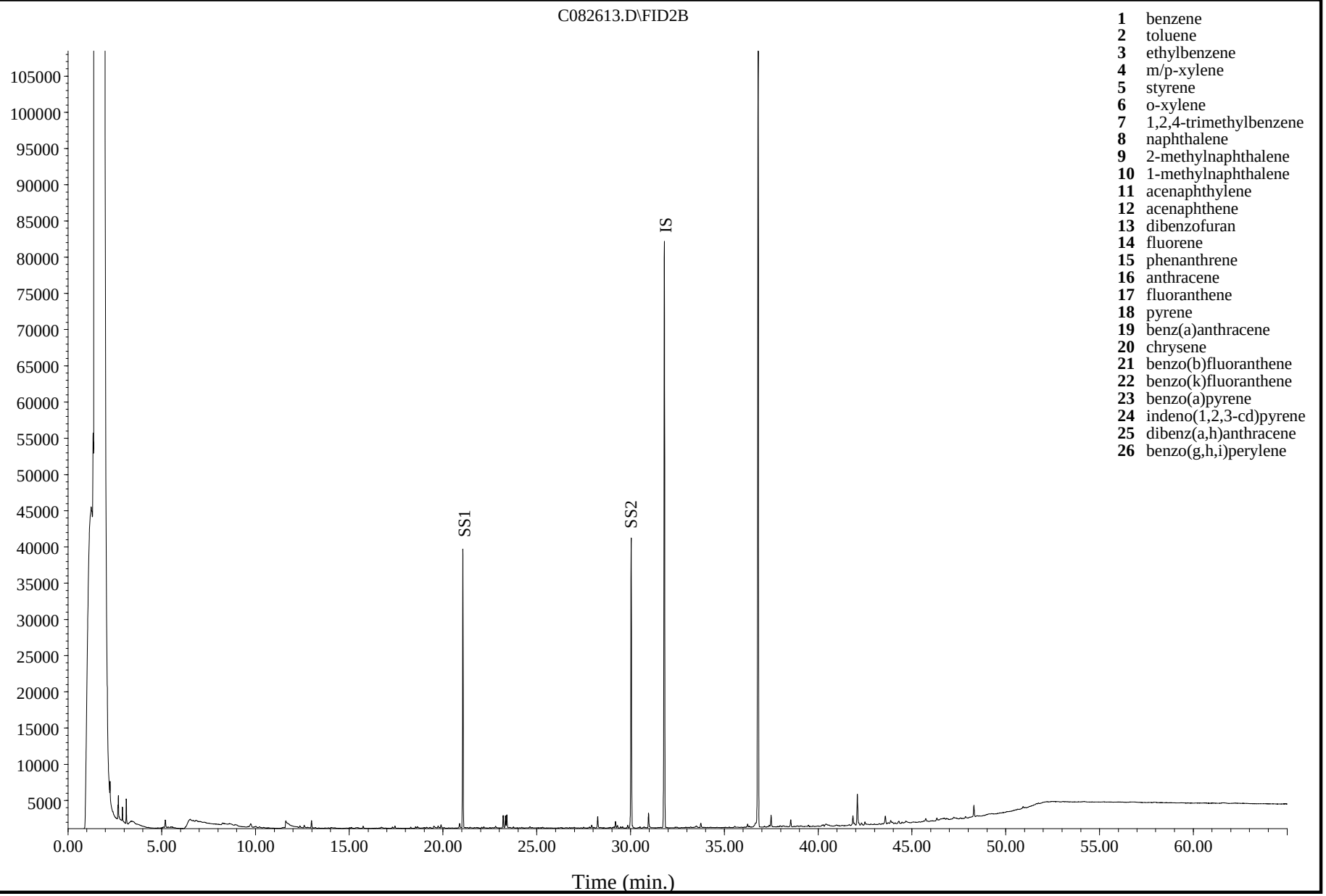


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-90-02**
Laboratory ID: TT100819-03
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

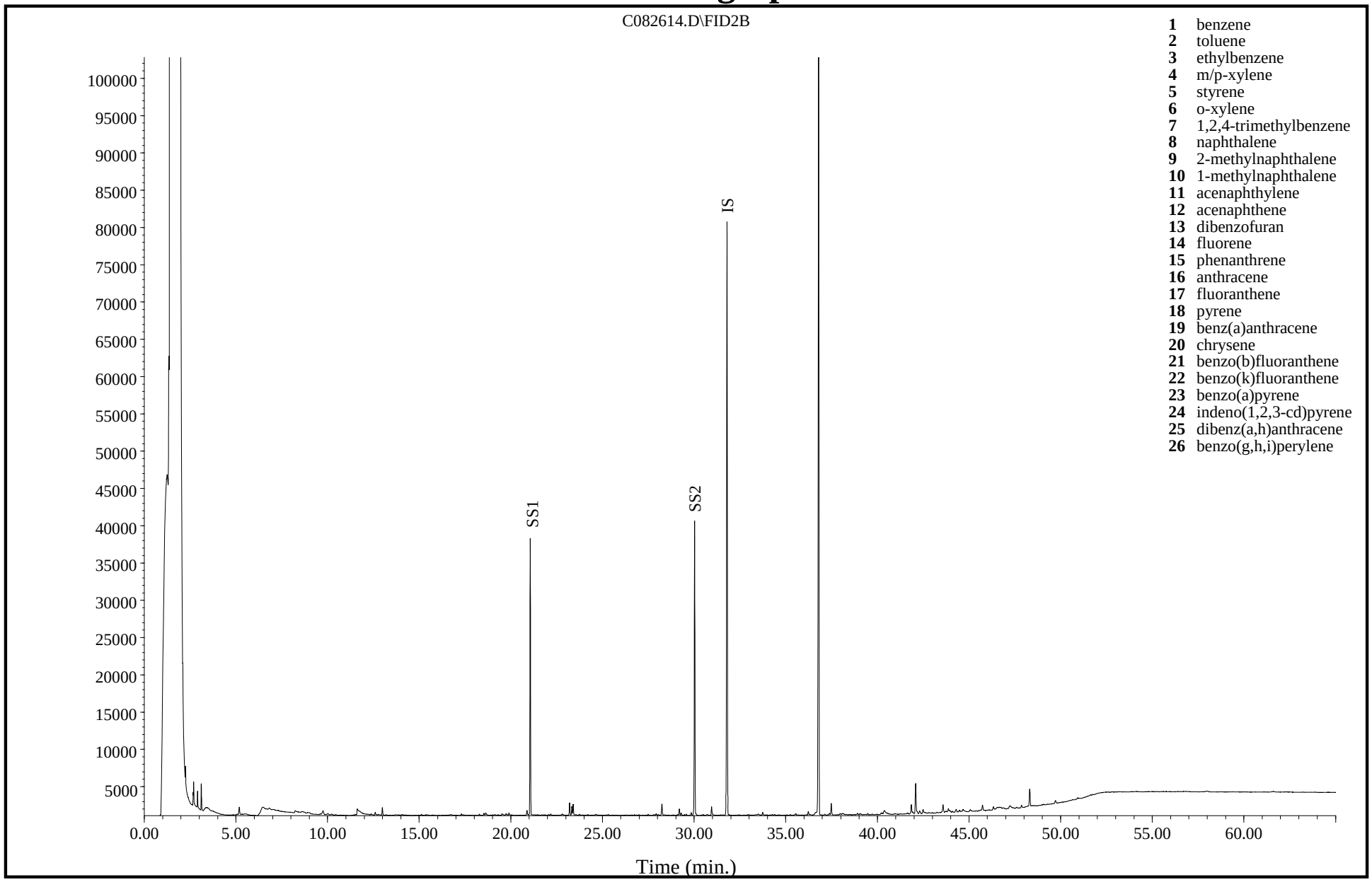


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-94-SS**
Laboratory ID: TT100819-04
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

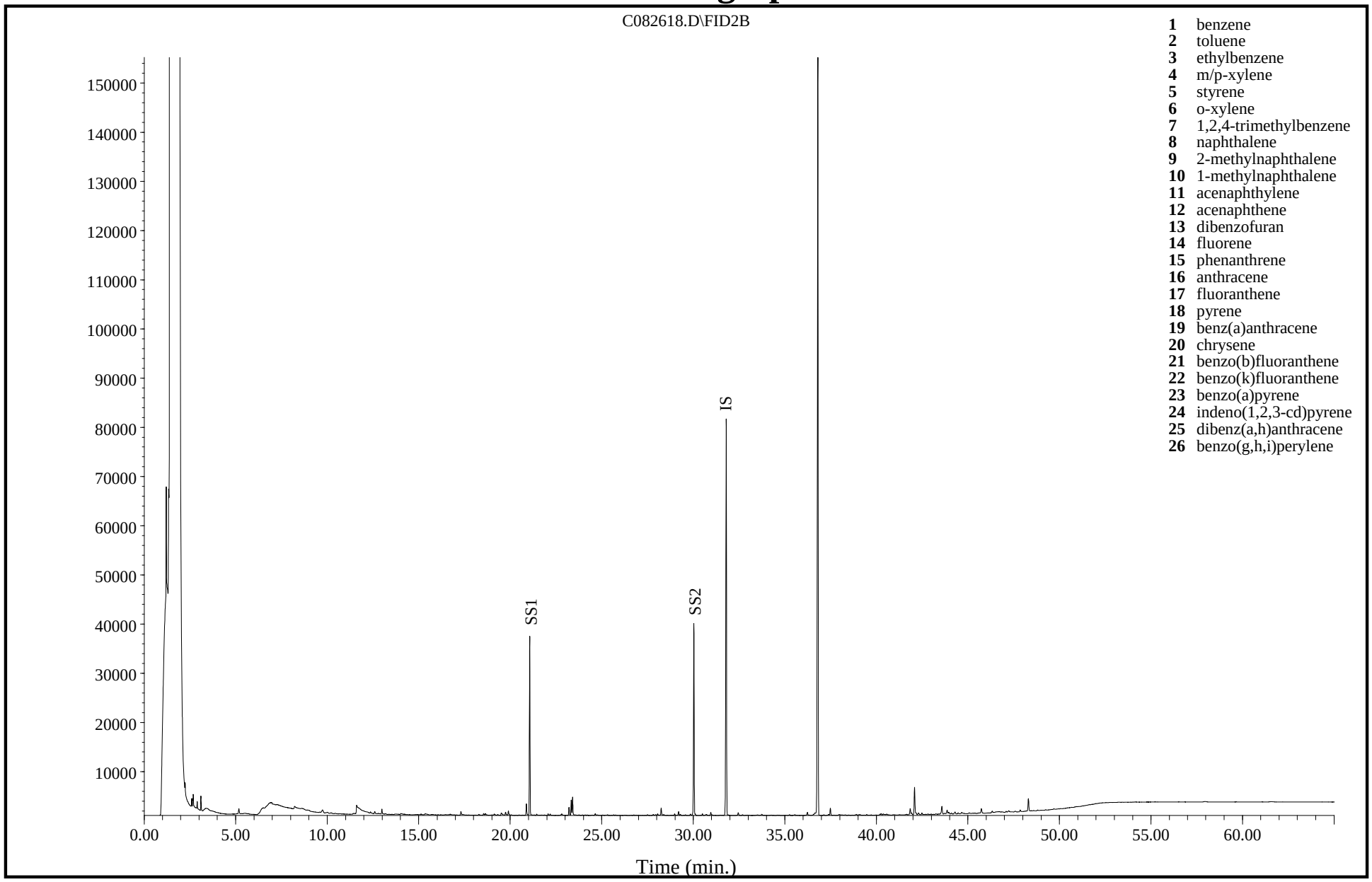


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-94-01**
Laboratory ID: TT100819-05
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

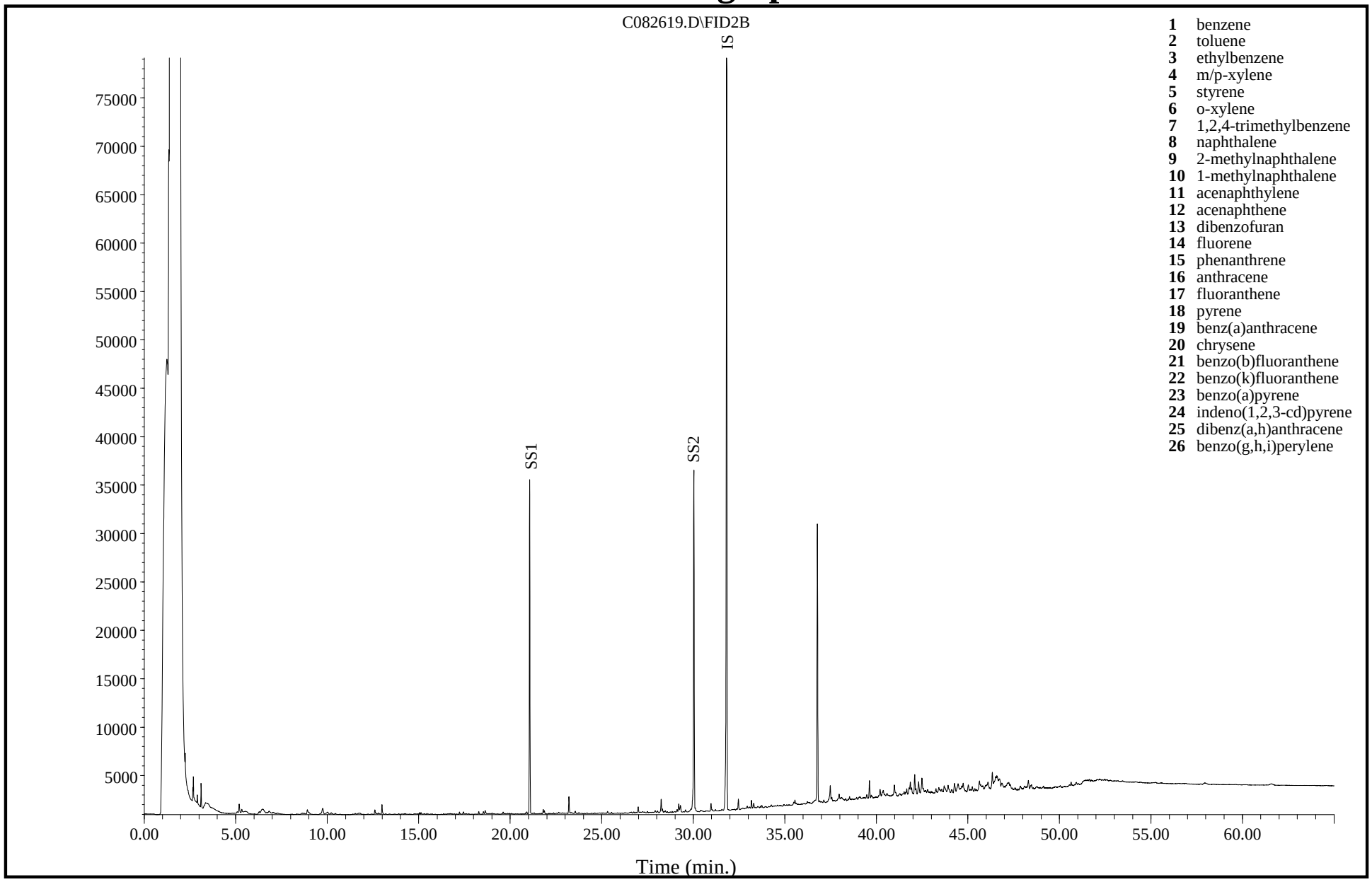


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-94-02**
Laboratory ID: TT100819-06
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

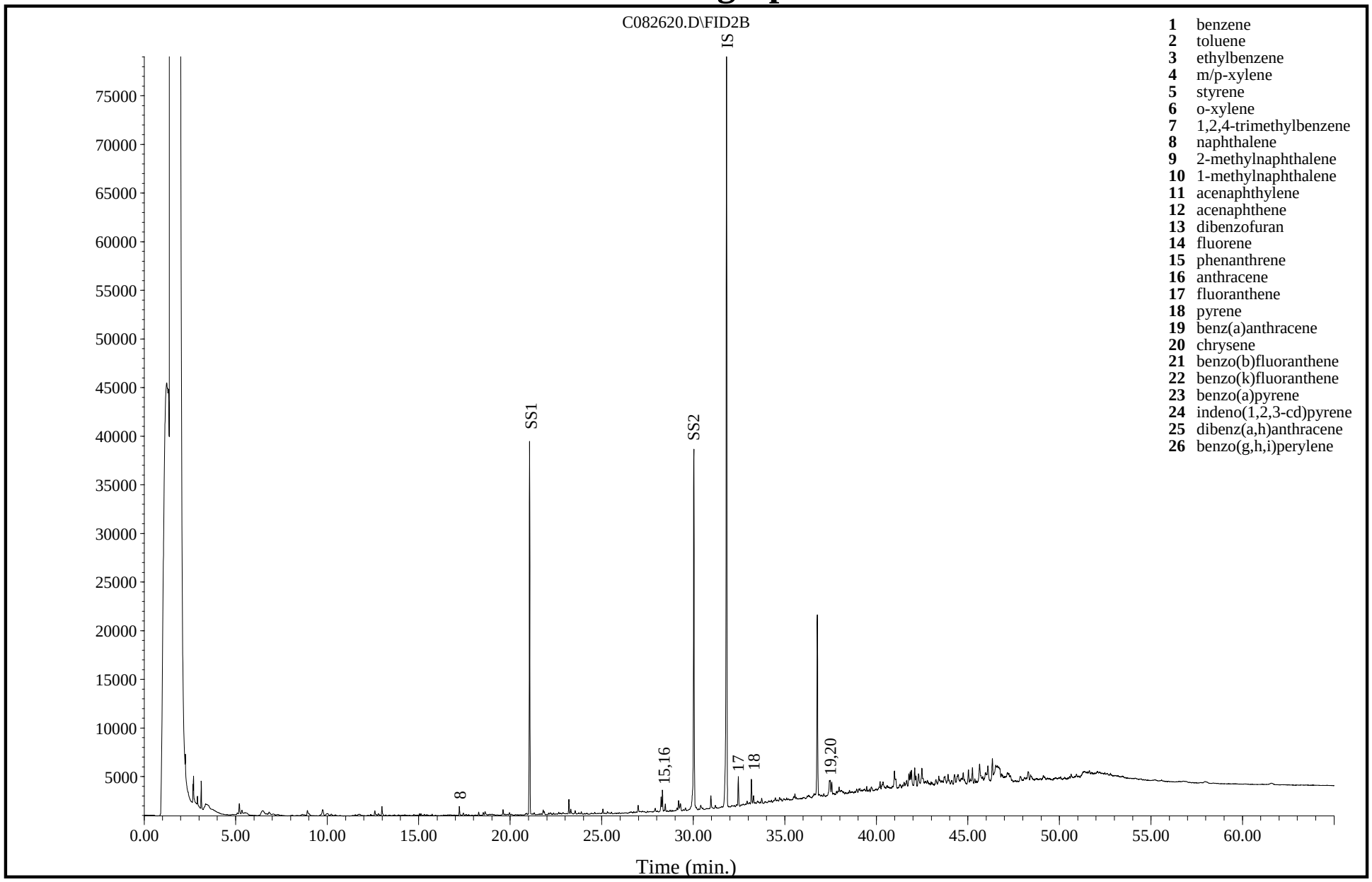


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-97-SS**
Laboratory ID: TT100819-07
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

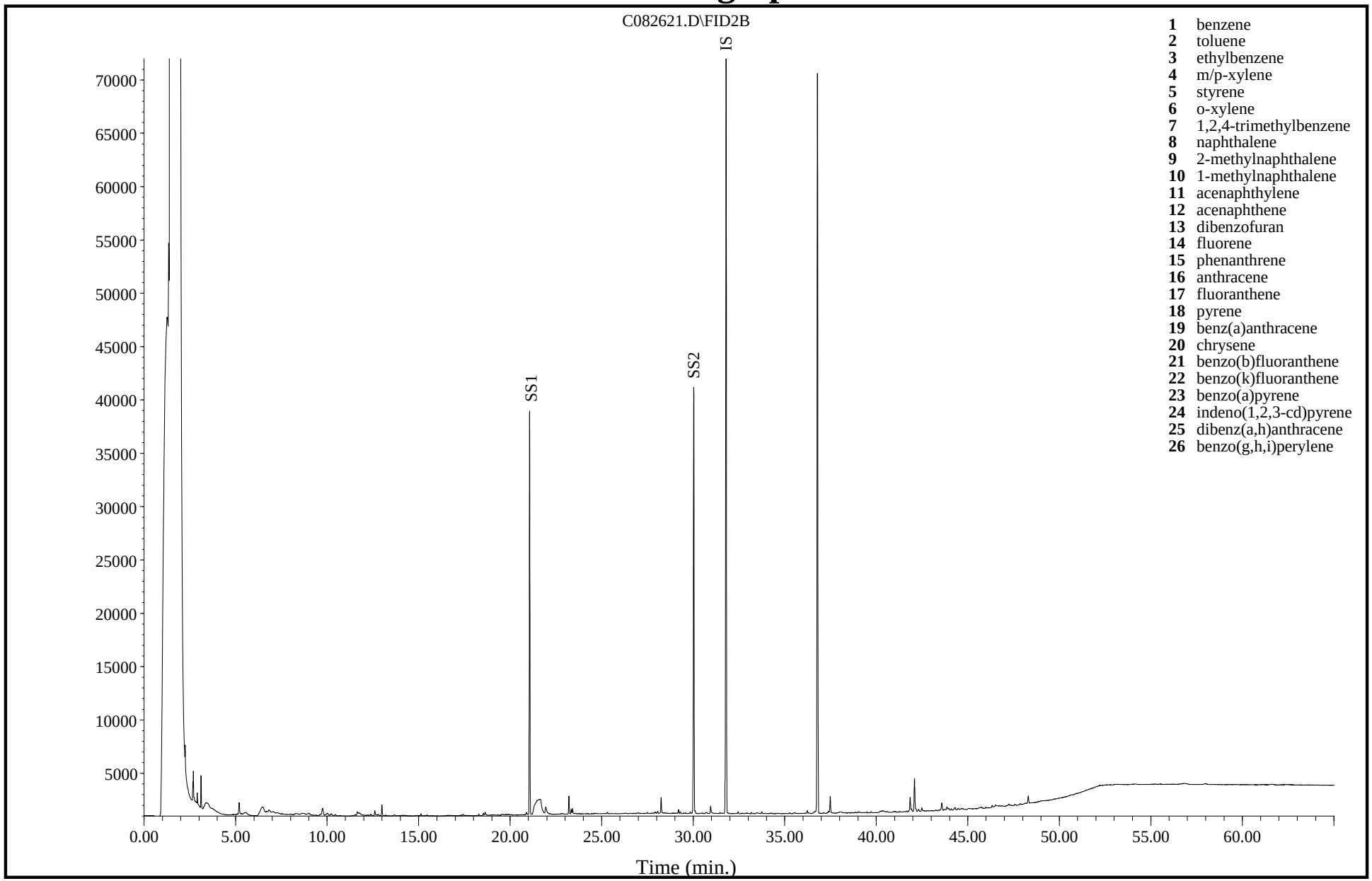


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-97-01**
Laboratory ID: TT100819-08
Method: EPA 8100M

GC/FID Fingerprint

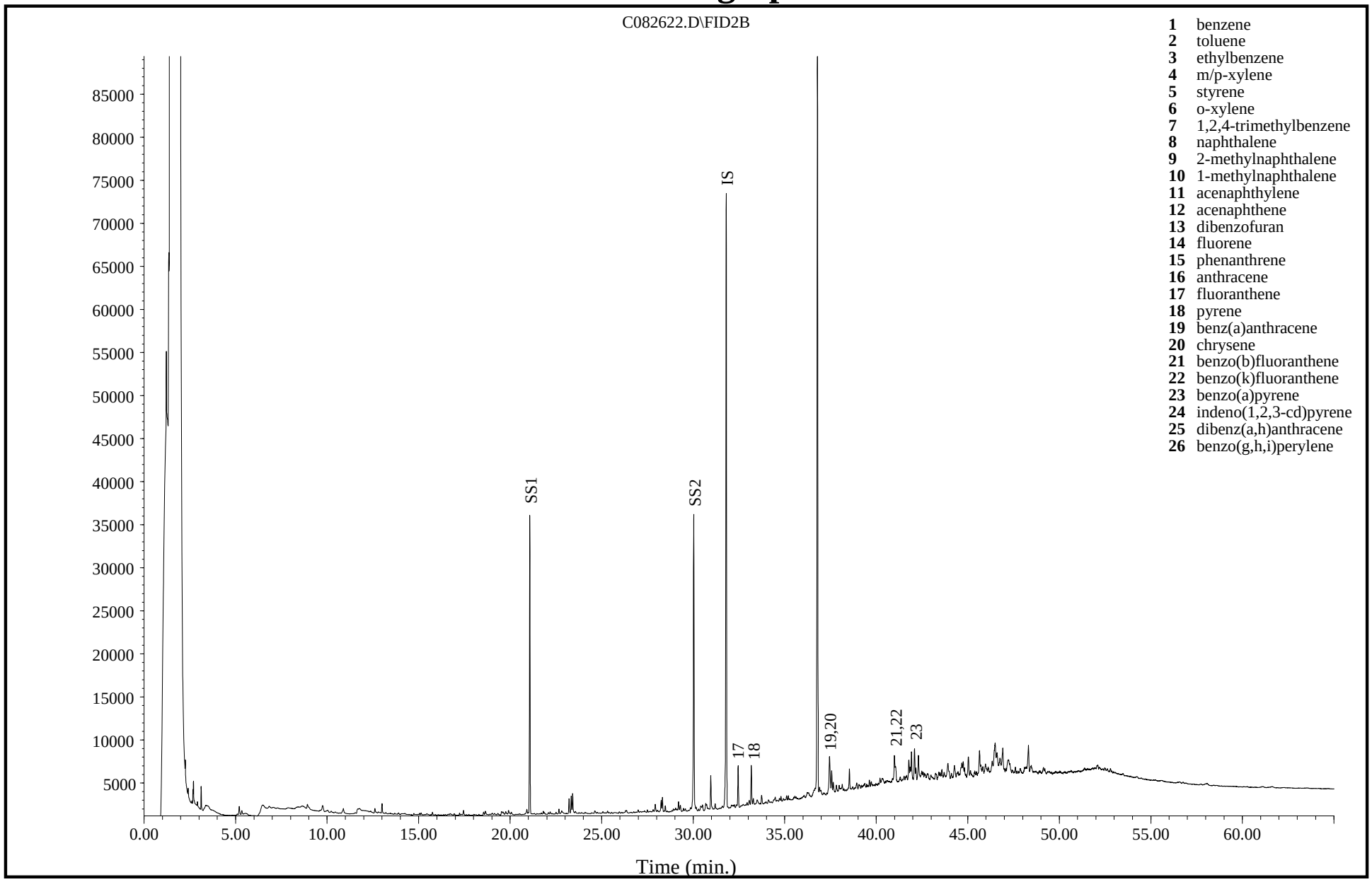


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-97-02**
Laboratory ID: TT100819-09
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint



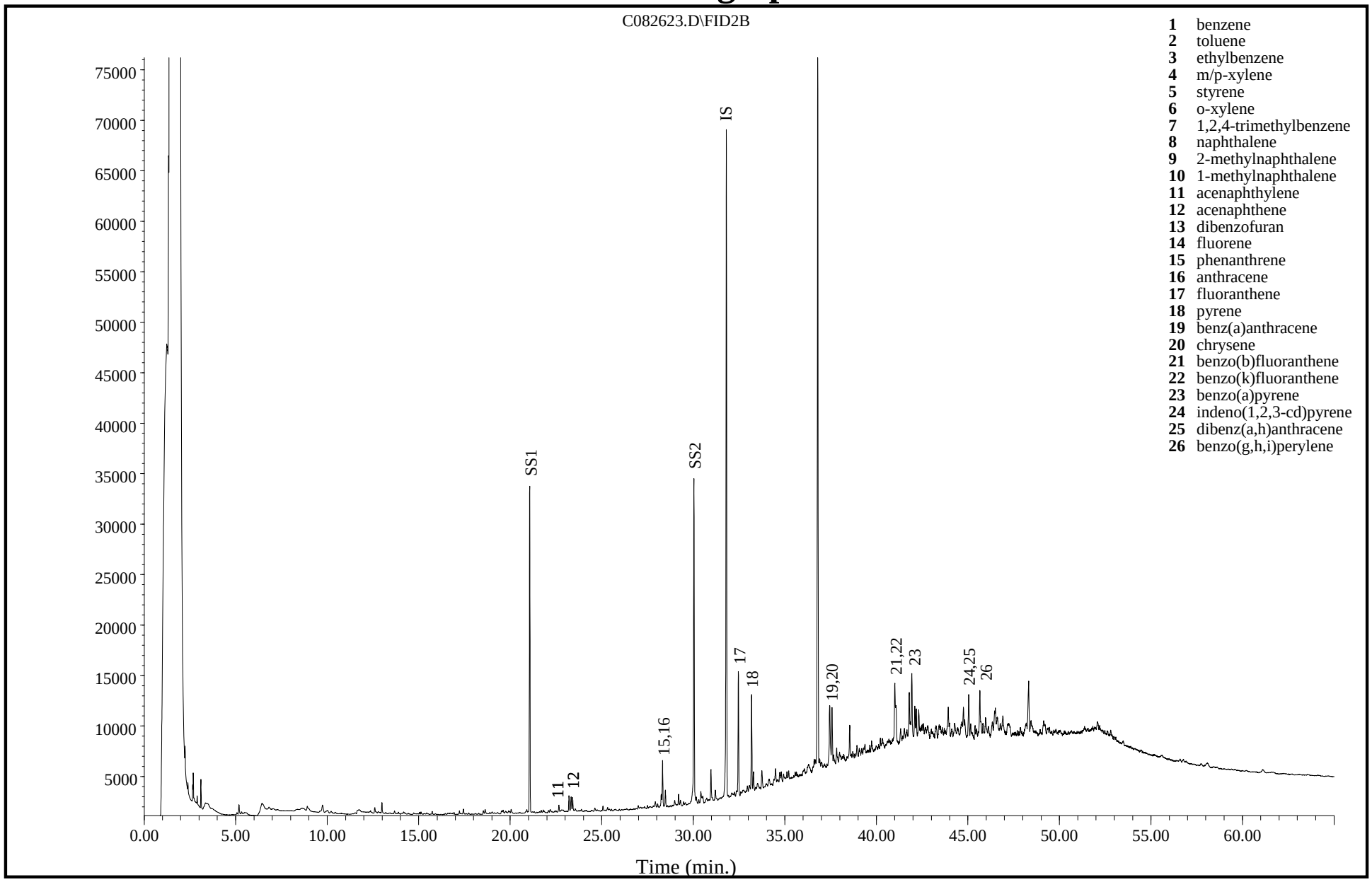
Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-87-SS**
Laboratory ID: TT100819-10
Method: EPA 8100M

META

GC/FID Fingerprint

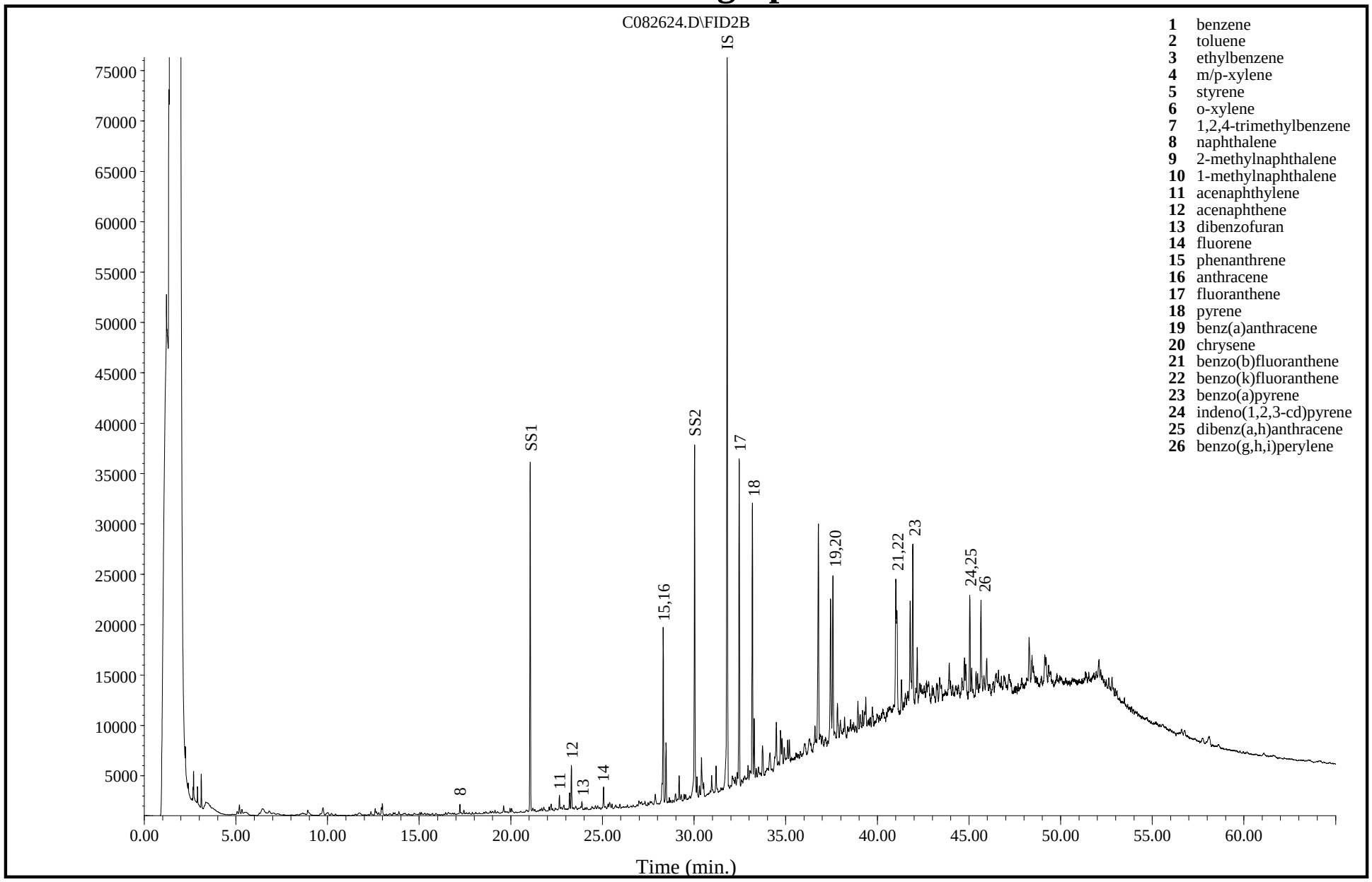


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-87-01**
Laboratory ID: TT100819-11
Method: EPA 8100M

GC/FID Fingerprint

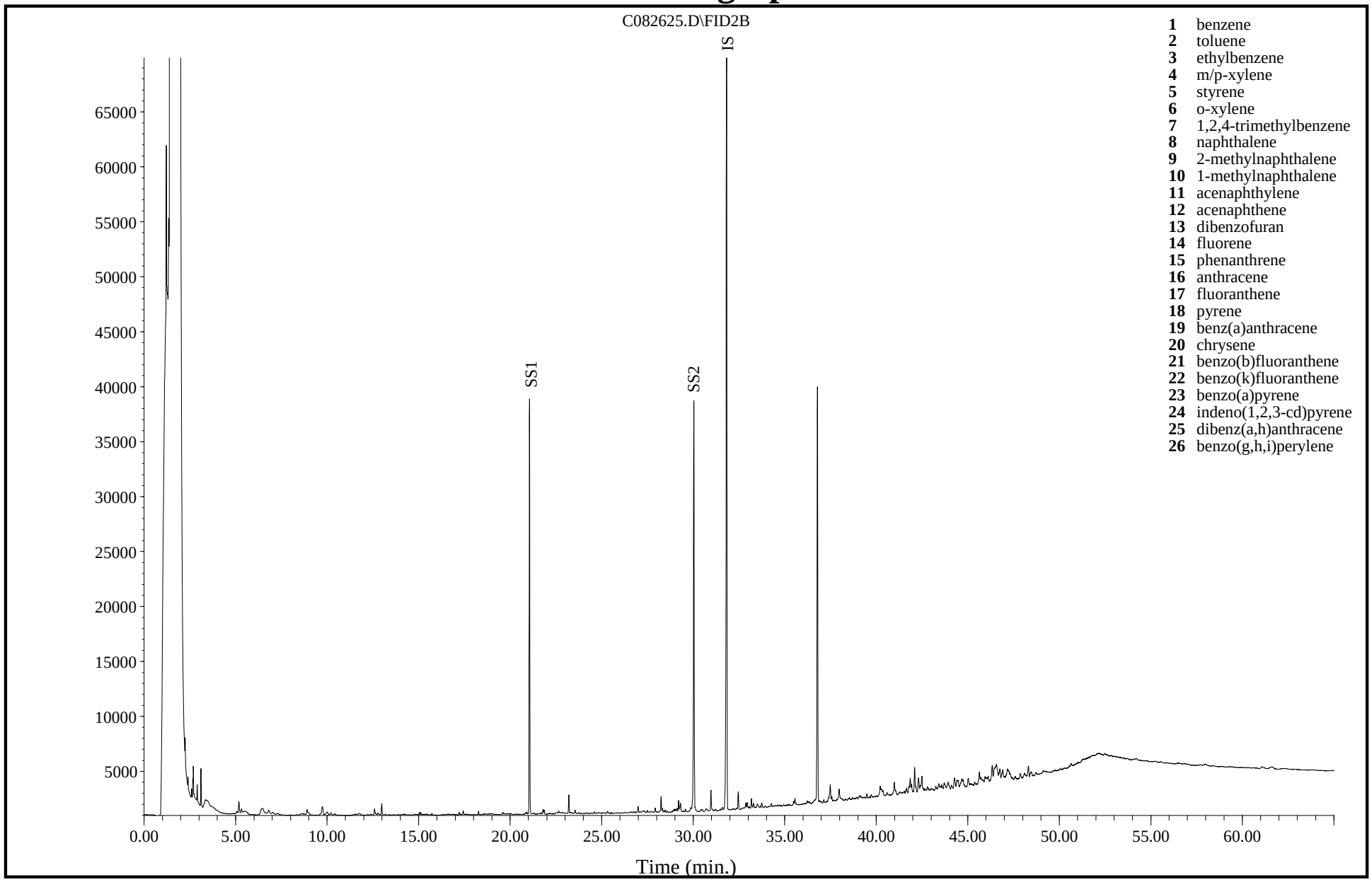


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-87-02**
Laboratory ID: TT100819-12
Method: EPA 8100M

GC/FID Fingerprint

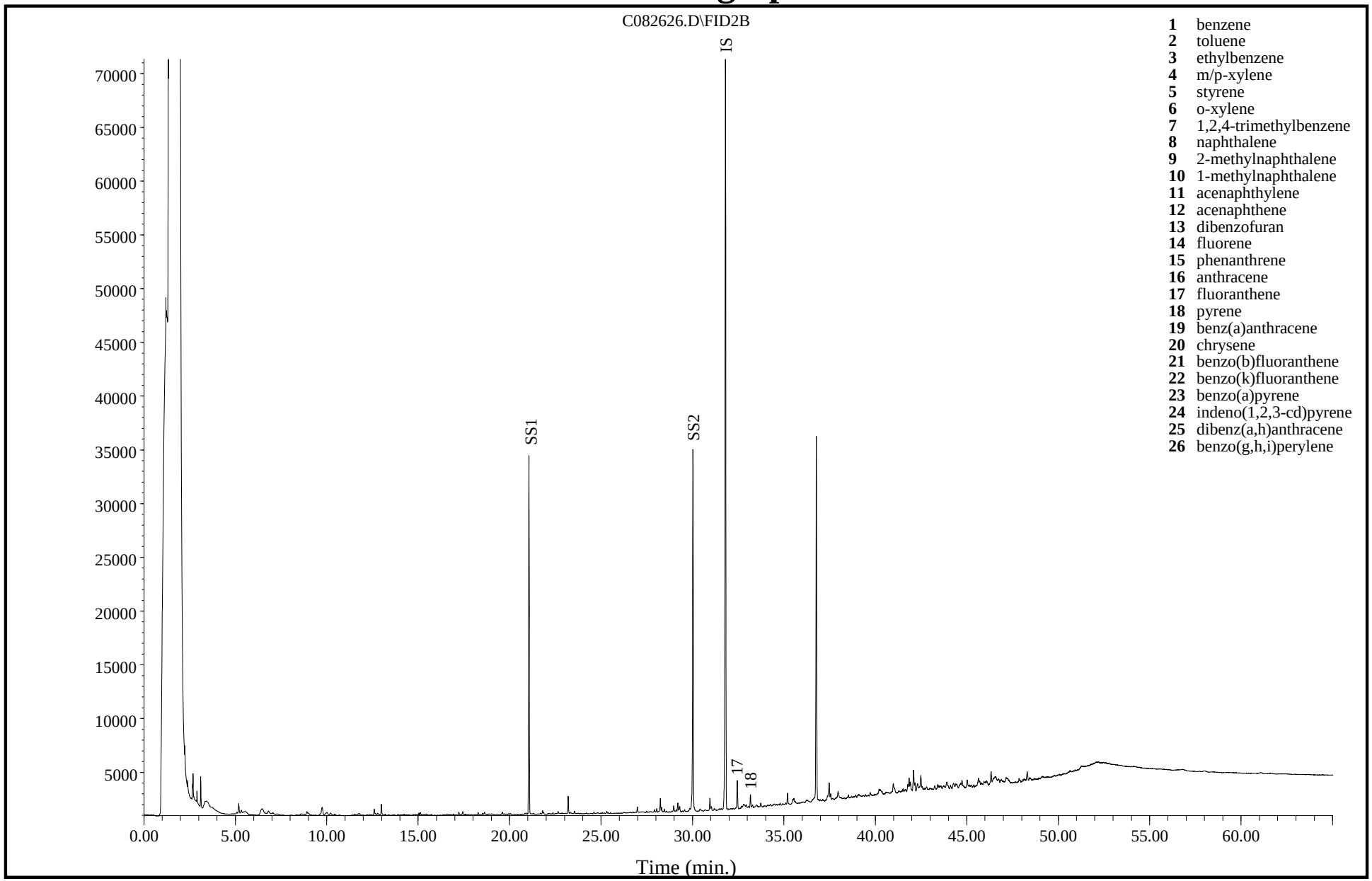


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

Field ID: **SD-101-SS**
Laboratory ID: TT100819-13
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

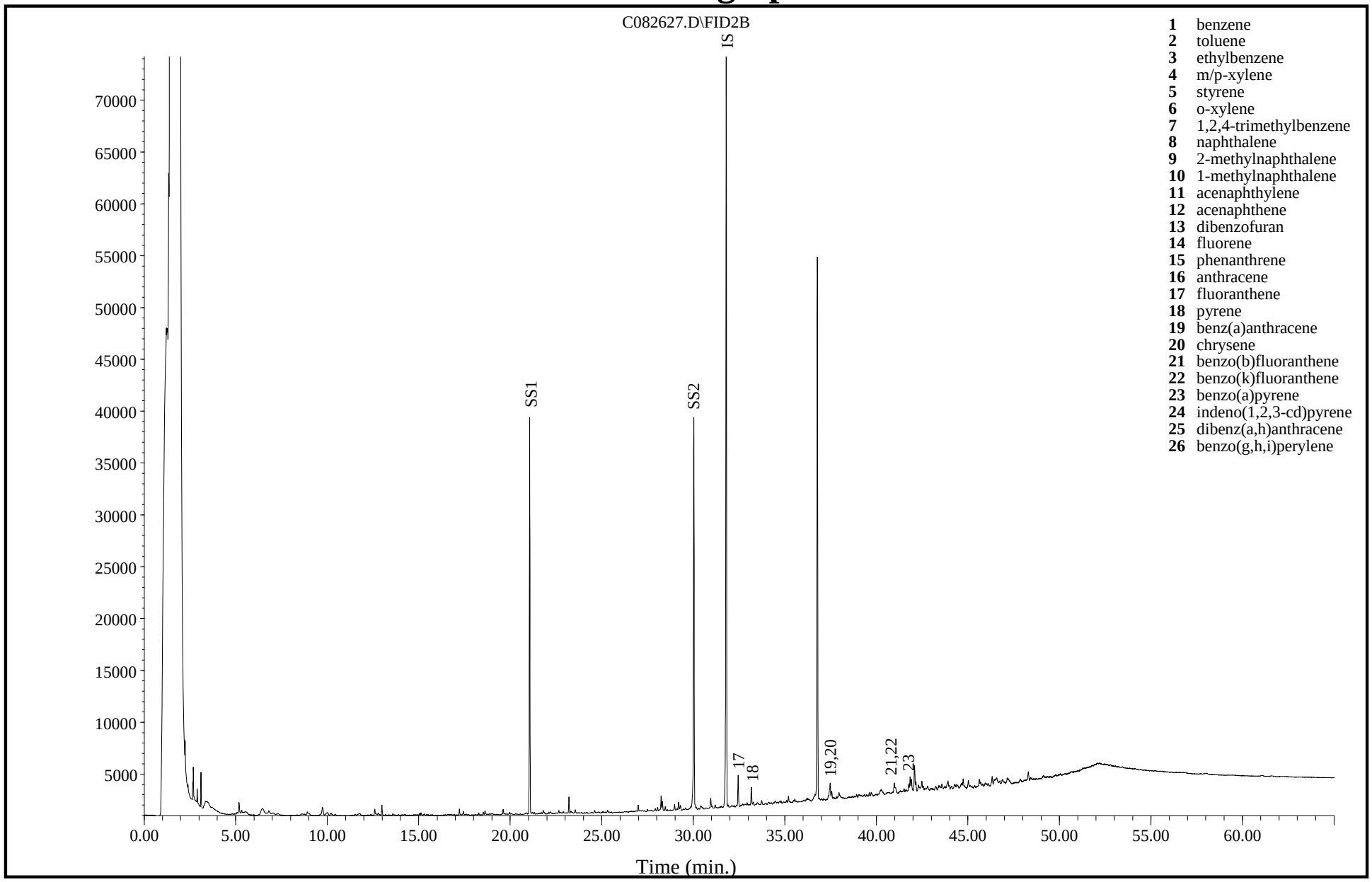


Extraction Date: 08/24/2010
Analysis Date: 08/27/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **SD-101-01**
Laboratory ID: TT100819-14
Method: EPA 8100M

GC/FID Fingerprint

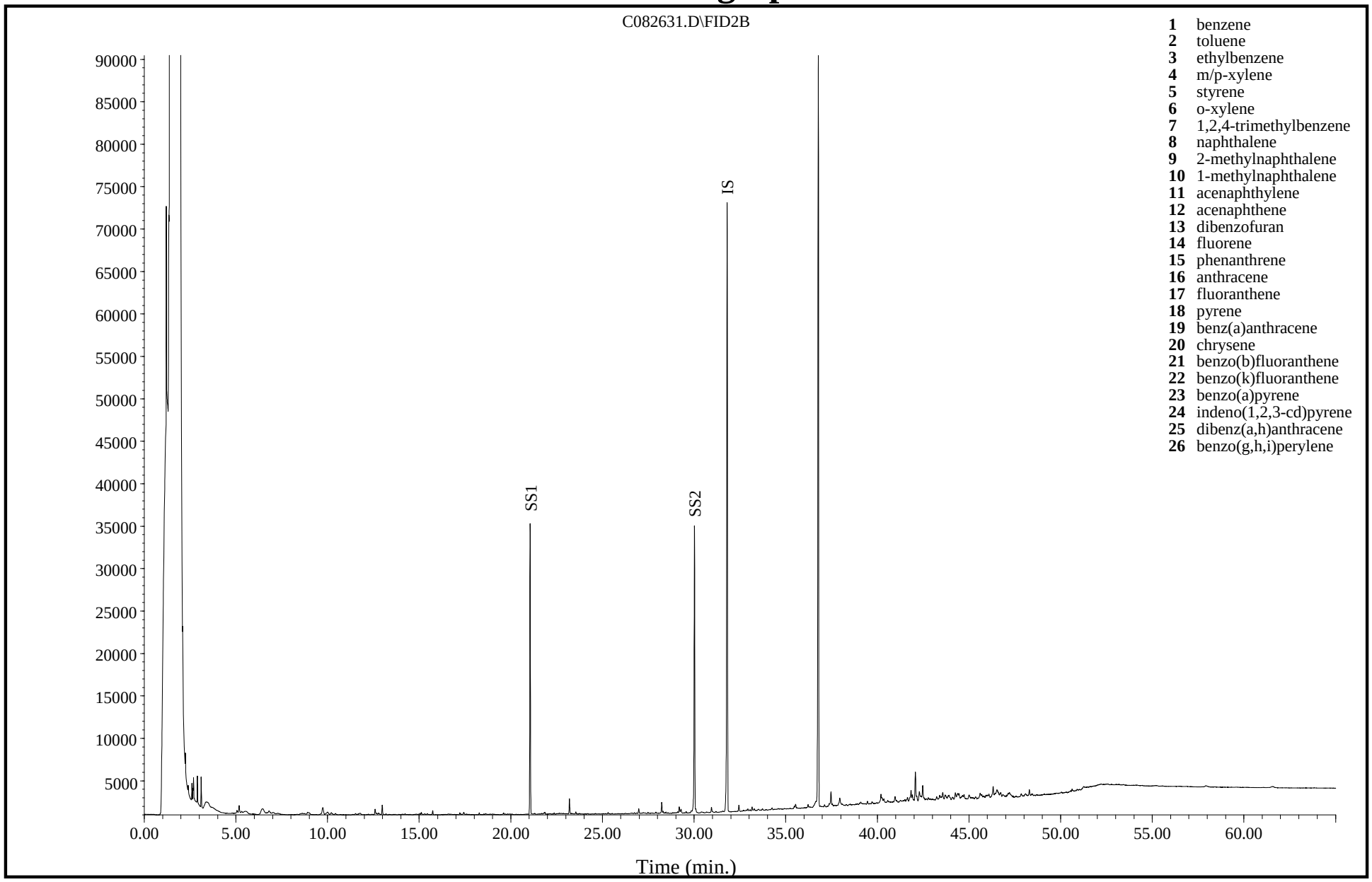


Extraction Date: 08/24/2010
Analysis Date: 08/28/2010

Field ID: **SD-101-02**
Laboratory ID: TT100819-15
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

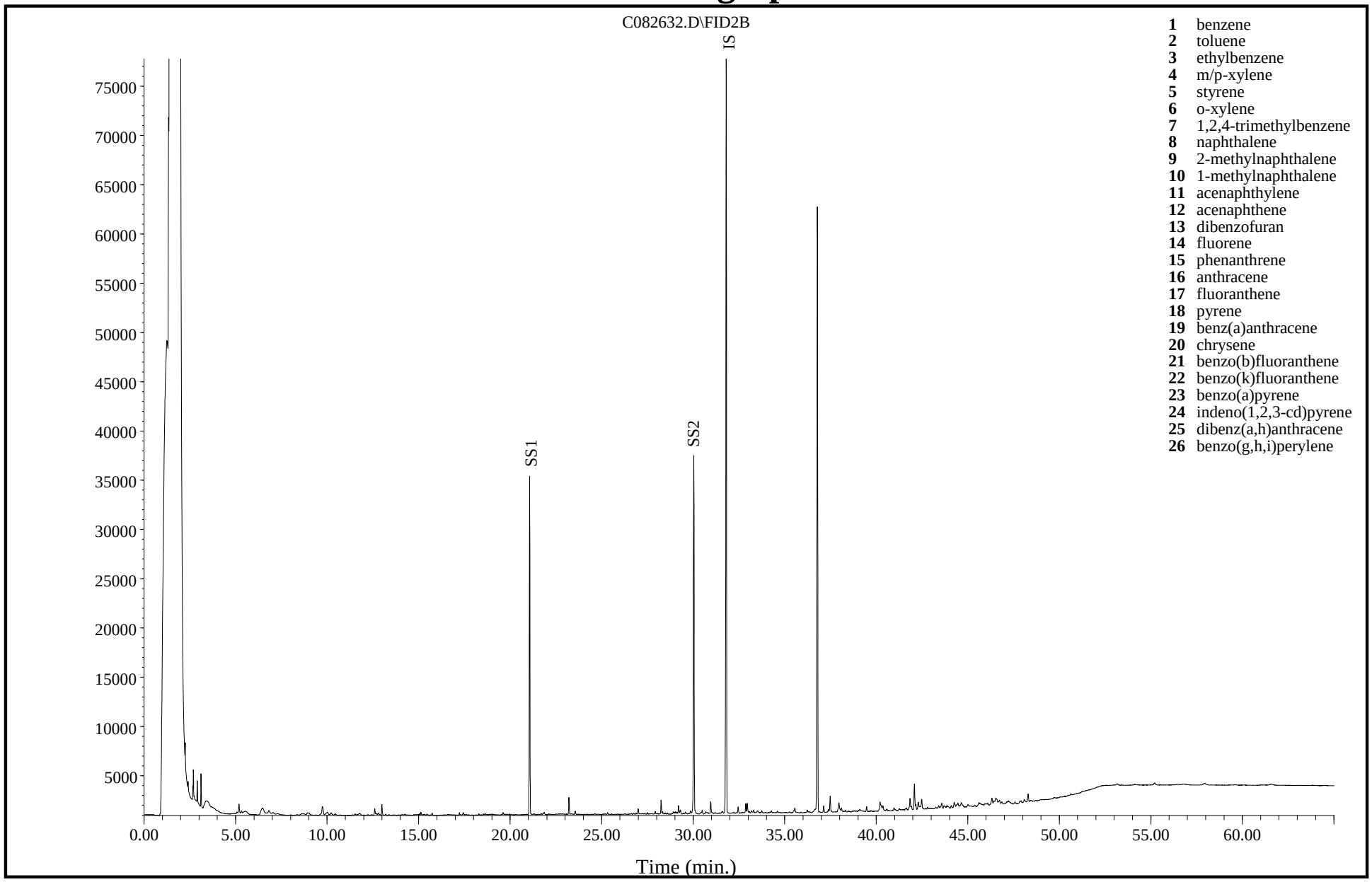


Extraction Date: 08/24/2010
Analysis Date: 08/28/2010

Field ID: **Middle River Downstream-SS**
Laboratory ID: TT100824-01
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

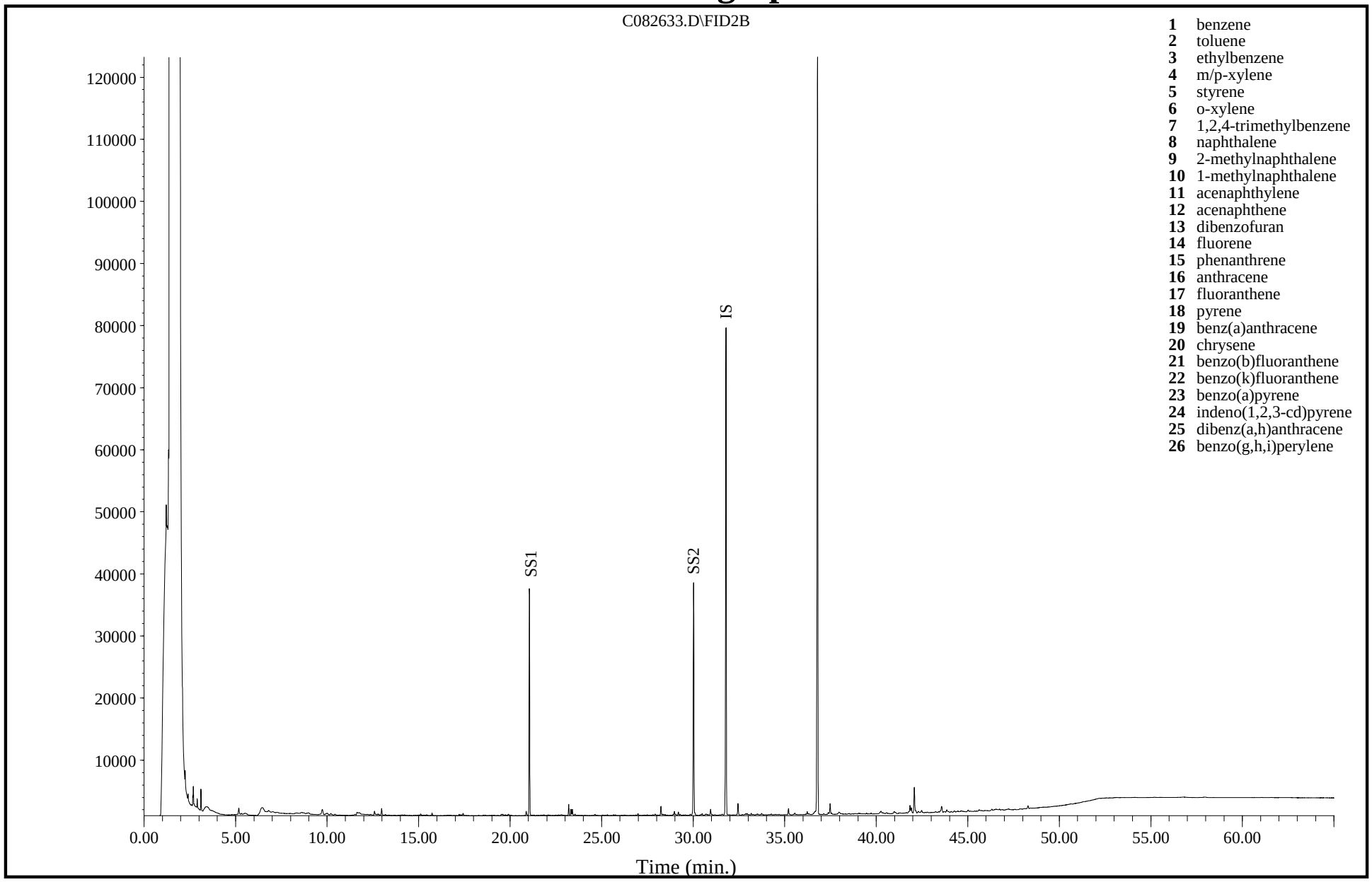


Extraction Date: 08/24/2010
Analysis Date: 08/28/2010

Field ID: **Marshy Point-SS**
Laboratory ID: TT100824-02
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

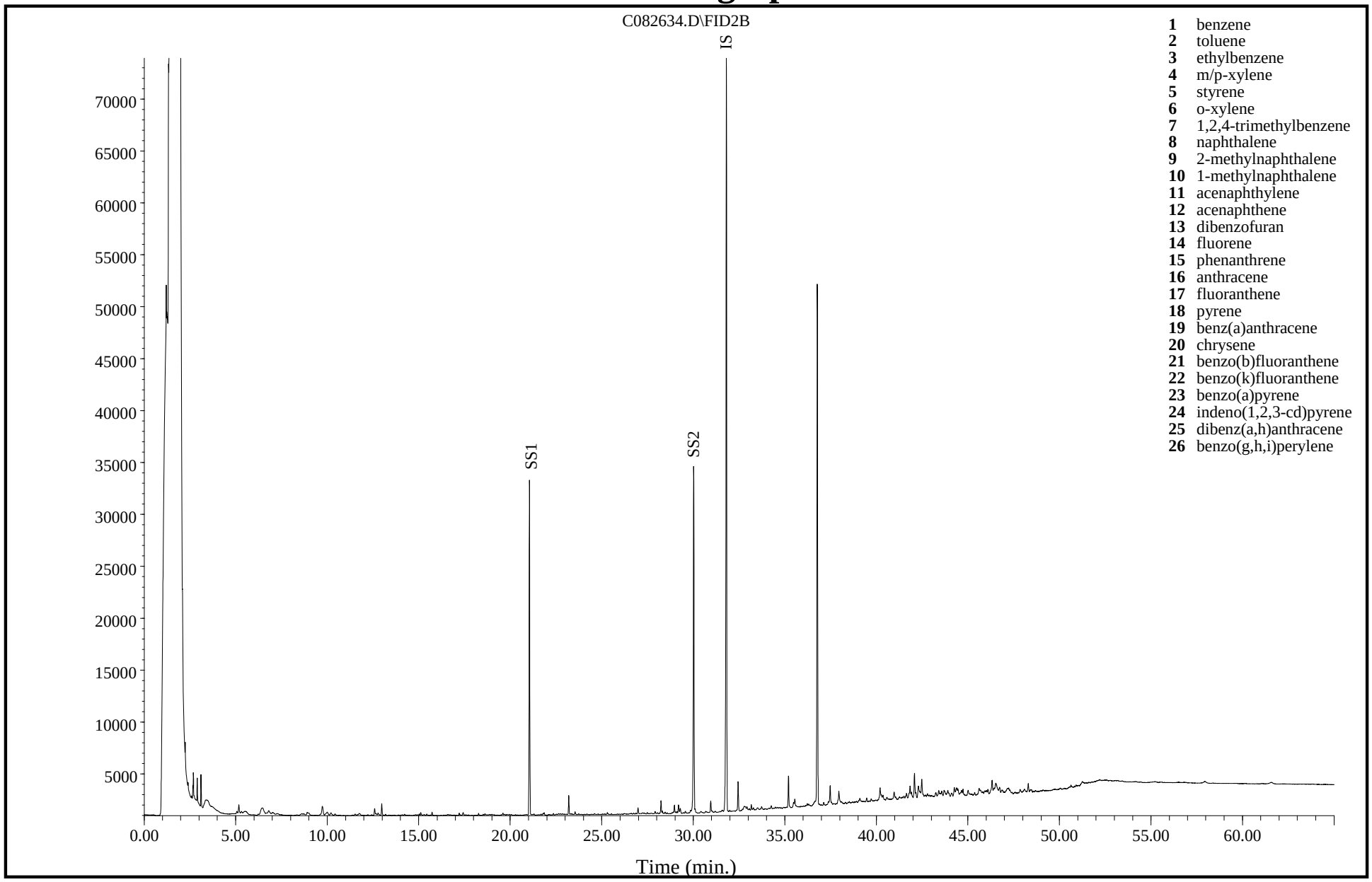


Extraction Date: 08/24/2010
Analysis Date: 08/28/2010

Field ID: **Bowley's Quarters-SS**
Laboratory ID: TT100824-03
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

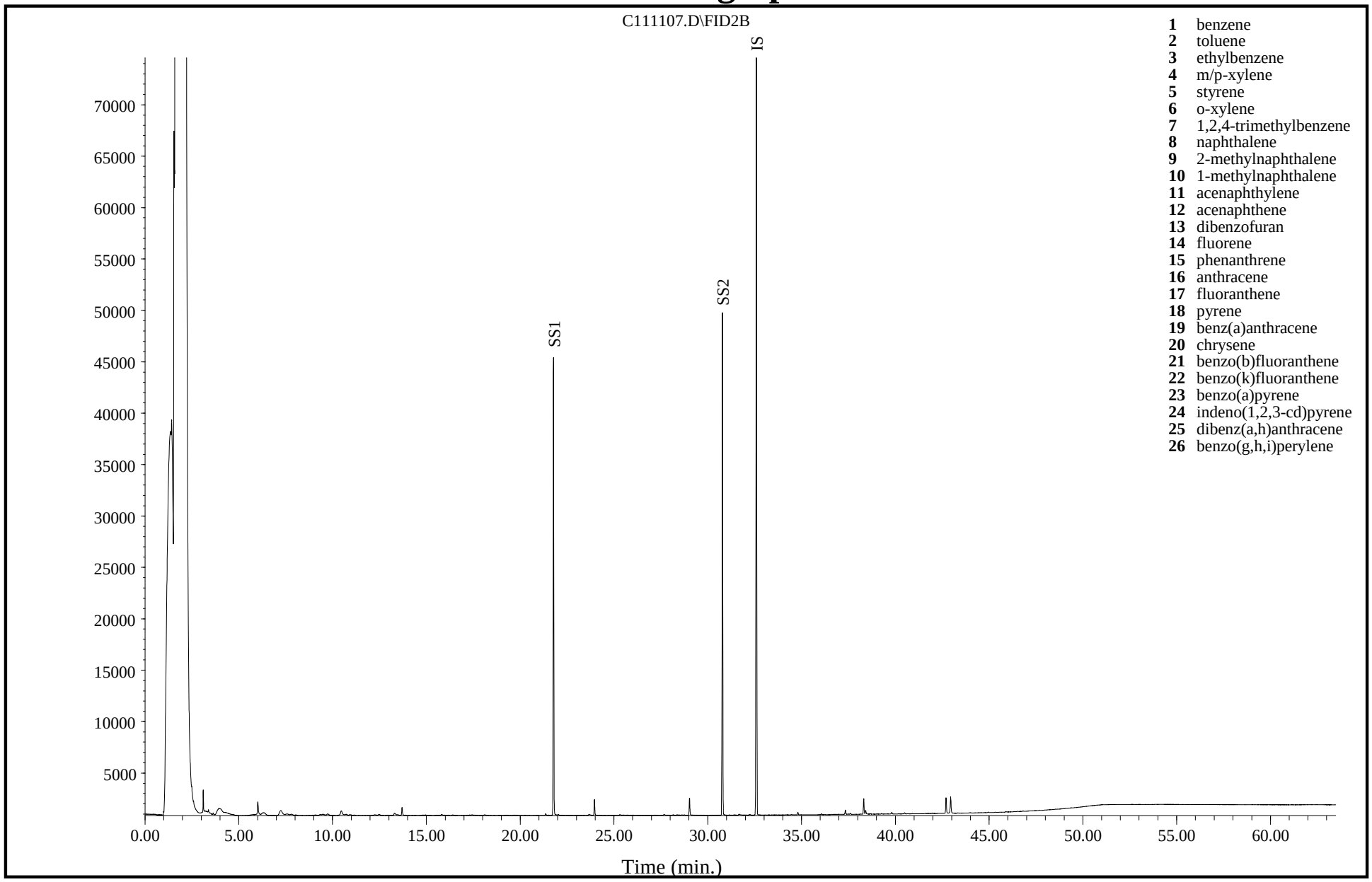


Extraction Date: 08/24/2010
Analysis Date: 08/28/2010

Field ID: **MR-Dup 6-SS**
Laboratory ID: TT100824-04
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

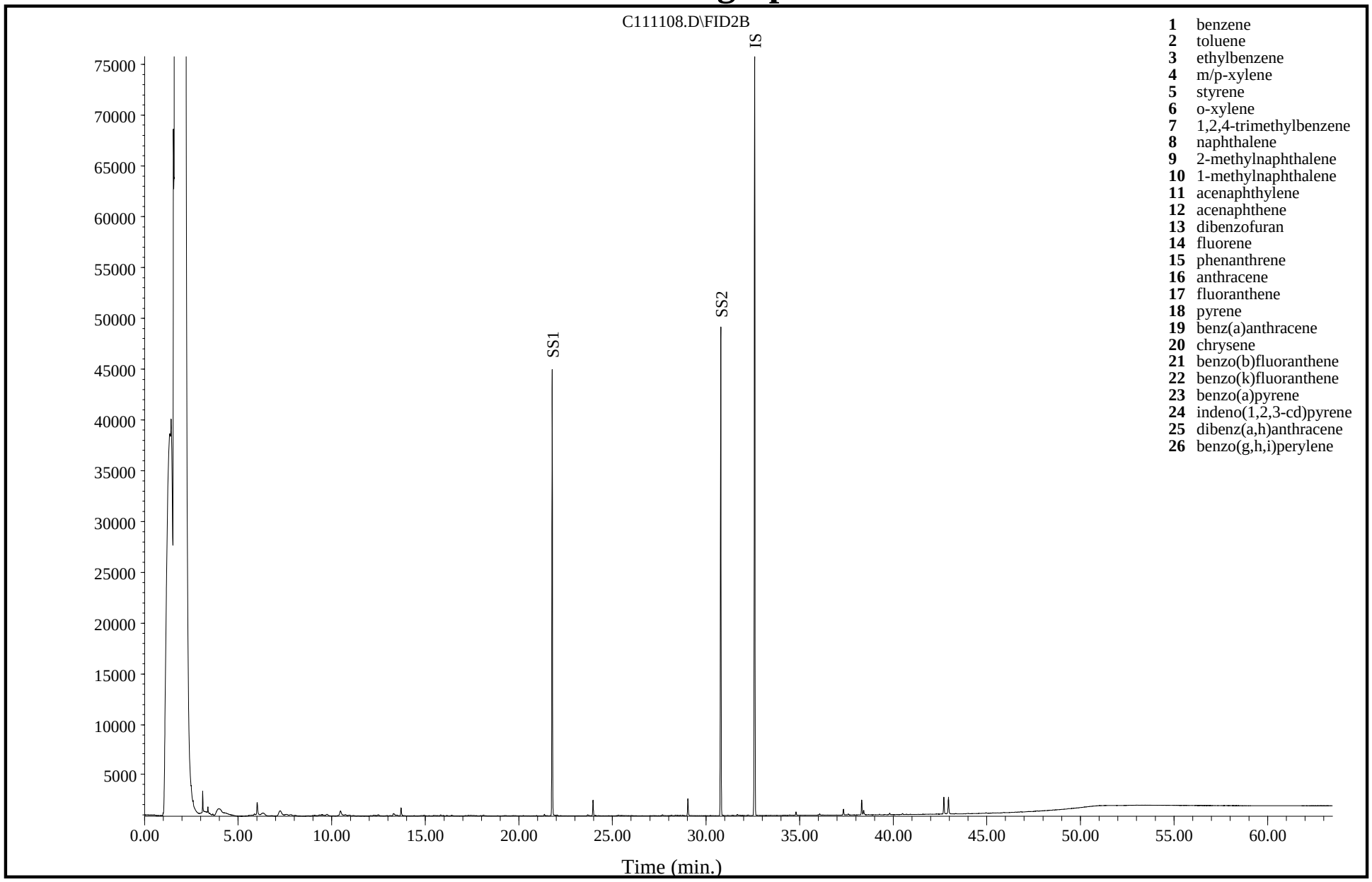


Extraction Date: 10/20/2010
Analysis Date: 11/11/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **MRC-SW-1**
Laboratory ID: TT101015-01
Method: EPA 8100M

GC/FID Fingerprint

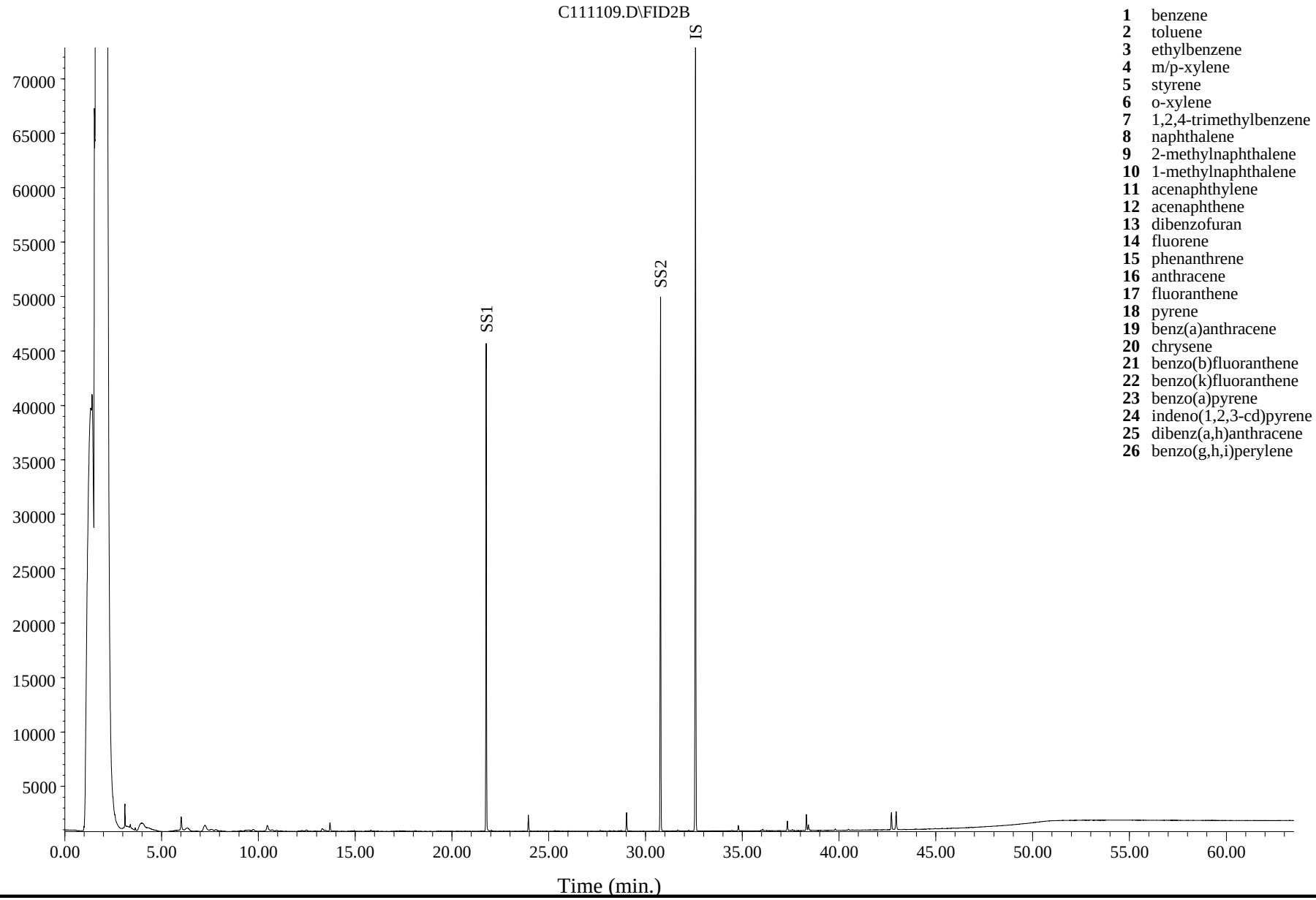


Extraction Date: 10/20/2010
Analysis Date: 11/11/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **MRC-SW-1**
Laboratory ID: TT101015-01DUP
Method: EPA 8100M

GC/FID Fingerprint

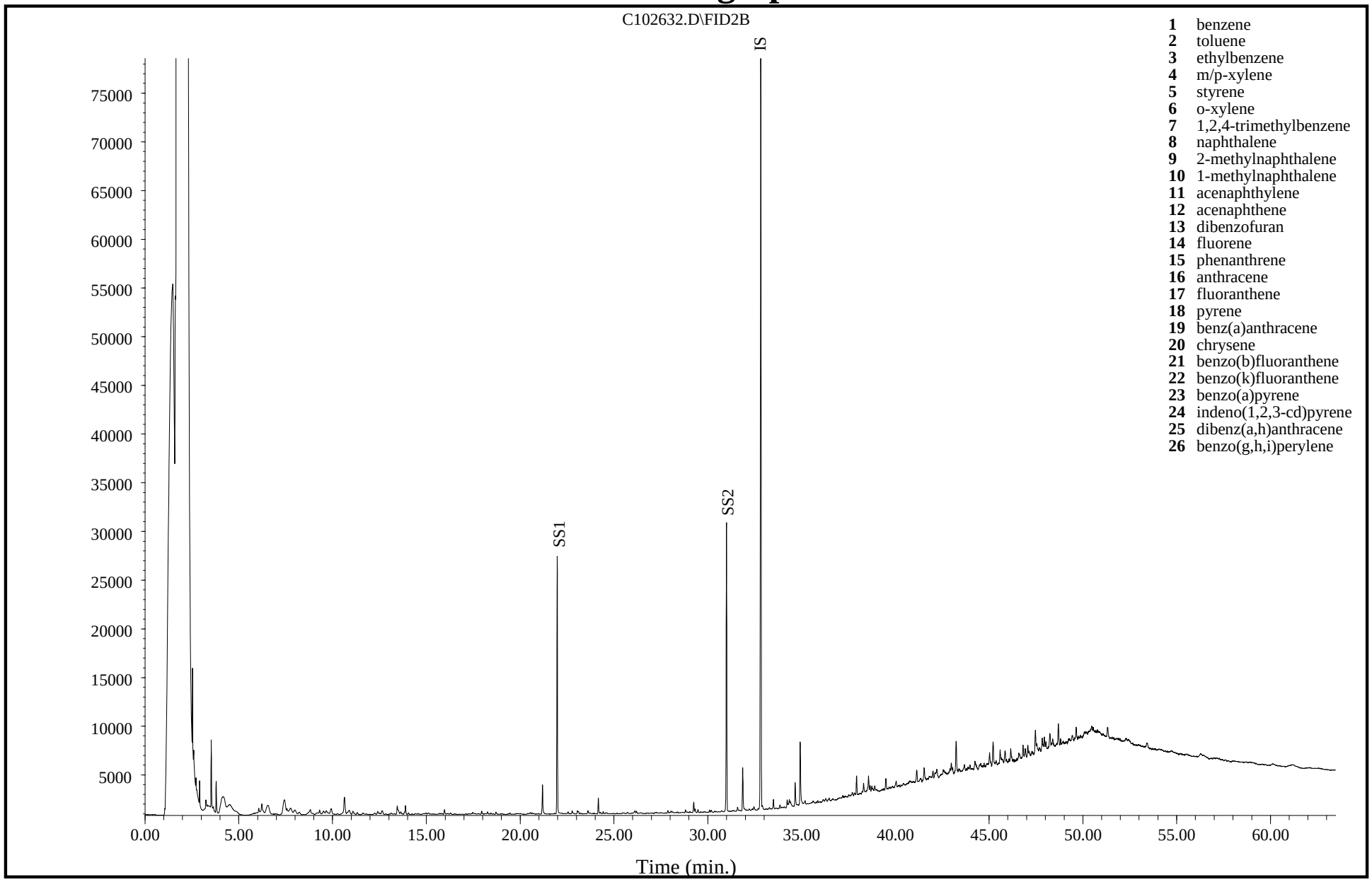


Extraction Date: 10/20/2010
Analysis Date: 11/11/2010

Field ID: **MSA-SW-1**
Laboratory ID: TT101015-02
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint

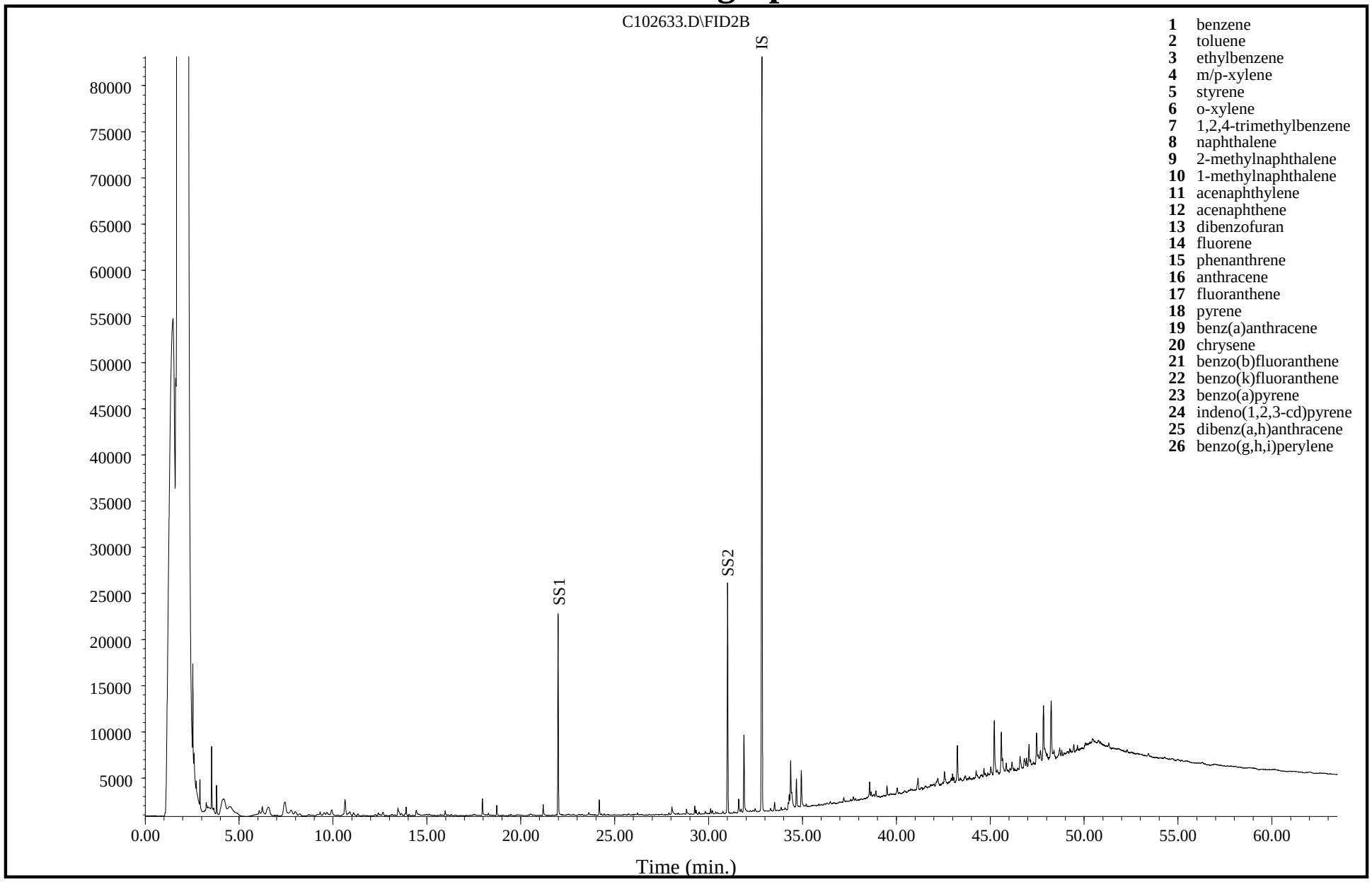


Extraction Date: 10/22/2010
Analysis Date: 10/28/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **MRC-SED-1**
Laboratory ID: TT101015-03
Method: EPA 8100M

GC/FID Fingerprint



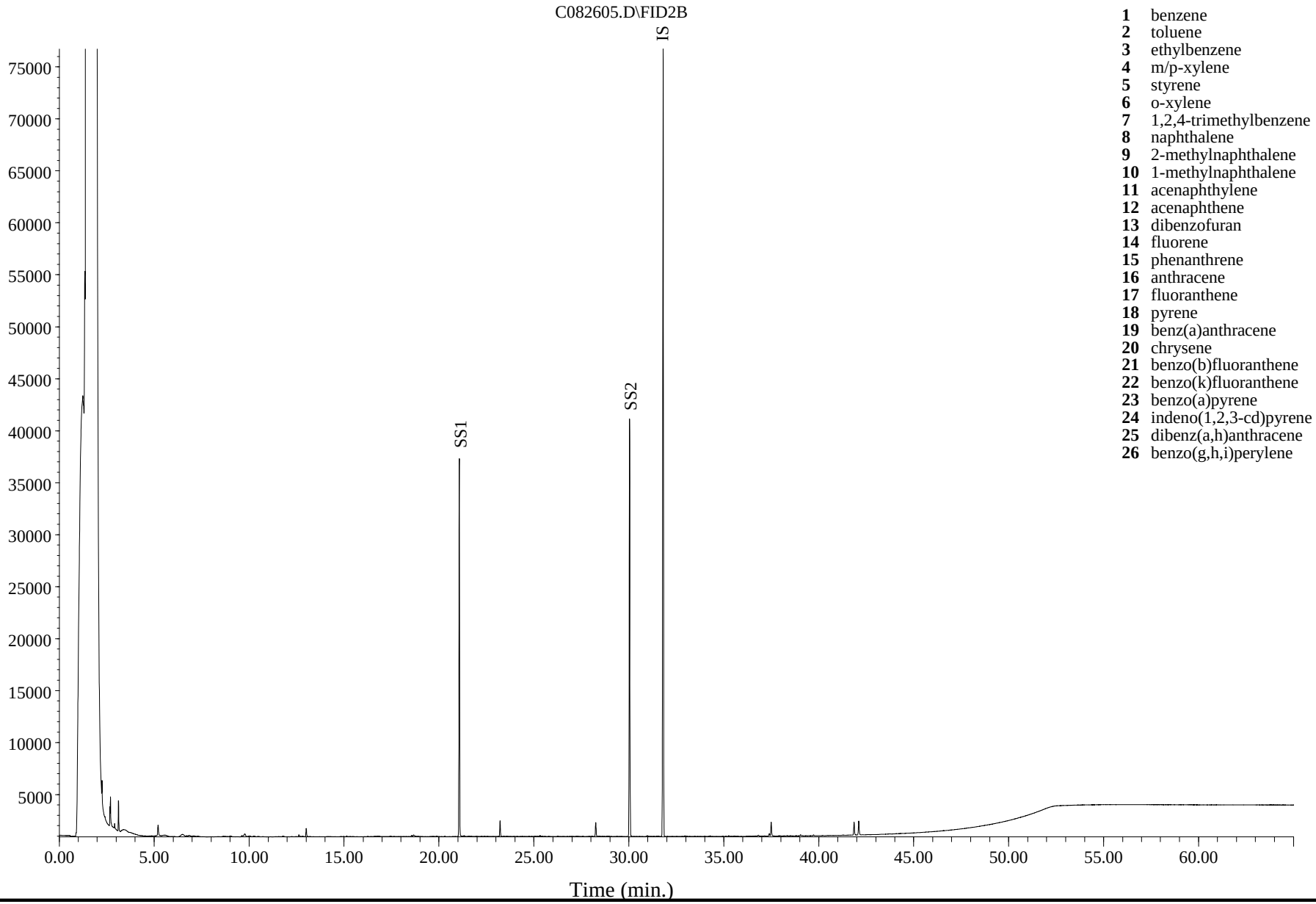
Extraction Date: 10/22/2010
Analysis Date: 10/28/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **MRC-SED-1**
Laboratory ID: TT101015-03DUP
Method: EPA 8100M

META

GC/FID Fingerprint

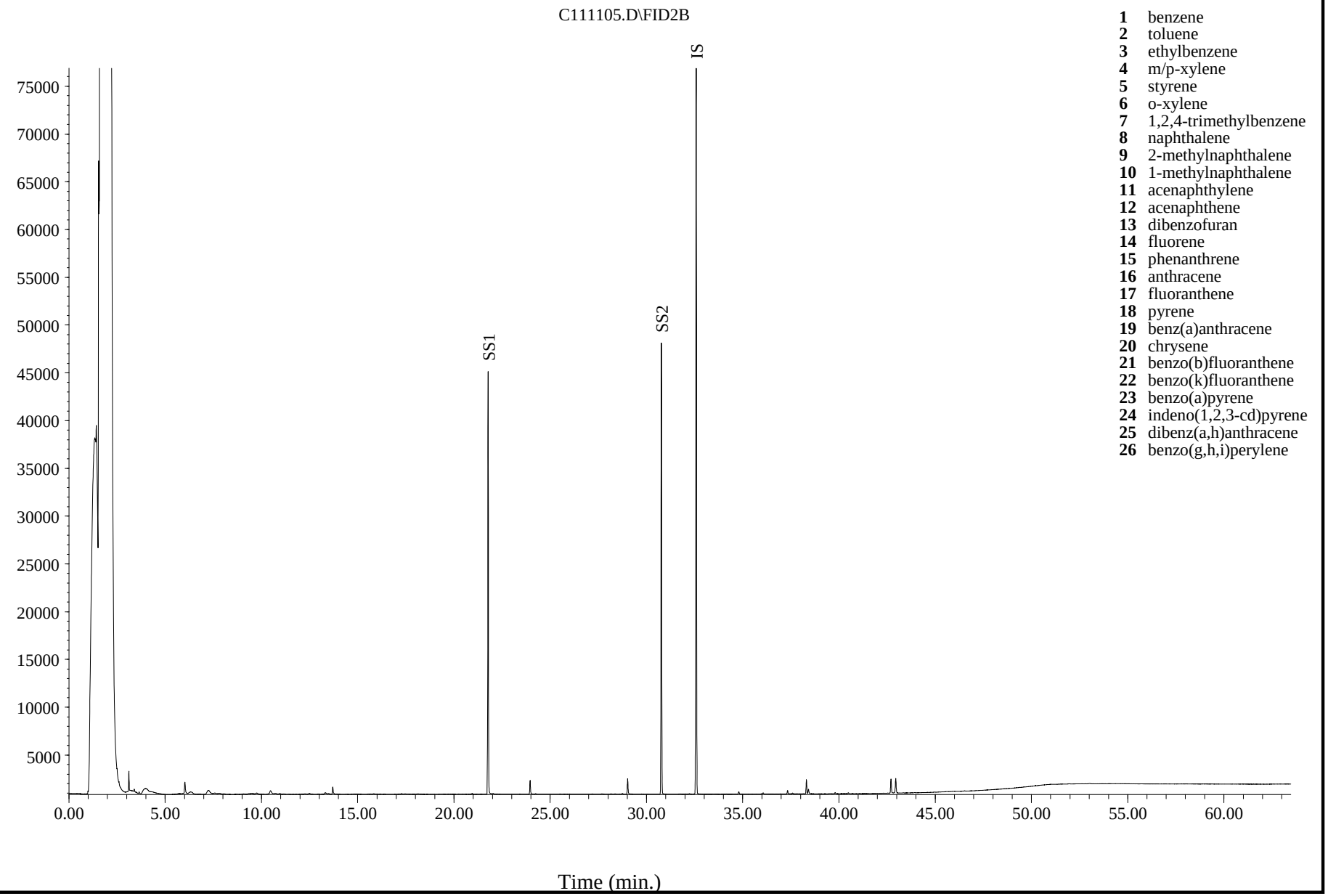


Extraction Date: 08/24/2010
Analysis Date: 08/26/2010

Field ID: **Soil Blank**
Laboratory ID: QC100824-SB
Method: EPA 8100M

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

GC/FID Fingerprint



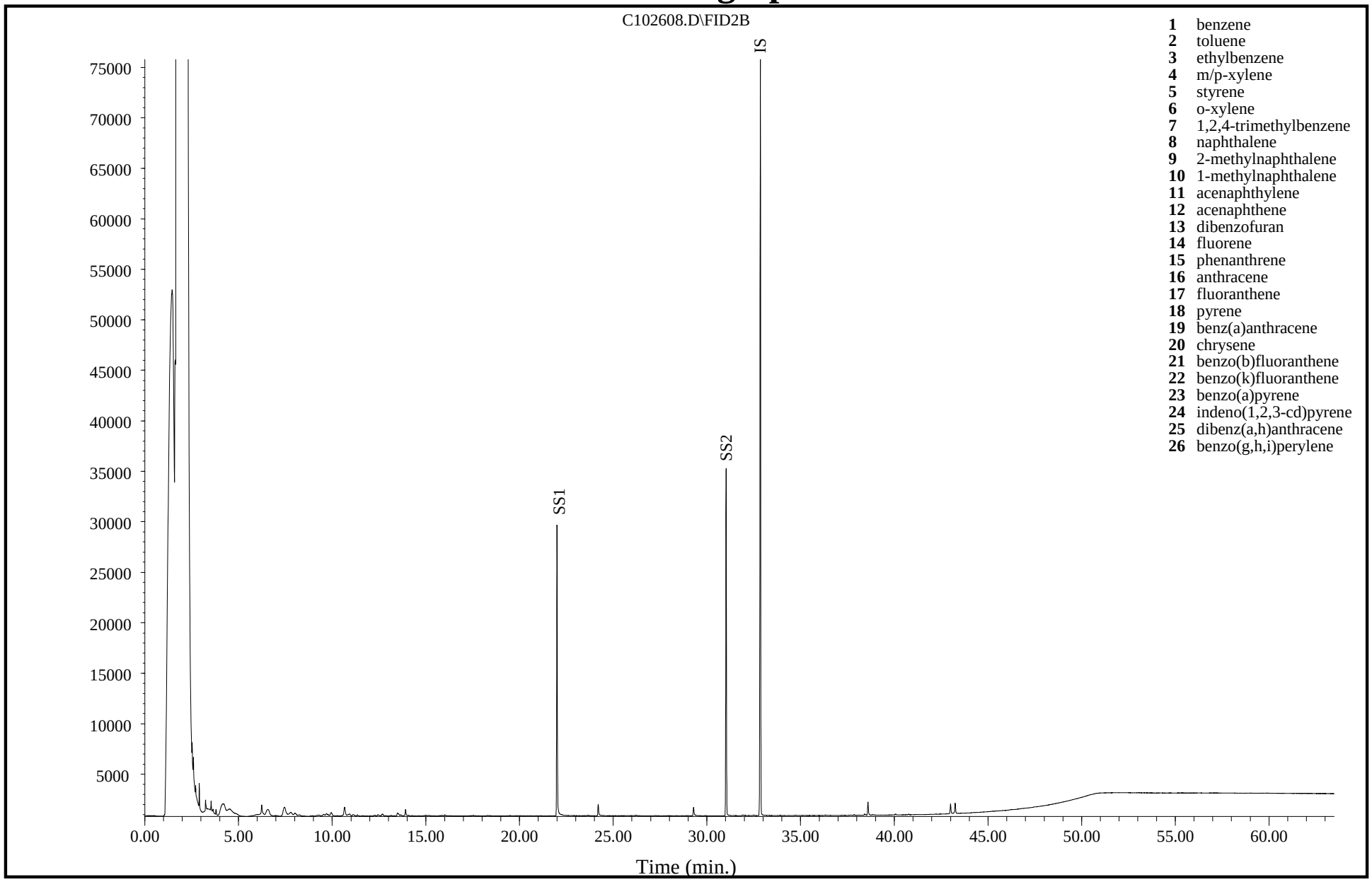
Extraction Date: 10/20/2010
Analysis Date: 11/11/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **Aqueous Blank**
Laboratory ID: QC101020-AB
Method: EPA 8100M

META

GC/FID Fingerprint



Extraction Date: 10/22/2010
Analysis Date: 10/26/2010

IS – 5a-androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: **Soil Blank**
Laboratory ID: QC101022-SB
Method: EPA 8100M

Appendix C

MAH/PAH Concentrations

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01		
File ID:	E090308.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.11
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.291	B	0.009	0.004	
Toluene	0.654	B	0.009	0.004	
Ethylbenzene	0.023		0.009	0.004	
m/p-Xylenes	0.666		0.009	0.004	
Styrene	0.016	B	0.009	0.004	
o-Xylene	0.044		0.009	0.004	
Isopropylbenzene		U	0.009	0.004	
n-Propylbenzene	0.020		0.009	0.004	
1,3,5-Trimethylbenzene	0.013		0.009	0.004	
1,2,4-Trimethylbenzene	0.029		0.009	0.004	
t-Butylbenzene		U	0.009	0.004	
sec-Butylbenzene		U	0.009	0.004	
p-Isopropyltoluene	0.011		0.009	0.004	
n-Butylbenzene	0.026		0.009	0.004	
C1 - Benzene	0.461	B	0.009	0.004	
C2 - Benzene	0.410		0.009	0.004	
C3 - Benzene	0.070		0.009	0.004	
C4 - Benzene	0.047		0.009	0.004	
C5 - Benzene	0.046		0.009	0.004	
trans-Decalin	0.005	J	0.009	0.004	
cis-Decalin		U	0.009	0.004	
Naphthalene	0.212		0.009	0.004	
2-Methylnaphthalene	0.166		0.009	0.004	
1-Methylnaphthalene	0.079		0.009	0.004	
C1 - Naphthalene	0.146		0.009	0.004	
C2 - Naphthalene	0.343		0.009	0.004	
C3 - Naphthalene	0.125		0.009	0.004	
C4 - Naphthalene	0.088		0.009	0.004	
Acenaphthylene	0.144		0.009	0.004	
Acenaphthene	0.074		0.009	0.004	
Dibenzofuran	0.095		0.009	0.004	
Fluorene	0.114		0.009	0.004	
C1 - Fluorene	0.080		0.009	0.004	
C2 - Fluorene	0.175	I	0.009	0.004	
C3 - Fluorene	0.360		0.009	0.004	
Phenanthrene	0.899		0.009	0.004	
Anthracene	0.300		0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01		
File ID:	E090308.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.11
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	1.68 I	0.009	0.004	
C2 - Phenanthrene/Anthracene	0.399	0.009	0.004	
C3 - Phenanthrene/Anthracene	0.210	0.009	0.004	
C4 - Phenanthrene/Anthracene	0.084	0.009	0.004	
Dibenzothiophene	0.101	0.009	0.004	
C1 - Dibenzothiophene	0.075	0.009	0.004	
C2 - Dibenzothiophene	0.161	0.009	0.004	
C3 - Dibenzothiophene	0.151	0.009	0.004	
C4 - Dibenzothiophene	0.094	0.009	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.236	0.009	0.004	
Fluoranthene	3.11	0.009	0.004	
Pyrene	2.62	0.009	0.004	
C1 - Fluoranthene/Pyrene	1.15	0.009	0.004	
C2 - Fluoranthene/Pyrene	0.729	0.009	0.004	
C3 - Fluoranthene/Pyrene	0.375	0.009	0.004	
Benz(a)anthracene	0.967	0.009	0.004	
Chrysene*	1.45	0.009	0.004	
C1 - Benz(a)anthracene/Chrysene	0.628	0.009	0.004	
C2 - Benz(a)anthracene/Chrysene	0.322	0.009	0.004	
C3 - Benz(a)anthracene/Chrysene	0.205	0.009	0.004	
C4 - Benz(a)anthracene/Chrysene	0.128	0.009	0.004	
Benzo(b)fluoranthene	1.89	0.009	0.004	
Benzo(j/k)fluoranthene	1.61	0.009	0.004	
Benzo(e)pyrene	1.43	0.009	0.004	
Benzo(a)pyrene	1.56	0.009	0.004	
Perylene	0.605	0.009	0.004	
Indeno(1,2,3-cd)pyrene	1.58	0.009	0.004	
Dibenz(a,h)anthracene	0.342	0.009	0.004	
Benzo(g,h,i)perylene	1.56	0.009	0.004	
Coronene	0.499	0.009	0.004	
Retene	0.047	0.009	0.004	
Benzo(b/c)fluorenes	0.196	0.009	0.004	
2-Methylpyrene	0.164	0.009	0.004	
4-Methylpyrene	0.147	0.009	0.004	
1-Methylpyrene	0.104	0.009	0.004	
Heptadecane	0.508 B	0.009	0.004	
Pristane	0.079 B	0.009	0.004	
Octadecane	0.124 B	0.009	0.004	
Phytane	0.107 B	0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01		
File ID:	E090308.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.11
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.009	0.004	
2,6,10-trimethyltridecane	0.030	0.009	0.004	
Norpristane	0.021	0.009	0.004	
Total PAH (16)	18.4	0.009	0.004	
Total PAH (42)	28.4	0.009	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	83	50 - 120
Phenanthrene-d10	92	50 - 120
Benzo(a)pyrene-d12	105	50 - 120
Perylene-d12	108	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-02		
File ID:	E090310.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	36.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.166	B	0.006	0.003	
Toluene	0.513	B	0.006	0.003	
Ethylbenzene	0.028		0.006	0.003	
m/p-Xylenes	0.610		0.006	0.003	
Styrene	0.032	B	0.006	0.003	
o-Xylene	0.046		0.006	0.003	
Isopropylbenzene	0.006	J	0.006	0.003	
n-Propylbenzene	0.022		0.006	0.003	
1,3,5-Trimethylbenzene	0.014		0.006	0.003	
1,2,4-Trimethylbenzene	0.036		0.006	0.003	
t-Butylbenzene		U	0.006	0.003	
sec-Butylbenzene		U	0.006	0.003	
p-Isopropyltoluene	0.013		0.006	0.003	
n-Butylbenzene	0.022		0.006	0.003	
C1 - Benzene	0.366	B	0.006	0.003	
C2 - Benzene	0.395		0.006	0.003	
C3 - Benzene	0.074		0.006	0.003	
C4 - Benzene	0.055		0.006	0.003	
C5 - Benzene	0.068		0.006	0.003	
trans-Decalin	0.011		0.006	0.003	
cis-Decalin	0.019		0.006	0.003	
Naphthalene	0.293		0.006	0.003	
2-Methylnaphthalene	0.202		0.006	0.003	
1-Methylnaphthalene	0.107		0.006	0.003	
C1 - Naphthalene	0.188		0.006	0.003	
C2 - Naphthalene	0.362		0.006	0.003	
C3 - Naphthalene	0.247		0.006	0.003	
C4 - Naphthalene	0.224		0.006	0.003	
Acenaphthylene	0.432		0.006	0.003	
Acenaphthene	0.272		0.006	0.003	
Dibenzofuran	0.158		0.006	0.003	
Fluorene	0.263		0.006	0.003	
C1 - Fluorene	0.189		0.006	0.003	
C2 - Fluorene	0.226	I	0.006	0.003	
C3 - Fluorene	0.779		0.006	0.003	
Phenanthrene	2.68		0.006	0.003	
Anthracene	0.967		0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-02		
File ID:	E090310.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	36.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	3.83 I	0.006	0.003	
C2 - Phenanthrene/Anthracene	1.17	0.006	0.003	
C3 - Phenanthrene/Anthracene	0.617	0.006	0.003	
C4 - Phenanthrene/Anthracene	0.219	0.006	0.003	
Dibenzothiophene	0.253	0.006	0.003	
C1 - Dibenzothiophene	0.316	0.006	0.003	
C2 - Dibenzothiophene	0.526	0.006	0.003	
C3 - Dibenzothiophene	0.511	0.006	0.003	
C4 - Dibenzothiophene	0.256	0.006	0.003	
Benzo(b)naphtho(2,1-d)thiophene	0.573	0.006	0.003	
Fluoranthene	6.61	0.006	0.003	
Pyrene	6.19	0.006	0.003	
C1 - Fluoranthene/Pyrene	3.05	0.006	0.003	
C2 - Fluoranthene/Pyrene	1.94	0.006	0.003	
C3 - Fluoranthene/Pyrene	0.970	0.006	0.003	
Benz(a)anthracene	2.84	0.006	0.003	
Chrysene*	3.37	0.006	0.003	
C1 - Benz(a)anthracene/Chrysene	1.78	0.006	0.003	
C2 - Benz(a)anthracene/Chrysene	0.863	0.006	0.003	
C3 - Benz(a)anthracene/Chrysene	0.362	0.006	0.003	
C4 - Benz(a)anthracene/Chrysene	0.347	0.006	0.003	
Benzo(b)fluoranthene	3.62	0.006	0.003	
Benzo(j/k)fluoranthene	3.4	0.006	0.003	
Benzo(e)pyrene	2.86	0.006	0.003	
Benzo(a)pyrene	3.74	0.006	0.003	
Perylene	1.21	0.006	0.003	
Indeno(1,2,3-cd)pyrene	3.17	0.006	0.003	
Dibenz(a,h)anthracene	0.757	0.006	0.003	
Benzo(g,h,i)perylene	2.98	0.006	0.003	
Coronene	0.813	0.006	0.003	
Retene	0.058	0.006	0.003	
Benzo(b/c)fluorenes	0.433	0.006	0.003	
2-Methylpyrene	0.445	0.006	0.003	
4-Methylpyrene	0.431	0.006	0.003	
1-Methylpyrene	0.338	0.006	0.003	
Heptadecane	0.364 B	0.006	0.003	
Pristane	0.164 B	0.006	0.003	
Octadecane	0.144 B	0.006	0.003	
Phytane	0.229 B	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-02		
File ID:	E090310.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	36.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.006	0.003	
2,6,10-trimethyltridecane	0.102	0.006	0.003	
Norpristane	0.051	0.006	0.003	
Total PAH (16)	41.6	0.006	0.003	
Total PAH (42)	65.0	0.006	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	80	50 - 120
Phenanthrene-d10	85	50 - 120
Benzo(a)pyrene-d12	100	50 - 120
Perylene-d12	103	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-03		
File ID:	E090311.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.12
Date Cleanup:	NA	Percent Solid:	42.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				
Benzene	0.173 B	0.006	0.003	
Toluene	0.510 B	0.006	0.003	
Ethylbenzene	0.036	0.006	0.003	
m/p-Xylenes	0.616	0.006	0.003	
Styrene	0.056 B	0.006	0.003	
o-Xylene	0.055	0.006	0.003	
Isopropylbenzene	0.006 J	0.006	0.003	
n-Propylbenzene	0.030	0.006	0.003	
1,3,5-Trimethylbenzene	0.018	0.006	0.003	
1,2,4-Trimethylbenzene	0.049	0.006	0.003	
t-Butylbenzene	0.009	0.006	0.003	
sec-Butylbenzene	0.004 J	0.006	0.003	
p-Isopropyltoluene	0.017	0.006	0.003	
n-Butylbenzene	0.025	0.006	0.003	
C1 - Benzene	0.366 B	0.006	0.003	
C2 - Benzene	0.411	0.006	0.003	
C3 - Benzene	0.098	0.006	0.003	
C4 - Benzene	0.099	0.006	0.003	
C5 - Benzene	0.105	0.006	0.003	
trans-Decalin	0.036	0.006	0.003	
cis-Decalin	0.003 J	0.006	0.003	
Naphthalene	0.610	0.006	0.003	
2-Methylnaphthalene	0.388	0.006	0.003	
1-Methylnaphthalene	0.202	0.006	0.003	
C1 - Naphthalene	0.354	0.006	0.003	
C2 - Naphthalene	0.650	0.006	0.003	
C3 - Naphthalene	0.615	0.006	0.003	
C4 - Naphthalene	0.564	0.006	0.003	
Acenaphthylene	0.973	0.006	0.003	
Acenaphthene	0.724	0.006	0.003	
Dibenzofuran	0.369	0.006	0.003	
Fluorene	0.959	0.006	0.003	
C1 - Fluorene	0.748	0.006	0.003	
C2 - Fluorene	0.832 I	0.006	0.003	
C3 - Fluorene	1.81	0.006	0.003	
Phenanthrene	7.65	0.006	0.003	
Anthracene	2.84	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-03		
File ID:	E090311.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.12
Date Cleanup:	NA	Percent Solid:	42.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	8.05 I	0.006	0.003	
C2 - Phenanthrene/Anthracene	3.54	0.006	0.003	
C3 - Phenanthrene/Anthracene	1.53	0.006	0.003	
C4 - Phenanthrene/Anthracene	0.616	0.006	0.003	
Dibenzothiophene	0.926	0.006	0.003	
C1 - Dibenzothiophene	1.2	0.006	0.003	
C2 - Dibenzothiophene	1.55	0.006	0.003	
C3 - Dibenzothiophene	1.29	0.006	0.003	
C4 - Dibenzothiophene	0.603	0.006	0.003	
Benzo(b)naphtho(2,1-d)thiophene	1.74	0.006	0.003	
Fluoranthene	18.9	0.006	0.003	
Pyrene	17.7	0.006	0.003	
C1 - Fluoranthene/Pyrene	9.25	0.006	0.003	
C2 - Fluoranthene/Pyrene	4.81	0.006	0.003	
C3 - Fluoranthene/Pyrene	2.22	0.006	0.003	
Benz(a)anthracene	8.11	0.006	0.003	
Chrysene*	9.39	0.006	0.003	
C1 - Benz(a)anthracene/Chrysene	4.49	0.006	0.003	
C2 - Benz(a)anthracene/Chrysene	1.59	0.006	0.003	
C3 - Benz(a)anthracene/Chrysene	0.849	0.006	0.003	
C4 - Benz(a)anthracene/Chrysene	0.507	0.006	0.003	
Benzo(b)fluoranthene	8.43	0.006	0.003	
Benzo(j/k)fluoranthene	7.47	0.006	0.003	
Benzo(e)pyrene	6.18	0.006	0.003	
Benzo(a)pyrene	8.75	0.006	0.003	
Perylene	2.28	0.006	0.003	
Indeno(1,2,3-cd)pyrene	6.59	0.006	0.003	
Dibenz(a,h)anthracene	1.72	0.006	0.003	
Benzo(g,h,i)perylene	5.91	0.006	0.003	
Coronene	1.5	0.006	0.003	
Retene	0.117	0.006	0.003	
Benzo(b/c)fluorenes	1.53	0.006	0.003	
2-Methylpyrene	1.25	0.006	0.003	
4-Methylpyrene	1.1	0.006	0.003	
1-Methylpyrene	0.924	0.006	0.003	
Heptadecane	0.350 B	0.006	0.003	
Pristane	0.303 B	0.006	0.003	
Octadecane	0.156 B	0.006	0.003	
Phytane	0.378 B	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-03		
File ID:	E090311.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.12
Date Cleanup:	NA	Percent Solid:	42.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.006	0.003	
2,6,10-trimethyltridecane	0.201	0.006	0.003	
Norpristane	0.115	0.006	0.003	
Total PAH (16)	107	0.006	0.003	
Total PAH (42)	164	0.006	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	80	50 - 120
Phenanthrene-d10	82	50 - 120
Benzo(a)pyrene-d12	101	50 - 120
Perylene-d12	104	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-04		
File ID:	E090312.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	36.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.054	B	0.007	0.003	
Toluene	0.175	B	0.007	0.003	
Ethylbenzene		U	0.007	0.003	
m/p-Xylenes	0.138		0.007	0.003	
Styrene	0.011	B	0.007	0.003	
o-Xylene	0.007		0.007	0.003	
Isopropylbenzene		U	0.007	0.003	
n-Propylbenzene		U	0.007	0.003	
1,3,5-Trimethylbenzene	0.025		0.007	0.003	
1,2,4-Trimethylbenzene		U	0.007	0.003	
t-Butylbenzene		U	0.007	0.003	
sec-Butylbenzene		U	0.007	0.003	
p-Isopropyltoluene	0.006	J	0.007	0.003	
n-Butylbenzene	0.004	J	0.007	0.003	
C1 - Benzene	0.117	B	0.007	0.003	
C2 - Benzene	0.090		0.007	0.003	
C3 - Benzene	0.023		0.007	0.003	
C4 - Benzene	0.017		0.007	0.003	
C5 - Benzene	0.012		0.007	0.003	
trans-Decalin	0.003	J	0.007	0.003	
cis-Decalin		U	0.007	0.003	
Naphthalene	0.009		0.007	0.003	
2-Methylnaphthalene	0.007		0.007	0.003	
1-Methylnaphthalene	0.004	J	0.007	0.003	
C1 - Naphthalene	0.006	J	0.007	0.003	
C2 - Naphthalene	0.051		0.007	0.003	
C3 - Naphthalene	0.014		0.007	0.003	
C4 - Naphthalene	0.026		0.007	0.003	
Acenaphthylene	0.043		0.007	0.003	
Acenaphthene	0.008		0.007	0.003	
Dibenzofuran	0.003	J	0.007	0.003	
Fluorene	0.007		0.007	0.003	
C1 - Fluorene	0.010		0.007	0.003	
C2 - Fluorene	0.007	I	0.007	0.003	
C3 - Fluorene	0.016		0.007	0.003	
Phenanthrene	0.019		0.007	0.003	
Anthracene	0.013		0.007	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-04		
File ID:	E090312.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	36.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.017	I	0.007	0.003	
C2 - Phenanthrene/Anthracene	0.030		0.007	0.003	
C3 - Phenanthrene/Anthracene	0.011		0.007	0.003	
C4 - Phenanthrene/Anthracene	0.012		0.007	0.003	
Dibenzothiophene		U	0.007	0.003	
C1 - Dibenzothiophene	0.007	J	0.007	0.003	
C2 - Dibenzothiophene	0.011		0.007	0.003	
C3 - Dibenzothiophene	0.014		0.007	0.003	
C4 - Dibenzothiophene	0.012		0.007	0.003	
Benzo(b)naphtho(2,1-d)thiophene	0.006	J	0.007	0.003	
Fluoranthene	0.060		0.007	0.003	
Pyrene	0.058		0.007	0.003	
C1 - Fluoranthene/Pyrene	0.048		0.007	0.003	
C2 - Fluoranthene/Pyrene	0.033		0.007	0.003	
C3 - Fluoranthene/Pyrene	0.029		0.007	0.003	
Benz(a)anthracene	0.028		0.007	0.003	
Chrysene*	0.038		0.007	0.003	
C1 - Benz(a)anthracene/Chrysene	0.018		0.007	0.003	
C2 - Benz(a)anthracene/Chrysene	0.009		0.007	0.003	
C3 - Benz(a)anthracene/Chrysene	0.048		0.007	0.003	
C4 - Benz(a)anthracene/Chrysene		U	0.007	0.003	
Benzo(b)fluoranthene	0.040		0.007	0.003	
Benzo(j/k)fluoranthene	0.037		0.007	0.003	
Benzo(e)pyrene	0.033		0.007	0.003	
Benzo(a)pyrene	0.039		0.007	0.003	
Perylene	0.072		0.007	0.003	
Indeno(1,2,3-cd)pyrene	0.041		0.007	0.003	
Dibenz(a,h)anthracene	0.010		0.007	0.003	
Benzo(g,h,i)perylene	0.038		0.007	0.003	
Coronene	0.009		0.007	0.003	
Retene	0.018		0.007	0.003	
Benzo(b/c)fluorenes	0.007		0.007	0.003	
2-Methylpyrene	0.005	J	0.007	0.003	
4-Methylpyrene	0.005	J	0.007	0.003	
1-Methylpyrene	0.004	J	0.007	0.003	
Heptadecane	0.034	B	0.007	0.003	
Pristane	0.015	B	0.007	0.003	
Octadecane	0.064	B	0.007	0.003	
Phytane	0.009	B	0.007	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-04		
File ID:	E090312.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	36.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.007	0.003	
2,6,10-trimethyltridecane	0.010	0.007	0.003	
Norpristane	U	0.007	0.003	
Total PAH (16)	0.488	0.007	0.003	
Total PAH (42)	1.02	0.007	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	79	50 - 120
Phenanthrene-d10	85	50 - 120
Benzo(a)pyrene-d12	95	50 - 120
Perylene-d12	95	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-05		
File ID:	E090313.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.01
Date Cleanup:	NA	Percent Solid:	41.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.023	B	0.006	0.003	
Toluene	0.118	B	0.006	0.003	
Ethylbenzene		U	0.006	0.003	
m/p-Xylenes	0.078		0.006	0.003	
Styrene	0.014	B	0.006	0.003	
o-Xylene	0.003	J	0.006	0.003	
Isopropylbenzene		U	0.006	0.003	
n-Propylbenzene		U	0.006	0.003	
1,3,5-Trimethylbenzene		U	0.006	0.003	
1,2,4-Trimethylbenzene		U	0.006	0.003	
t-Butylbenzene		U	0.006	0.003	
sec-Butylbenzene		U	0.006	0.003	
p-Isopropyltoluene	0.005	J	0.006	0.003	
n-Butylbenzene		U	0.006	0.003	
C1 - Benzene	0.087	B	0.006	0.003	
C2 - Benzene	0.055		0.006	0.003	
C3 - Benzene	0.012		0.006	0.003	
C4 - Benzene	0.010		0.006	0.003	
C5 - Benzene	0.011		0.006	0.003	
trans-Decalin		U	0.006	0.003	
cis-Decalin		U	0.006	0.003	
Naphthalene		U	0.006	0.003	
2-Methylnaphthalene		U	0.006	0.003	
1-Methylnaphthalene		U	0.006	0.003	
C1 - Naphthalene		U	0.006	0.003	
C2 - Naphthalene	0.023		0.006	0.003	
C3 - Naphthalene	0.009		0.006	0.003	
C4 - Naphthalene	0.019		0.006	0.003	
Acenaphthylene	0.013		0.006	0.003	
Acenaphthene		U	0.006	0.003	
Dibenzofuran		U	0.006	0.003	
Fluorene		U	0.006	0.003	
C1 - Fluorene	0.005	J	0.006	0.003	
C2 - Fluorene	0.007		0.006	0.003	
C3 - Fluorene	0.018		0.006	0.003	
Phenanthrene	0.003	J	0.006	0.003	
Anthracene		U	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-05		
File ID:	E090313.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.01
Date Cleanup:	NA	Percent Solid:	41.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.005	J	0.006	0.003	
C2 - Phenanthrene/Anthracene	0.006	J	0.006	0.003	
C3 - Phenanthrene/Anthracene	0.004	J	0.006	0.003	
C4 - Phenanthrene/Anthracene	0.008		0.006	0.003	
Dibenzothiophene		U	0.006	0.003	
C1 - Dibenzothiophene	0.004	J	0.006	0.003	
C2 - Dibenzothiophene	0.006	J	0.006	0.003	
C3 - Dibenzothiophene	0.007		0.006	0.003	
C4 - Dibenzothiophene	0.007		0.006	0.003	
Benzo(b)naphtho(2,1-d)thiophene		U	0.006	0.003	
Fluoranthene	0.005	J	0.006	0.003	
Pyrene	0.005	J	0.006	0.003	
C1 - Fluoranthene/Pyrene	0.009		0.006	0.003	
C2 - Fluoranthene/Pyrene	0.011		0.006	0.003	
C3 - Fluoranthene/Pyrene	0.007		0.006	0.003	
Benz(a)anthracene		U	0.006	0.003	
Chrysene*	0.003	J	0.006	0.003	
C1 - Benz(a)anthracene/Chrysene	0.004	J	0.006	0.003	
C2 - Benz(a)anthracene/Chrysene	0.009		0.006	0.003	
C3 - Benz(a)anthracene/Chrysene	0.026		0.006	0.003	
C4 - Benz(a)anthracene/Chrysene	0.062		0.006	0.003	
Benzo(b)fluoranthene	0.003	J	0.006	0.003	
Benzo(j/k)fluoranthene		U	0.006	0.003	
Benzo(e)pyrene		U	0.006	0.003	
Benzo(a)pyrene		U	0.006	0.003	
Perylene	0.090		0.006	0.003	
Indeno(1,2,3-cd)pyrene		U	0.006	0.003	
Dibenz(a,h)anthracene		U	0.006	0.003	
Benzo(g,h,i)perylene		U	0.006	0.003	
Coronene		U	0.006	0.003	
Retene	0.008		0.006	0.003	
Benzo(b/c)fluorenes		U	0.006	0.003	
2-Methylpyrene		U	0.006	0.003	
4-Methylpyrene		U	0.006	0.003	
1-Methylpyrene		U	0.006	0.003	
Heptadecane	0.020	B	0.006	0.003	
Pristane	0.009	B	0.006	0.003	
Octadecane	0.060	B	0.006	0.003	
Phytane	0.008	B	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-05		
File ID:	E090313.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.01
Date Cleanup:	NA	Percent Solid:	41.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.006	0.003	
2,6,10-trimethyltridecane	U	0.006	0.003	
Norpristane	U	0.006	0.003	
Total PAH (16)	0.032	0.006	0.003	
Total PAH (42)	0.378	0.006	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	75	50 - 120
Phenanthrene-d10	82	50 - 120
Benzo(a)pyrene-d12	94	50 - 120
Perylene-d12	95	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-06		
File ID:	E090314.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	45.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.024	B	0.005	0.003	
Toluene	0.115	B	0.005	0.003	
Ethylbenzene		U	0.005	0.003	
m/p-Xylenes	0.076		0.005	0.003	
Styrene	0.015	B	0.005	0.003	
o-Xylene	0.004	J	0.005	0.003	
Isopropylbenzene		U	0.005	0.003	
n-Propylbenzene		U	0.005	0.003	
1,3,5-Trimethylbenzene	0.015		0.005	0.003	
1,2,4-Trimethylbenzene		U	0.005	0.003	
t-Butylbenzene		U	0.005	0.003	
sec-Butylbenzene		U	0.005	0.003	
p-Isopropyltoluene	0.006		0.005	0.003	
n-Butylbenzene		U	0.005	0.003	
C1 - Benzene	0.082	B	0.005	0.003	
C2 - Benzene	0.054		0.005	0.003	
C3 - Benzene	0.009		0.005	0.003	
C4 - Benzene	0.023		0.005	0.003	
C5 - Benzene	0.012		0.005	0.003	
trans-Decalin		U	0.005	0.003	
cis-Decalin		U	0.005	0.003	
Naphthalene		U	0.005	0.003	
2-Methylnaphthalene		U	0.005	0.003	
1-Methylnaphthalene		U	0.005	0.003	
C1 - Naphthalene		U	0.005	0.003	
C2 - Naphthalene	0.041		0.005	0.003	
C3 - Naphthalene	0.010		0.005	0.003	
C4 - Naphthalene	0.053		0.005	0.003	
Acenaphthylene	0.008		0.005	0.003	
Acenaphthene		U	0.005	0.003	
Dibenzofuran		U	0.005	0.003	
Fluorene	0.003	J	0.005	0.003	
C1 - Fluorene	0.005		0.005	0.003	
C2 - Fluorene		U	0.005	0.003	
C3 - Fluorene	0.013		0.005	0.003	
Phenanthrene		U	0.005	0.003	
Anthracene		U	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-06		
File ID:	E090314.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	45.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.005		0.005	0.003	
C2 - Phenanthrene/Anthracene	0.006		0.005	0.003	
C3 - Phenanthrene/Anthracene	0.006		0.005	0.003	
C4 - Phenanthrene/Anthracene	0.007		0.005	0.003	
Dibenzothiophene		U	0.005	0.003	
C1 - Dibenzothiophene	0.005		0.005	0.003	
C2 - Dibenzothiophene	0.003	J	0.005	0.003	
C3 - Dibenzothiophene	0.005	J	0.005	0.003	
C4 - Dibenzothiophene	0.006		0.005	0.003	
Benzo(b)naphtho(2,1-d)thiophene		U	0.005	0.003	
Fluoranthene		U	0.005	0.003	
Pyrene		U	0.005	0.003	
C1 - Fluoranthene/Pyrene	0.007		0.005	0.003	
C2 - Fluoranthene/Pyrene	0.009		0.005	0.003	
C3 - Fluoranthene/Pyrene	0.006		0.005	0.003	
Benz(a)anthracene		U	0.005	0.003	
Chrysene*		U	0.005	0.003	
C1 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C2 - Benz(a)anthracene/Chrysene	0.007		0.005	0.003	
C3 - Benz(a)anthracene/Chrysene	0.021		0.005	0.003	
C4 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
Benzo(b)fluoranthene		U	0.005	0.003	
Benzo(j/k)fluoranthene		U	0.005	0.003	
Benzo(e)pyrene		U	0.005	0.003	
Benzo(a)pyrene		U	0.005	0.003	
Perylene	0.018		0.005	0.003	
Indeno(1,2,3-cd)pyrene		U	0.005	0.003	
Dibenz(a,h)anthracene		U	0.005	0.003	
Benzo(g,h,i)perylene		U	0.005	0.003	
Coronene		U	0.005	0.003	
Retene	0.009		0.005	0.003	
Benzo(b/c)fluorenes		U	0.005	0.003	
2-Methylpyrene		U	0.005	0.003	
4-Methylpyrene		U	0.005	0.003	
1-Methylpyrene		U	0.005	0.003	
Heptadecane	0.018	B	0.005	0.003	
Pristane		BU	0.005	0.003	
Octadecane	0.010	B	0.005	0.003	
Phytane	0.004	JB	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-94-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-06		
File ID:	E090314.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	45.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.005	0.003	
2,6,10-trimethyltridecane	0.006	0.005	0.003	
Norpristane	0.022	0.005	0.003	
Total PAH (16)	0.011	0.005	0.003	
Total PAH (42)	0.244	0.005	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	85	50 - 120
Phenanthrene-d10	87	50 - 120
Benzo(a)pyrene-d12	99	50 - 120
Perylene-d12	101	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-07		
File ID:	E090315.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.10
Date Cleanup:	NA	Percent Solid:	23.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.204	B	0.010	0.005	
Toluene	0.591	B	0.010	0.005	
Ethylbenzene	0.025		0.010	0.005	
m/p-Xylenes	0.594		0.010	0.005	
Styrene	0.015	B	0.010	0.005	
o-Xylene	0.039		0.010	0.005	
Isopropylbenzene		U	0.010	0.005	
n-Propylbenzene	0.020		0.010	0.005	
1,3,5-Trimethylbenzene	0.011		0.010	0.005	
1,2,4-Trimethylbenzene	0.029		0.010	0.005	
t-Butylbenzene		U	0.010	0.005	
sec-Butylbenzene		U	0.010	0.005	
p-Isopropyltoluene	0.013		0.010	0.005	
n-Butylbenzene	0.028		0.010	0.005	
C1 - Benzene	0.417	B	0.010	0.005	
C2 - Benzene	0.382		0.010	0.005	
C3 - Benzene	0.084		0.010	0.005	
C4 - Benzene	0.061		0.010	0.005	
C5 - Benzene	0.060		0.010	0.005	
trans-Decalin	0.006	J	0.010	0.005	
cis-Decalin	0.043		0.010	0.005	
Naphthalene	0.222		0.010	0.005	
2-Methylnaphthalene	0.178		0.010	0.005	
1-Methylnaphthalene	0.078		0.010	0.005	
C1 - Naphthalene	0.154		0.010	0.005	
C2 - Naphthalene	0.335		0.010	0.005	
C3 - Naphthalene	0.108		0.010	0.005	
C4 - Naphthalene	0.076		0.010	0.005	
Acenaphthylene	0.117		0.010	0.005	
Acenaphthene	0.038		0.010	0.005	
Dibenzofuran	0.070		0.010	0.005	
Fluorene	0.088		0.010	0.005	
C1 - Fluorene	0.066		0.010	0.005	
C2 - Fluorene	0.024	I	0.010	0.005	
C3 - Fluorene	0.231		0.010	0.005	
Phenanthrene	0.421		0.010	0.005	
Anthracene	0.219		0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-07		
File ID:	E090315.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.10
Date Cleanup:	NA	Percent Solid:	23.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	IU	0.010	0.005	
C2 - Phenanthrene/Anthracene	0.327	0.010	0.005	
C3 - Phenanthrene/Anthracene	0.138	0.010	0.005	
C4 - Phenanthrene/Anthracene	0.070	0.010	0.005	
Dibenzothiophene	0.062	0.010	0.005	
C1 - Dibenzothiophene	0.036	0.010	0.005	
C2 - Dibenzothiophene	0.121	0.010	0.005	
C3 - Dibenzothiophene	0.079	0.010	0.005	
C4 - Dibenzothiophene	0.058	0.010	0.005	
Benzo(b)naphtho(2,1-d)thiophene	0.081	0.010	0.005	
Fluoranthene	1.04	0.010	0.005	
Pyrene	0.974	0.010	0.005	
C1 - Fluoranthene/Pyrene	0.521	0.010	0.005	
C2 - Fluoranthene/Pyrene	0.335	0.010	0.005	
C3 - Fluoranthene/Pyrene	0.190	0.010	0.005	
Benz(a)anthracene	0.362	0.010	0.005	
Chrysene*	0.493	0.010	0.005	
C1 - Benz(a)anthracene/Chrysene	0.309	0.010	0.005	
C2 - Benz(a)anthracene/Chrysene	0.144	0.010	0.005	
C3 - Benz(a)anthracene/Chrysene	0.097	0.010	0.005	
C4 - Benz(a)anthracene/Chrysene	0.151	0.010	0.005	
Benzo(b)fluoranthene	0.639	0.010	0.005	
Benzo(j/k)fluoranthene	0.563	0.010	0.005	
Benzo(e)pyrene	0.527	0.010	0.005	
Benzo(a)pyrene	0.540	0.010	0.005	
Perylene	0.379	0.010	0.005	
Indeno(1,2,3-cd)pyrene	0.581	0.010	0.005	
Dibenz(a,h)anthracene	0.125	0.010	0.005	
Benzo(g,h,i)perylene	0.576	0.010	0.005	
Coronene	0.190	0.010	0.005	
Retene	0.036	0.010	0.005	
Benzo(b/c)fluorenes	0.079	0.010	0.005	
2-Methylpyrene	0.075	0.010	0.005	
4-Methylpyrene	0.072	0.010	0.005	
1-Methylpyrene	0.050	0.010	0.005	
Heptadecane	0.558 B	0.010	0.005	
Pristane	0.047 B	0.010	0.005	
Octadecane	0.096 B	0.010	0.005	
Phytane	0.123 B	0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-07		
File ID:	E090315.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.10
Date Cleanup:	NA	Percent Solid:	23.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.010	0.005	
2,6,10-trimethyltridecane	0.031	0.010	0.005	
Norpristane	0.015	0.010	0.005	
Total PAH (16)	7.0	0.010	0.005	
Total PAH (42)	11.6	0.010	0.005	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	62	50 - 120
Phenanthrene-d10	78	50 - 120
Benzo(a)pyrene-d12	81	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-08		
File ID:	E090318.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	27.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.323	B	0.009	0.004	
Toluene	0.700	B	0.009	0.004	
Ethylbenzene	0.058		0.009	0.004	
m/p-Xylenes	0.721		0.009	0.004	
Styrene	0.022	B	0.009	0.004	
o-Xylene	0.062		0.009	0.004	
Isopropylbenzene	0.004	J	0.009	0.004	
n-Propylbenzene	0.025		0.009	0.004	
1,3,5-Trimethylbenzene	0.020		0.009	0.004	
1,2,4-Trimethylbenzene	0.046		0.009	0.004	
t-Butylbenzene		U	0.009	0.004	
sec-Butylbenzene		U	0.009	0.004	
p-Isopropyltoluene	0.020		0.009	0.004	
n-Butylbenzene	0.031		0.009	0.004	
C1 - Benzene	0.494	B	0.009	0.004	
C2 - Benzene	0.482		0.009	0.004	
C3 - Benzene	0.113		0.009	0.004	
C4 - Benzene	0.070		0.009	0.004	
C5 - Benzene	0.080		0.009	0.004	
trans-Decalin	0.018		0.009	0.004	
cis-Decalin		U	0.009	0.004	
Naphthalene	0.890		0.009	0.004	
2-Methylnaphthalene	0.519		0.009	0.004	
1-Methylnaphthalene	0.243		0.009	0.004	
C1 - Naphthalene	0.462		0.009	0.004	
C2 - Naphthalene	0.529		0.009	0.004	
C3 - Naphthalene	0.218		0.009	0.004	
C4 - Naphthalene	0.135		0.009	0.004	
Acenaphthylene	0.212		0.009	0.004	
Acenaphthene	0.444		0.009	0.004	
Dibenzofuran	0.365		0.009	0.004	
Fluorene	0.584		0.009	0.004	
C1 - Fluorene	0.177		0.009	0.004	
C2 - Fluorene	0.222	I	0.009	0.004	
C3 - Fluorene	0.408		0.009	0.004	
Phenanthrene	2.7		0.009	0.004	
Anthracene	1.04		0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-08		
File ID:	E090318.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	27.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	2.14 I	0.009	0.004	
C2 - Phenanthrene/Anthracene	0.521	0.009	0.004	
C3 - Phenanthrene/Anthracene	0.289	0.009	0.004	
C4 - Phenanthrene/Anthracene	0.097	0.009	0.004	
Dibenzothiophene	0.242	0.009	0.004	
C1 - Dibenzothiophene	0.142	0.009	0.004	
C2 - Dibenzothiophene	0.245	0.009	0.004	
C3 - Dibenzothiophene	0.201	0.009	0.004	
C4 - Dibenzothiophene	0.120	0.009	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.259	0.009	0.004	
Fluoranthene	3.5	0.009	0.004	
Pyrene	2.89	0.009	0.004	
C1 - Fluoranthene/Pyrene	1.47	0.009	0.004	
C2 - Fluoranthene/Pyrene	0.717	0.009	0.004	
C3 - Fluoranthene/Pyrene	0.375	0.009	0.004	
Benz(a)anthracene	1.29	0.009	0.004	
Chrysene*	1.48	0.009	0.004	
C1 - Benz(a)anthracene/Chrysene	0.721	0.009	0.004	
C2 - Benz(a)anthracene/Chrysene	0.277	0.009	0.004	
C3 - Benz(a)anthracene/Chrysene	0.162	0.009	0.004	
C4 - Benz(a)anthracene/Chrysene	0.150	0.009	0.004	
Benzo(b)fluoranthene	1.66	0.009	0.004	
Benzo(j/k)fluoranthene	1.55	0.009	0.004	
Benzo(e)pyrene	1.34	0.009	0.004	
Benzo(a)pyrene	1.66	0.009	0.004	
Perylene	0.861	0.009	0.004	
Indeno(1,2,3-cd)pyrene	1.47	0.009	0.004	
Dibenz(a,h)anthracene	0.323	0.009	0.004	
Benzo(g,h,i)perylene	1.38	0.009	0.004	
Coronene	0.397	0.009	0.004	
Retene	0.040	0.009	0.004	
Benzo(b/c)fluorenes	0.296	0.009	0.004	
2-Methylpyrene	0.182	0.009	0.004	
4-Methylpyrene	0.165	0.009	0.004	
1-Methylpyrene	0.129	0.009	0.004	
Heptadecane	0.710 B	0.009	0.004	
Pristane	0.115 B	0.009	0.004	
Octadecane	0.108 B	0.009	0.004	
Phytane	0.201 B	0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-08		
File ID:	E090318.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	27.3%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.009	0.004	
2,6,10-trimethyltridecane	0.082	0.009	0.004	
Norpristane	0.036	0.009	0.004	
Total PAH (16)	23.1	0.009	0.004	
Total PAH (42)	35.6	0.009	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	89	50 - 120
Phenanthrene-d10	97	50 - 120
Benzo(a)pyrene-d12	106	50 - 120
Perylene-d12	108	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-09		
File ID:	E090319.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	39.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.044	B	0.006	0.003	
Toluene	0.073	B	0.006	0.003	
Ethylbenzene	0.004	J	0.006	0.003	
m/p-Xylenes	0.051		0.006	0.003	
Styrene	0.009	B	0.006	0.003	
o-Xylene	0.005	J	0.006	0.003	
Isopropylbenzene		U	0.006	0.003	
n-Propylbenzene		U	0.006	0.003	
1,3,5-Trimethylbenzene		U	0.006	0.003	
1,2,4-Trimethylbenzene		U	0.006	0.003	
t-Butylbenzene		U	0.006	0.003	
sec-Butylbenzene		U	0.006	0.003	
p-Isopropyltoluene	0.003	J	0.006	0.003	
n-Butylbenzene	0.003	J	0.006	0.003	
C1 - Benzene	0.052	B	0.006	0.003	
C2 - Benzene	0.036		0.006	0.003	
C3 - Benzene	0.016		0.006	0.003	
C4 - Benzene	0.015		0.006	0.003	
C5 - Benzene	0.015		0.006	0.003	
trans-Decalin		U	0.006	0.003	
cis-Decalin		U	0.006	0.003	
Naphthalene	0.022		0.006	0.003	
2-Methylnaphthalene	0.015		0.006	0.003	
1-Methylnaphthalene	0.007		0.006	0.003	
C1 - Naphthalene	0.013		0.006	0.003	
C2 - Naphthalene	0.024		0.006	0.003	
C3 - Naphthalene	0.014		0.006	0.003	
C4 - Naphthalene	0.015		0.006	0.003	
Acenaphthylene	0.013		0.006	0.003	
Acenaphthene	0.004	J	0.006	0.003	
Dibenzofuran	0.005	J	0.006	0.003	
Fluorene	0.007		0.006	0.003	
C1 - Fluorene	0.008		0.006	0.003	
C2 - Fluorene	0.008		0.006	0.003	
C3 - Fluorene	0.019		0.006	0.003	
Phenanthrene	0.035		0.006	0.003	
Anthracene	0.014		0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-09		
File ID:	E090319.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	39.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.027	0.006	0.003	
C2 - Phenanthrene/Anthracene	0.027	0.006	0.003	
C3 - Phenanthrene/Anthracene	0.013	0.006	0.003	
C4 - Phenanthrene/Anthracene	0.012	0.006	0.003	
Dibenzothiophene	0.005 J	0.006	0.003	
C1 - Dibenzothiophene	0.006	0.006	0.003	
C2 - Dibenzothiophene	0.011	0.006	0.003	
C3 - Dibenzothiophene	0.014	0.006	0.003	
C4 - Dibenzothiophene	0.008	0.006	0.003	
Benzo(b)naphtho(2,1-d)thiophene	0.006 J	0.006	0.003	
Fluoranthene	0.061	0.006	0.003	
Pyrene	0.066	0.006	0.003	
C1 - Fluoranthene/Pyrene	0.041	0.006	0.003	
C2 - Fluoranthene/Pyrene	0.024	0.006	0.003	
C3 - Fluoranthene/Pyrene	0.014	0.006	0.003	
Benz(a)anthracene	0.024	0.006	0.003	
Chrysene*	0.031	0.006	0.003	
C1 - Benz(a)anthracene/Chrysene	0.019	0.006	0.003	
C2 - Benz(a)anthracene/Chrysene	0.013	0.006	0.003	
C3 - Benz(a)anthracene/Chrysene	0.027	0.006	0.003	
C4 - Benz(a)anthracene/Chrysene	0.043	0.006	0.003	
Benzo(b)fluoranthene	0.030	0.006	0.003	
Benzo(j/k)fluoranthene	0.030	0.006	0.003	
Benzo(e)pyrene	0.026	0.006	0.003	
Benzo(a)pyrene	0.031	0.006	0.003	
Perylene	0.048	0.006	0.003	
Indeno(1,2,3-cd)pyrene	0.025	0.006	0.003	
Dibenz(a,h)anthracene	0.006	0.006	0.003	
Benzo(g,h,i)perylene	0.025	0.006	0.003	
Coronene	0.006	0.006	0.003	
Retene	0.010	0.006	0.003	
Benzo(b/c)fluorenes	0.006	0.006	0.003	
2-Methylpyrene	0.005 J	0.006	0.003	
4-Methylpyrene	0.005 J	0.006	0.003	
1-Methylpyrene	0.004 J	0.006	0.003	
Heptadecane	0.029 B	0.006	0.003	
Pristane	0.023 B	0.006	0.003	
Octadecane	0.021 B	0.006	0.003	
Phytane	0.018 B	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-97-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-09		
File ID:	E090319.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	39.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.006	0.003	
2,6,10-trimethyltridecane	0.010	0.006	0.003	
Norpristane	0.008	0.006	0.003	
Total PAH (16)	0.424	0.006	0.003	
Total PAH (42)	0.908	0.006	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	79	50 - 120
Phenanthrene-d10	85	50 - 120
Benzo(a)pyrene-d12	96	50 - 120
Perylene-d12	97	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-10		
File ID:	E090320.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	42.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.207	B	0.006	0.003	
Toluene	0.483	B	0.006	0.003	
Ethylbenzene	0.019		0.006	0.003	
m/p-Xylenes	0.529		0.006	0.003	
Styrene	0.026	B	0.006	0.003	
o-Xylene	0.031		0.006	0.003	
Isopropylbenzene	0.003	J	0.006	0.003	
n-Propylbenzene	0.014		0.006	0.003	
1,3,5-Trimethylbenzene	0.009		0.006	0.003	
1,2,4-Trimethylbenzene	0.019		0.006	0.003	
t-Butylbenzene		U	0.006	0.003	
sec-Butylbenzene		U	0.006	0.003	
p-Isopropyltoluene	0.022		0.006	0.003	
n-Butylbenzene	0.018		0.006	0.003	
C1 - Benzene	0.341	B	0.006	0.003	
C2 - Benzene	0.337		0.006	0.003	
C3 - Benzene	0.061		0.006	0.003	
C4 - Benzene	0.054		0.006	0.003	
C5 - Benzene	0.044		0.006	0.003	
trans-Decalin	0.006	J	0.006	0.003	
cis-Decalin		U	0.006	0.003	
Naphthalene	0.113		0.006	0.003	
2-Methylnaphthalene	0.086		0.006	0.003	
1-Methylnaphthalene	0.059		0.006	0.003	
C1 - Naphthalene	0.088		0.006	0.003	
C2 - Naphthalene	0.194		0.006	0.003	
C3 - Naphthalene	0.108		0.006	0.003	
C4 - Naphthalene	0.111		0.006	0.003	
Acenaphthylene	0.284		0.006	0.003	
Acenaphthene	0.122		0.006	0.003	
Dibenzofuran	0.046		0.006	0.003	
Fluorene	0.098		0.006	0.003	
C1 - Fluorene	0.091		0.006	0.003	
C2 - Fluorene	0.079	I	0.006	0.003	
C3 - Fluorene	0.341		0.006	0.003	
Phenanthrene	1.16		0.006	0.003	
Anthracene	0.486		0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-10		
File ID:	E090320.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	42.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.972 I	0.006	0.003	
C2 - Phenanthrene/Anthracene	0.641	0.006	0.003	
C3 - Phenanthrene/Anthracene	0.295	0.006	0.003	
C4 - Phenanthrene/Anthracene	0.120	0.006	0.003	
Dibenzothiophene	0.089	0.006	0.003	
C1 - Dibenzothiophene	0.152	0.006	0.003	
C2 - Dibenzothiophene	0.260	0.006	0.003	
C3 - Dibenzothiophene	0.240	0.006	0.003	
C4 - Dibenzothiophene	0.116	0.006	0.003	
Benzo(b)naphtho(2,1-d)thiophene	0.275	0.006	0.003	
Fluoranthene	2.88	0.006	0.003	
Pyrene	2.98	0.006	0.003	
C1 - Fluoranthene/Pyrene	1.52	0.006	0.003	
C2 - Fluoranthene/Pyrene	1.01	0.006	0.003	
C3 - Fluoranthene/Pyrene	0.524	0.006	0.003	
Benz(a)anthracene	1.34	0.006	0.003	
Chrysene*	1.67	0.006	0.003	
C1 - Benz(a)anthracene/Chrysene	0.924	0.006	0.003	
C2 - Benz(a)anthracene/Chrysene	0.372	0.006	0.003	
C3 - Benz(a)anthracene/Chrysene	0.263	0.006	0.003	
C4 - Benz(a)anthracene/Chrysene	0.263	0.006	0.003	
Benzo(b)fluoranthene	1.72	0.006	0.003	
Benzo(j/k)fluoranthene	1.58	0.006	0.003	
Benzo(e)pyrene	1.43	0.006	0.003	
Benzo(a)pyrene	1.83	0.006	0.003	
Perylene	0.474	0.006	0.003	
Indeno(1,2,3-cd)pyrene	1.58	0.006	0.003	
Dibenz(a,h)anthracene	0.363	0.006	0.003	
Benzo(g,h,i)perylene	1.57	0.006	0.003	
Coronene	0.455	0.006	0.003	
Retene	0.036	0.006	0.003	
Benzo(b/c)fluorenes	0.187	0.006	0.003	
2-Methylpyrene	0.234	0.006	0.003	
4-Methylpyrene	0.237	0.006	0.003	
1-Methylpyrene	0.188	0.006	0.003	
Heptadecane	0.145 B	0.006	0.003	
Pristane	0.041 B	0.006	0.003	
Octadecane	0.086 B	0.006	0.003	
Phytane	0.059 B	0.006	0.003	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-10		
File ID:	E090320.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	42.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.006	0.003	
2,6,10-trimethyltridecane	0.035	0.006	0.003	
Norpristane	0.011	0.006	0.003	
Total PAH (16)	19.8	0.006	0.003	
Total PAH (42)	30.5	0.006	0.003	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	68	50 - 120
Phenanthrene-d10	77	50 - 120
Benzo(a)pyrene-d12	85	50 - 120
Perylene-d12	87	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-11		
File ID:	E090321.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	53.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.098	B	0.005	0.002	
Toluene	0.245	B	0.005	0.002	
Ethylbenzene	0.019		0.005	0.002	
m/p-Xylenes	0.476		0.005	0.002	
Styrene	0.035	B	0.005	0.002	
o-Xylene	0.029		0.005	0.002	
Isopropylbenzene	0.005		0.005	0.002	
n-Propylbenzene	0.013		0.005	0.002	
1,3,5-Trimethylbenzene	0.010		0.005	0.002	
1,2,4-Trimethylbenzene	0.023		0.005	0.002	
t-Butylbenzene		U	0.005	0.002	
sec-Butylbenzene		U	0.005	0.002	
p-Isopropyltoluene	0.012		0.005	0.002	
n-Butylbenzene	0.015		0.005	0.002	
C1 - Benzene	0.176	B	0.005	0.002	
C2 - Benzene	0.304		0.005	0.002	
C3 - Benzene	0.059		0.005	0.002	
C4 - Benzene	0.056		0.005	0.002	
C5 - Benzene	0.051		0.005	0.002	
trans-Decalin	0.007		0.005	0.002	
cis-Decalin		U	0.005	0.002	
Naphthalene	0.150		0.005	0.002	
2-Methylnaphthalene	0.109		0.005	0.002	
1-Methylnaphthalene	0.069		0.005	0.002	
C1 - Naphthalene	0.110		0.005	0.002	
C2 - Naphthalene	0.196		0.005	0.002	
C3 - Naphthalene	0.160		0.005	0.002	
C4 - Naphthalene	0.176		0.005	0.002	
Acenaphthylene	0.332		0.005	0.002	
Acenaphthene	0.408		0.005	0.002	
Dibenzofuran	0.120		0.005	0.002	
Fluorene	0.260		0.005	0.002	
C1 - Fluorene	0.155		0.005	0.002	
C2 - Fluorene	0.015	I	0.005	0.002	
C3 - Fluorene	0.469		0.005	0.002	
Phenanthrene	2.78		0.005	0.002	
Anthracene	1.03		0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-11		
File ID:	E090321.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	53.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	1.72 I	0.005	0.002	
C2 - Phenanthrene/Anthracene	0.852	0.005	0.002	
C3 - Phenanthrene/Anthracene	0.510	0.005	0.002	
C4 - Phenanthrene/Anthracene	0.238	0.005	0.002	
Dibenzothiophene	0.206	0.005	0.002	
C1 - Dibenzothiophene	0.221	0.005	0.002	
C2 - Dibenzothiophene	0.388	0.005	0.002	
C3 - Dibenzothiophene	0.447	0.005	0.002	
C4 - Dibenzothiophene	0.276	0.005	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.499	0.005	0.002	
Fluoranthene	5.96	0.005	0.002	
Pyrene	5.43	0.005	0.002	
C1 - Fluoranthene/Pyrene	2.46	0.005	0.002	
C2 - Fluoranthene/Pyrene	1.48	0.005	0.002	
C3 - Fluoranthene/Pyrene	0.786	0.005	0.002	
Benz(a)anthracene	2.82	0.005	0.002	
Chrysene*	3.13	0.005	0.002	
C1 - Benz(a)anthracene/Chrysene	1.36	0.005	0.002	
C2 - Benz(a)anthracene/Chrysene	0.569	0.005	0.002	
C3 - Benz(a)anthracene/Chrysene	0.412	0.005	0.002	
C4 - Benz(a)anthracene/Chrysene	0.309	0.005	0.002	
Benzo(b)fluoranthene	3.21	0.005	0.002	
Benzo(j/k)fluoranthene	2.96	0.005	0.002	
Benzo(e)pyrene	2.44	0.005	0.002	
Benzo(a)pyrene	3.5	0.005	0.002	
Perylene	1.08	0.005	0.002	
Indeno(1,2,3-cd)pyrene	2.8	0.005	0.002	
Dibenz(a,h)anthracene	0.692	0.005	0.002	
Benzo(g,h,i)perylene	2.56	0.005	0.002	
Coronene	0.658	0.005	0.002	
Retene	0.077	0.005	0.002	
Benzo(b/c)fluorenes	0.433	0.005	0.002	
2-Methylpyrene	0.334	0.005	0.002	
4-Methylpyrene	0.299	0.005	0.002	
1-Methylpyrene	0.242	0.005	0.002	
Heptadecane	0.102 B	0.005	0.002	
Pristane	0.075 B	0.005	0.002	
Octadecane	0.079 B	0.005	0.002	
Phytane	0.089 B	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-11		
File ID:	E090321.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	53.9%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	0.019	0.005	0.002	
2,6,10-trimethyltridecane	0.049	0.005	0.002	
Norpristane	0.030	0.005	0.002	
Total PAH (16)	38.0	0.005	0.002	
Total PAH (42)	55.2	0.005	0.002	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	73	50 - 120
Phenanthrene-d10	77	50 - 120
Benzo(a)pyrene-d12	89	50 - 120
Perylene-d12	92	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-12		
File ID:	E090322.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.04
Date Cleanup:	NA	Percent Solid:	52.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.106	B	0.005	0.002	
Toluene	0.376	B	0.005	0.002	
Ethylbenzene	0.048		0.005	0.002	
m/p-Xylenes	0.411		0.005	0.002	
Styrene	0.073	B	0.005	0.002	
o-Xylene	0.048		0.005	0.002	
Isopropylbenzene	0.009		0.005	0.002	
n-Propylbenzene	0.031		0.005	0.002	
1,3,5-Trimethylbenzene	0.018		0.005	0.002	
1,2,4-Trimethylbenzene	0.045		0.005	0.002	
t-Butylbenzene	0.008		0.005	0.002	
sec-Butylbenzene	0.003	J	0.005	0.002	
p-Isopropyltoluene	0.016		0.005	0.002	
n-Butylbenzene	0.021		0.005	0.002	
C1 - Benzene	0.270	B	0.005	0.002	
C2 - Benzene	0.300		0.005	0.002	
C3 - Benzene	0.106		0.005	0.002	
C4 - Benzene	0.085		0.005	0.002	
C5 - Benzene	0.070		0.005	0.002	
trans-Decalin	0.019		0.005	0.002	
cis-Decalin		U	0.005	0.002	
Naphthalene	0.406		0.005	0.002	
2-Methylnaphthalene	0.278		0.005	0.002	
1-Methylnaphthalene	0.186		0.005	0.002	
C1 - Naphthalene	0.285		0.005	0.002	
C2 - Naphthalene	0.409		0.005	0.002	
C3 - Naphthalene	0.373		0.005	0.002	
C4 - Naphthalene	0.336		0.005	0.002	
Acenaphthylene	0.708		0.005	0.002	
Acenaphthene	2.21		0.005	0.002	
Dibenzofuran	0.519		0.005	0.002	
Fluorene	1.21		0.005	0.002	
C1 - Fluorene	0.457		0.005	0.002	
C2 - Fluorene	0.408	I	0.005	0.002	
C3 - Fluorene	1.05		0.005	0.002	
Phenanthrene	10.2		0.005	0.002	
Anthracene	3.82		0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-12		
File ID:	E090322.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.04
Date Cleanup:	NA	Percent Solid:	52.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	3.74 I	0.005	0.002	
C2 - Phenanthrene/Anthracene	2.0	0.005	0.002	
C3 - Phenanthrene/Anthracene	1.01	0.005	0.002	
C4 - Phenanthrene/Anthracene	0.434	0.005	0.002	
Dibenzothiophene	0.757	0.005	0.002	
C1 - Dibenzothiophene	0.652	0.005	0.002	
C2 - Dibenzothiophene	0.840	0.005	0.002	
C3 - Dibenzothiophene	0.767	0.005	0.002	
C4 - Dibenzothiophene	0.422	0.005	0.002	
Benzo(b)naphtho(2,1-d)thiophene	1.35	0.005	0.002	
Fluoranthene	16.9	0.005	0.002	
Pyrene	14.8	0.005	0.002	
C1 - Fluoranthene/Pyrene	6.91	0.005	0.002	
C2 - Fluoranthene/Pyrene	3.1	0.005	0.002	
C3 - Fluoranthene/Pyrene	1.66	0.005	0.002	
Benz(a)anthracene	7.54	0.005	0.002	
Chrysene*	8.16	0.005	0.002	
C1 - Benz(a)anthracene/Chrysene	3.32	0.005	0.002	
C2 - Benz(a)anthracene/Chrysene	1.15	0.005	0.002	
C3 - Benz(a)anthracene/Chrysene	0.623	0.005	0.002	
C4 - Benz(a)anthracene/Chrysene	0.400	0.005	0.002	
Benzo(b)fluoranthene	7.43	0.005	0.002	
Benzo(j/k)fluoranthene	7.4	0.005	0.002	
Benzo(e)pyrene	5.55	0.005	0.002	
Benzo(a)pyrene	8.58	0.005	0.002	
Perylene	2.41	0.005	0.002	
Indeno(1,2,3-cd)pyrene	6.25	0.005	0.002	
Dibenz(a,h)anthracene	1.73	0.005	0.002	
Benzo(g,h,i)perylene	5.39	0.005	0.002	
Coronene	1.29	0.005	0.002	
Retene	0.094	0.005	0.002	
Benzo(b/c)fluorenes	1.44	0.005	0.002	
2-Methylpyrene	0.863	0.005	0.002	
4-Methylpyrene	0.756	0.005	0.002	
1-Methylpyrene	0.626	0.005	0.002	
Heptadecane	0.144 B	0.005	0.002	
Pristane	0.170 B	0.005	0.002	
Octadecane	0.146 B	0.005	0.002	
Phytane	0.170 B	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-87-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-12		
File ID:	E090322.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.04
Date Cleanup:	NA	Percent Solid:	52.7%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	0.044	0.005	0.002	
2,6,10-trimethyltridecane	0.107	0.005	0.002	
Norpristane	0.067	0.005	0.002	
Total PAH (16)	103	0.005	0.002	
Total PAH (42)	142	0.005	0.002	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	65	50 - 120
Phenanthrene-d10	75	50 - 120
Benzo(a)pyrene-d12	91	50 - 120
Perylene-d12	96	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-13		
File ID:	E090323.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	25.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.300	B	0.010	0.005	
Toluene	0.716	B	0.010	0.005	
Ethylbenzene	0.024		0.010	0.005	
m/p-Xylenes	0.729		0.010	0.005	
Styrene	0.028	B	0.010	0.005	
o-Xylene	0.052		0.010	0.005	
Isopropylbenzene		U	0.010	0.005	
n-Propylbenzene	0.026		0.010	0.005	
1,3,5-Trimethylbenzene	0.018		0.010	0.005	
1,2,4-Trimethylbenzene	0.029		0.010	0.005	
t-Butylbenzene		U	0.010	0.005	
sec-Butylbenzene		U	0.010	0.005	
p-Isopropyltoluene	0.019		0.010	0.005	
n-Butylbenzene	0.032		0.010	0.005	
C1 - Benzene	0.506	B	0.010	0.005	
C2 - Benzene	0.493		0.010	0.005	
C3 - Benzene	0.098		0.010	0.005	
C4 - Benzene	0.076		0.010	0.005	
C5 - Benzene	0.075		0.010	0.005	
trans-Decalin	0.012		0.010	0.005	
cis-Decalin		U	0.010	0.005	
Naphthalene	0.211		0.010	0.005	
2-Methylnaphthalene	0.184		0.010	0.005	
1-Methylnaphthalene	0.082		0.010	0.005	
C1 - Naphthalene	0.154		0.010	0.005	
C2 - Naphthalene	0.335		0.010	0.005	
C3 - Naphthalene	0.132		0.010	0.005	
C4 - Naphthalene	0.086		0.010	0.005	
Acenaphthylene	0.230		0.010	0.005	
Acenaphthene	0.058		0.010	0.005	
Dibenzofuran	0.068		0.010	0.005	
Fluorene	0.104		0.010	0.005	
C1 - Fluorene	0.084		0.010	0.005	
C2 - Fluorene	0.009	IJ	0.010	0.005	
C3 - Fluorene	0.273		0.010	0.005	
Phenanthrene	0.450		0.010	0.005	
Anthracene	0.244		0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-13		
File ID:	E090323.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	25.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	IU	0.010	0.005	
C2 - Phenanthrene/Anthracene	0.229	0.010	0.005	
C3 - Phenanthrene/Anthracene	0.129	0.010	0.005	
C4 - Phenanthrene/Anthracene	0.033	0.010	0.005	
Dibenzothiophene	0.065	0.010	0.005	
C1 - Dibenzothiophene	0.076	0.010	0.005	
C2 - Dibenzothiophene	0.128	0.010	0.005	
C3 - Dibenzothiophene	0.105	0.010	0.005	
C4 - Dibenzothiophene	0.071	0.010	0.005	
Benzo(b)naphtho(2,1-d)thiophene	0.082	0.010	0.005	
Fluoranthene	1.09	0.010	0.005	
Pyrene	0.973	0.010	0.005	
C1 - Fluoranthene/Pyrene	0.541	0.010	0.005	
C2 - Fluoranthene/Pyrene	0.356	0.010	0.005	
C3 - Fluoranthene/Pyrene	0.212	0.010	0.005	
Benz(a)anthracene	0.403	0.010	0.005	
Chrysene*	0.517	0.010	0.005	
C1 - Benz(a)anthracene/Chrysene	0.291	0.010	0.005	
C2 - Benz(a)anthracene/Chrysene	0.131	0.010	0.005	
C3 - Benz(a)anthracene/Chrysene	0.106	0.010	0.005	
C4 - Benz(a)anthracene/Chrysene	0.176	0.010	0.005	
Benzo(b)fluoranthene	0.694	0.010	0.005	
Benzo(j/k)fluoranthene	0.590	0.010	0.005	
Benzo(e)pyrene	0.540	0.010	0.005	
Benzo(a)pyrene	0.576	0.010	0.005	
Perylene	0.369	0.010	0.005	
Indeno(1,2,3-cd)pyrene	0.581	0.010	0.005	
Dibenz(a,h)anthracene	0.146	0.010	0.005	
Benzo(g,h,i)perylene	0.560	0.010	0.005	
Coronene	0.158	0.010	0.005	
Retene	0.055	0.010	0.005	
Benzo(b/c)fluorenes	0.085	0.010	0.005	
2-Methylpyrene	0.070	0.010	0.005	
4-Methylpyrene	0.066	0.010	0.005	
1-Methylpyrene	0.050	0.010	0.005	
Heptadecane	0.591 B	0.010	0.005	
Pristane	0.052 B	0.010	0.005	
Octadecane	0.118 B	0.010	0.005	
Phytane	0.068 B	0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-13		
File ID:	E090323.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.05
Date Cleanup:	NA	Percent Solid:	25.1%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.010	0.005	
2,6,10-trimethyltridecane	0.043	0.010	0.005	
Norpristane	U	0.010	0.005	
Total PAH (16)	7.43	0.010	0.005	
Total PAH (42)	12.1	0.010	0.005	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	79	50 - 120
Phenanthrene-d10	85	50 - 120
Benzo(a)pyrene-d12	92	50 - 120
Perylene-d12	93	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-14		
File ID:	E090324.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	33.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.130	B	0.007	0.004	
Toluene	0.423	B	0.007	0.004	
Ethylbenzene	0.019		0.007	0.004	
m/p-Xylenes	0.396		0.007	0.004	
Styrene	0.023	B	0.007	0.004	
o-Xylene	0.034		0.007	0.004	
Isopropylbenzene		U	0.007	0.004	
n-Propylbenzene	0.015		0.007	0.004	
1,3,5-Trimethylbenzene	0.015		0.007	0.004	
1,2,4-Trimethylbenzene	0.023		0.007	0.004	
t-Butylbenzene		U	0.007	0.004	
sec-Butylbenzene		U	0.007	0.004	
p-Isopropyltoluene	0.012		0.007	0.004	
n-Butylbenzene	0.017		0.007	0.004	
C1 - Benzene	0.300	B	0.007	0.004	
C2 - Benzene	0.258		0.007	0.004	
C3 - Benzene	0.076		0.007	0.004	
C4 - Benzene	0.063		0.007	0.004	
C5 - Benzene	0.052		0.007	0.004	
trans-Decalin		U	0.007	0.004	
cis-Decalin		U	0.007	0.004	
Naphthalene	0.211		0.007	0.004	
2-Methylnaphthalene	0.173		0.007	0.004	
1-Methylnaphthalene	0.073		0.007	0.004	
C1 - Naphthalene	0.147		0.007	0.004	
C2 - Naphthalene	0.250		0.007	0.004	
C3 - Naphthalene	0.105		0.007	0.004	
C4 - Naphthalene	0.068		0.007	0.004	
Acenaphthylene	0.183		0.007	0.004	
Acenaphthene	0.046		0.007	0.004	
Dibenzofuran	0.065		0.007	0.004	
Fluorene	0.088		0.007	0.004	
C1 - Fluorene	0.066		0.007	0.004	
C2 - Fluorene	0.107	I	0.007	0.004	
C3 - Fluorene	0.203		0.007	0.004	
Phenanthrene	0.398		0.007	0.004	
Anthracene	0.245		0.007	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-14		
File ID:	E090324.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	33.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.907 I	0.007	0.004	
C2 - Phenanthrene/Anthracene	0.288	0.007	0.004	
C3 - Phenanthrene/Anthracene	0.126	0.007	0.004	
C4 - Phenanthrene/Anthracene	0.028	0.007	0.004	
Dibenzothiophene	0.060	0.007	0.004	
C1 - Dibenzothiophene	0.070	0.007	0.004	
C2 - Dibenzothiophene	0.124	0.007	0.004	
C3 - Dibenzothiophene	0.118	0.007	0.004	
C4 - Dibenzothiophene	0.072	0.007	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.078	0.007	0.004	
Fluoranthene	0.926	0.007	0.004	
Pyrene	0.949	0.007	0.004	
C1 - Fluoranthene/Pyrene	0.541	0.007	0.004	
C2 - Fluoranthene/Pyrene	0.346	0.007	0.004	
C3 - Fluoranthene/Pyrene	0.204	0.007	0.004	
Benz(a)anthracene	0.355	0.007	0.004	
Chrysene*	0.471	0.007	0.004	
C1 - Benz(a)anthracene/Chrysene	0.304	0.007	0.004	
C2 - Benz(a)anthracene/Chrysene	0.178	0.007	0.004	
C3 - Benz(a)anthracene/Chrysene	0.107	0.007	0.004	
C4 - Benz(a)anthracene/Chrysene	0.132	0.007	0.004	
Benzo(b)fluoranthene	0.543	0.007	0.004	
Benzo(j/k)fluoranthene	0.484	0.007	0.004	
Benzo(e)pyrene	0.457	0.007	0.004	
Benzo(a)pyrene	0.501	0.007	0.004	
Perylene	0.393	0.007	0.004	
Indeno(1,2,3-cd)pyrene	0.458	0.007	0.004	
Dibenz(a,h)anthracene	0.118	0.007	0.004	
Benzo(g,h,i)perylene	0.452	0.007	0.004	
Coronene	0.131	0.007	0.004	
Retene	0.043	0.007	0.004	
Benzo(b/c)fluorenes	0.075	0.007	0.004	
2-Methylpyrene	0.079	0.007	0.004	
4-Methylpyrene	0.081	0.007	0.004	
1-Methylpyrene	0.062	0.007	0.004	
Heptadecane	0.370 B	0.007	0.004	
Pristane	0.045 B	0.007	0.004	
Octadecane	0.078 B	0.007	0.004	
Phytane	0.064 B	0.007	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-01

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-14		
File ID:	E090324.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	33.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.007	0.004	
2,6,10-trimethyltridecane	0.028	0.007	0.004	
Norpristane	U	0.007	0.004	
Total PAH (16)	6.43	0.007	0.004	
Total PAH (42)	11.9	0.007	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	70	50 - 120
Phenanthrene-d10	78	50 - 120
Benzo(a)pyrene-d12	84	50 - 120
Perylene-d12	86	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-15		
File ID:	E090325.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.17
Date Cleanup:	NA	Percent Solid:	34.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.124	B	0.007	0.004	
Toluene	0.401	B	0.007	0.004	
Ethylbenzene	0.032		0.007	0.004	
m/p-Xylenes	0.346		0.007	0.004	
Styrene	0.024	B	0.007	0.004	
o-Xylene	0.034		0.007	0.004	
Isopropylbenzene		U	0.007	0.004	
n-Propylbenzene	0.014		0.007	0.004	
1,3,5-Trimethylbenzene	0.017		0.007	0.004	
1,2,4-Trimethylbenzene	0.038		0.007	0.004	
t-Butylbenzene		U	0.007	0.004	
sec-Butylbenzene		U	0.007	0.004	
p-Isopropyltoluene	0.016		0.007	0.004	
n-Butylbenzene	0.017		0.007	0.004	
C1 - Benzene	0.295	B	0.007	0.004	
C2 - Benzene	0.248		0.007	0.004	
C3 - Benzene	0.091		0.007	0.004	
C4 - Benzene	0.055		0.007	0.004	
C5 - Benzene	0.075		0.007	0.004	
trans-Decalin	0.011		0.007	0.004	
cis-Decalin		U	0.007	0.004	
Naphthalene	0.453		0.007	0.004	
2-Methylnaphthalene	0.356		0.007	0.004	
1-Methylnaphthalene	0.151		0.007	0.004	
C1 - Naphthalene	0.317		0.007	0.004	
C2 - Naphthalene	0.342		0.007	0.004	
C3 - Naphthalene	0.205		0.007	0.004	
C4 - Naphthalene	0.147		0.007	0.004	
Acenaphthylene	0.222		0.007	0.004	
Acenaphthene	0.084		0.007	0.004	
Dibenzofuran	0.103		0.007	0.004	
Fluorene	0.164		0.007	0.004	
C1 - Fluorene	0.125		0.007	0.004	
C2 - Fluorene	0.067	I	0.007	0.004	
C3 - Fluorene	0.255		0.007	0.004	
Phenanthrene	0.811		0.007	0.004	
Anthracene	0.363		0.007	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-15		
File ID:	E090325.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.17
Date Cleanup:	NA	Percent Solid:	34.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.732 I	0.007	0.004	
C2 - Phenanthrene/Anthracene	0.428	0.007	0.004	
C3 - Phenanthrene/Anthracene	0.212	0.007	0.004	
C4 - Phenanthrene/Anthracene	0.094	0.007	0.004	
Dibenzothiophene	0.120	0.007	0.004	
C1 - Dibenzothiophene	0.168	0.007	0.004	
C2 - Dibenzothiophene	0.191	0.007	0.004	
C3 - Dibenzothiophene	0.174	0.007	0.004	
C4 - Dibenzothiophene	0.091	0.007	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.120	0.007	0.004	
Fluoranthene	1.4	0.007	0.004	
Pyrene	1.45	0.007	0.004	
C1 - Fluoranthene/Pyrene	0.817	0.007	0.004	
C2 - Fluoranthene/Pyrene	0.462	0.007	0.004	
C3 - Fluoranthene/Pyrene	0.225	0.007	0.004	
Benz(a)anthracene	0.515	0.007	0.004	
Chrysene*	0.654	0.007	0.004	
C1 - Benz(a)anthracene/Chrysene	0.409	0.007	0.004	
C2 - Benz(a)anthracene/Chrysene	0.203	0.007	0.004	
C3 - Benz(a)anthracene/Chrysene	0.103	0.007	0.004	
C4 - Benz(a)anthracene/Chrysene	0.145	0.007	0.004	
Benzo(b)fluoranthene	0.656	0.007	0.004	
Benzo(j/k)fluoranthene	0.610	0.007	0.004	
Benzo(e)pyrene	0.563	0.007	0.004	
Benzo(a)pyrene	0.676	0.007	0.004	
Perylene	0.477	0.007	0.004	
Indeno(1,2,3-cd)pyrene	0.573	0.007	0.004	
Dibenz(a,h)anthracene	0.146	0.007	0.004	
Benzo(g,h,i)perylene	0.557	0.007	0.004	
Coronene	0.142	0.007	0.004	
Retene	0.051	0.007	0.004	
Benzo(b/c)fluorenes	0.118	0.007	0.004	
2-Methylpyrene	0.115	0.007	0.004	
4-Methylpyrene	0.119	0.007	0.004	
1-Methylpyrene	0.095	0.007	0.004	
Heptadecane	0.431 B	0.007	0.004	
Pristane	0.070 B	0.007	0.004	
Octadecane	0.074 B	0.007	0.004	
Phytane	0.083 B	0.007	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-101-02

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-15		
File ID:	E090325.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.17
Date Cleanup:	NA	Percent Solid:	34.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.007	0.004	
2,6,10-trimethyltridecane	0.039	0.007	0.004	
Norpristane	0.024	0.007	0.004	
Total PAH (16)	9.33	0.007	0.004	
Total PAH (42)	16.5	0.007	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	84	50 - 120
Phenanthrene-d10	90	50 - 120
Benzo(a)pyrene-d12	99	50 - 120
Perylene-d12	101	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Middle River Downstream - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-01		
File ID:	E090326.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.03
Date Cleanup:	NA	Percent Solid:	25.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.106	B	0.010	0.005	
Toluene	0.250	B	0.010	0.005	
Ethylbenzene	0.015		0.010	0.005	
m/p-Xylenes	0.301		0.010	0.005	
Styrene	0.017	B	0.010	0.005	
o-Xylene	0.021		0.010	0.005	
Isopropylbenzene		U	0.010	0.005	
n-Propylbenzene	0.016		0.010	0.005	
1,3,5-Trimethylbenzene	0.011		0.010	0.005	
1,2,4-Trimethylbenzene	0.023		0.010	0.005	
t-Butylbenzene		U	0.010	0.005	
sec-Butylbenzene		U	0.010	0.005	
p-Isopropyltoluene	0.016		0.010	0.005	
n-Butylbenzene	0.021		0.010	0.005	
C1 - Benzene	0.182	B	0.010	0.005	
C2 - Benzene	0.200		0.010	0.005	
C3 - Benzene	0.071		0.010	0.005	
C4 - Benzene	0.075		0.010	0.005	
C5 - Benzene	0.046		0.010	0.005	
trans-Decalin	0.007	J	0.010	0.005	
cis-Decalin		U	0.010	0.005	
Naphthalene	0.187		0.010	0.005	
2-Methylnaphthalene	0.159		0.010	0.005	
1-Methylnaphthalene	0.068		0.010	0.005	
C1 - Naphthalene	0.133		0.010	0.005	
C2 - Naphthalene	0.147		0.010	0.005	
C3 - Naphthalene	0.089		0.010	0.005	
C4 - Naphthalene	0.051		0.010	0.005	
Acenaphthylene	0.085		0.010	0.005	
Acenaphthene	0.023		0.010	0.005	
Dibenzofuran	0.056		0.010	0.005	
Fluorene	0.075		0.010	0.005	
C1 - Fluorene	0.051		0.010	0.005	
C2 - Fluorene	0.055	I	0.010	0.005	
C3 - Fluorene	0.164		0.010	0.005	
Phenanthrene	0.267		0.010	0.005	
Anthracene	0.143		0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Middle River Downstream - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-01		
File ID:	E090326.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.03
Date Cleanup:	NA	Percent Solid:	25.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	IU	0.010	0.005	
C2 - Phenanthrene/Anthracene	0.163	0.010	0.005	
C3 - Phenanthrene/Anthracene	0.072	0.010	0.005	
C4 - Phenanthrene/Anthracene	0.021	0.010	0.005	
Dibenzothiophene	0.044	0.010	0.005	
C1 - Dibenzothiophene	0.030	0.010	0.005	
C2 - Dibenzothiophene	0.071	0.010	0.005	
C3 - Dibenzothiophene	0.066	0.010	0.005	
C4 - Dibenzothiophene	0.035	0.010	0.005	
Benzo(b)naphtho(2,1-d)thiophene	0.036	0.010	0.005	
Fluoranthene	0.533	0.010	0.005	
Pyrene	0.468	0.010	0.005	
C1 - Fluoranthene/Pyrene	0.260	0.010	0.005	
C2 - Fluoranthene/Pyrene	0.164	0.010	0.005	
C3 - Fluoranthene/Pyrene	0.093	0.010	0.005	
Benz(a)anthracene	0.187	0.010	0.005	
Chrysene*	0.236	0.010	0.005	
C1 - Benz(a)anthracene/Chrysene	0.134	0.010	0.005	
C2 - Benz(a)anthracene/Chrysene	0.063	0.010	0.005	
C3 - Benz(a)anthracene/Chrysene	0.060	0.010	0.005	
C4 - Benz(a)anthracene/Chrysene	0.112	0.010	0.005	
Benzo(b)fluoranthene	0.337	0.010	0.005	
Benzo(j/k)fluoranthene	0.269	0.010	0.005	
Benzo(e)pyrene	0.245	0.010	0.005	
Benzo(a)pyrene	0.224	0.010	0.005	
Perylene	0.293	0.010	0.005	
Indeno(1,2,3-cd)pyrene	0.250	0.010	0.005	
Dibenz(a,h)anthracene	0.055	0.010	0.005	
Benzo(g,h,i)perylene	0.236	0.010	0.005	
Coronene	0.080	0.010	0.005	
Retene	0.032	0.010	0.005	
Benzo(b/c)fluorenes	0.049	0.010	0.005	
2-Methylpyrene	0.033	0.010	0.005	
4-Methylpyrene	0.030	0.010	0.005	
1-Methylpyrene	0.023	0.010	0.005	
Heptadecane	0.527 B	0.010	0.005	
Pristane	0.037 B	0.010	0.005	
Octadecane	0.086 B	0.010	0.005	
Phytane	0.043 B	0.010	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Middle River Downstream - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-01		
File ID:	E090326.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.03
Date Cleanup:	NA	Percent Solid:	25.2%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.010	0.005	
2,6,10-trimethyltridecane	0.027	0.010	0.005	
Norpristane	0.012	0.010	0.005	
Total PAH (16)	3.58	0.010	0.005	
Total PAH (42)	6.25	0.010	0.005	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	57	50 - 120
Phenanthrene-d10	71	50 - 120
Benzo(a)pyrene-d12	72	50 - 120
Perylene-d12	75	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Marshy Point - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-02		
File ID:	E090327.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	27.0%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.173	B	0.009	0.004	
Toluene	0.327	B	0.009	0.004	
Ethylbenzene	0.020		0.009	0.004	
m/p-Xylenes	0.263		0.009	0.004	
Styrene	0.015	B	0.009	0.004	
o-Xylene	0.036		0.009	0.004	
Isopropylbenzene		U	0.009	0.004	
n-Propylbenzene	0.019		0.009	0.004	
1,3,5-Trimethylbenzene	0.017		0.009	0.004	
1,2,4-Trimethylbenzene	0.030		0.009	0.004	
t-Butylbenzene		U	0.009	0.004	
sec-Butylbenzene		U	0.009	0.004	
p-Isopropyltoluene	0.012		0.009	0.004	
n-Butylbenzene	0.024		0.009	0.004	
C1 - Benzene	0.222	B	0.009	0.004	
C2 - Benzene	0.188		0.009	0.004	
C3 - Benzene	0.087		0.009	0.004	
C4 - Benzene	0.070		0.009	0.004	
C5 - Benzene	0.063		0.009	0.004	
trans-Decalin	0.005	J	0.009	0.004	
cis-Decalin		U	0.009	0.004	
Naphthalene	0.216		0.009	0.004	
2-Methylnaphthalene	0.200		0.009	0.004	
1-Methylnaphthalene	0.089		0.009	0.004	
C1 - Naphthalene	0.176		0.009	0.004	
C2 - Naphthalene	0.200		0.009	0.004	
C3 - Naphthalene	0.109		0.009	0.004	
C4 - Naphthalene	0.066		0.009	0.004	
Acenaphthylene	0.044		0.009	0.004	
Acenaphthene	0.017		0.009	0.004	
Dibenzofuran	0.051		0.009	0.004	
Fluorene	0.064		0.009	0.004	
C1 - Fluorene	0.052		0.009	0.004	
C2 - Fluorene		IU	0.009	0.004	
C3 - Fluorene	0.102		0.009	0.004	
Phenanthrene	0.247		0.009	0.004	
Anthracene	0.091		0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Marshy Point - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-02		
File ID:	E090327.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	27.0%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.579 I	0.009	0.004	
C2 - Phenanthrene/Anthracene	0.135	0.009	0.004	
C3 - Phenanthrene/Anthracene	0.053	0.009	0.004	
C4 - Phenanthrene/Anthracene	0.020	0.009	0.004	
Dibenzothiophene	0.039	0.009	0.004	
C1 - Dibenzothiophene	0.045	0.009	0.004	
C2 - Dibenzothiophene	0.055	0.009	0.004	
C3 - Dibenzothiophene	0.038	0.009	0.004	
C4 - Dibenzothiophene	0.017	0.009	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.018	0.009	0.004	
Fluoranthene	0.234	0.009	0.004	
Pyrene	0.200	0.009	0.004	
C1 - Fluoranthene/Pyrene	0.131	0.009	0.004	
C2 - Fluoranthene/Pyrene	0.079	0.009	0.004	
C3 - Fluoranthene/Pyrene	0.047	0.009	0.004	
Benz(a)anthracene	0.068	0.009	0.004	
Chrysene*	0.100	0.009	0.004	
C1 - Benz(a)anthracene/Chrysene	0.052	0.009	0.004	
C2 - Benz(a)anthracene/Chrysene	0.034	0.009	0.004	
C3 - Benz(a)anthracene/Chrysene	0.036	0.009	0.004	
C4 - Benz(a)anthracene/Chrysene	0.039	0.009	0.004	
Benzo(b)fluoranthene	0.088	0.009	0.004	
Benzo(j/k)fluoranthene	0.073	0.009	0.004	
Benzo(e)pyrene	0.062	0.009	0.004	
Benzo(a)pyrene	0.063	0.009	0.004	
Perylene	0.400	0.009	0.004	
Indeno(1,2,3-cd)pyrene	0.062	0.009	0.004	
Dibenz(a,h)anthracene	0.016	0.009	0.004	
Benzo(g,h,i)perylene	0.060	0.009	0.004	
Coronene	0.019	0.009	0.004	
Retene	0.029	0.009	0.004	
Benzo(b/c)fluorenes	0.022	0.009	0.004	
2-Methylpyrene	0.015	0.009	0.004	
4-Methylpyrene	0.015	0.009	0.004	
1-Methylpyrene	0.012	0.009	0.004	
Heptadecane	0.457 B	0.009	0.004	
Pristane	0.045 B	0.009	0.004	
Octadecane	0.085 B	0.009	0.004	
Phytane	0.022 B	0.009	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Marshy Point - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-02		
File ID:	E090327.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	27.0%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.009	0.004	
2,6,10-trimethyltridecane	0.034	0.009	0.004	
Norpristane	0.014	0.009	0.004	
Total PAH (16)	1.64	0.009	0.004	
Total PAH (42)	4.26	0.009	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	62	50 - 120
Phenanthrene-d10	79	50 - 120
Benzo(a)pyrene-d12	79	50 - 120
Perylene-d12	82	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Bowley's Quarters - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-03		
File ID:	E090330.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	28.8%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.072	B	0.008	0.004	
Toluene	0.238	B	0.008	0.004	
Ethylbenzene	0.013		0.008	0.004	
m/p-Xylenes	0.139		0.008	0.004	
Styrene	0.017	B	0.008	0.004	
o-Xylene	0.019		0.008	0.004	
Isopropylbenzene		U	0.008	0.004	
n-Propylbenzene	0.013		0.008	0.004	
1,3,5-Trimethylbenzene	0.010		0.008	0.004	
1,2,4-Trimethylbenzene	0.020		0.008	0.004	
t-Butylbenzene		U	0.008	0.004	
sec-Butylbenzene		U	0.008	0.004	
p-Isopropyltoluene	0.013		0.008	0.004	
n-Butylbenzene	0.011		0.008	0.004	
C1 - Benzene	0.170	B	0.008	0.004	
C2 - Benzene	0.099		0.008	0.004	
C3 - Benzene	0.049		0.008	0.004	
C4 - Benzene	0.049		0.008	0.004	
C5 - Benzene	0.044		0.008	0.004	
trans-Decalin		U	0.008	0.004	
cis-Decalin		U	0.008	0.004	
Naphthalene	0.175		0.008	0.004	
2-Methylnaphthalene	0.127		0.008	0.004	
1-Methylnaphthalene	0.057		0.008	0.004	
C1 - Naphthalene	0.119		0.008	0.004	
C2 - Naphthalene	0.117		0.008	0.004	
C3 - Naphthalene	0.053		0.008	0.004	
C4 - Naphthalene	0.037		0.008	0.004	
Acenaphthylene	0.099		0.008	0.004	
Acenaphthene	0.016		0.008	0.004	
Dibenzofuran	0.034		0.008	0.004	
Fluorene	0.053		0.008	0.004	
C1 - Fluorene	0.031		0.008	0.004	
C2 - Fluorene	0.035	I	0.008	0.004	
C3 - Fluorene	0.050		0.008	0.004	
Phenanthrene	0.170		0.008	0.004	
Anthracene	0.125		0.008	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Bowley's Quarters - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-03		
File ID:	E090330.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	28.8%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.114 I	0.008	0.004	
C2 - Phenanthrene/Anthracene	0.064	0.008	0.004	
C3 - Phenanthrene/Anthracene	0.033	0.008	0.004	
C4 - Phenanthrene/Anthracene	0.016	0.008	0.004	
Dibenzothiophene	0.027	0.008	0.004	
C1 - Dibenzothiophene	0.028	0.008	0.004	
C2 - Dibenzothiophene	0.030	0.008	0.004	
C3 - Dibenzothiophene	0.028	0.008	0.004	
C4 - Dibenzothiophene	0.011	0.008	0.004	
Benzo(b)naphtho(2,1-d)thiophene	0.024	0.008	0.004	
Fluoranthene	0.240	0.008	0.004	
Pyrene	0.217	0.008	0.004	
C1 - Fluoranthene/Pyrene	0.135	0.008	0.004	
C2 - Fluoranthene/Pyrene	0.081	0.008	0.004	
C3 - Fluoranthene/Pyrene	0.039	0.008	0.004	
Benz(a)anthracene	0.111	0.008	0.004	
Chrysene*	0.191	0.008	0.004	
C1 - Benz(a)anthracene/Chrysene	0.076	0.008	0.004	
C2 - Benz(a)anthracene/Chrysene	0.037	0.008	0.004	
C3 - Benz(a)anthracene/Chrysene	0.016	0.008	0.004	
C4 - Benz(a)anthracene/Chrysene	0.006 J	0.008	0.004	
Benzo(b)fluoranthene	0.232	0.008	0.004	
Benzo(j/k)fluoranthene	0.204	0.008	0.004	
Benzo(e)pyrene	0.167	0.008	0.004	
Benzo(a)pyrene	0.205	0.008	0.004	
Perylene	0.144	0.008	0.004	
Indeno(1,2,3-cd)pyrene	0.185	0.008	0.004	
Dibenz(a,h)anthracene	0.048	0.008	0.004	
Benzo(g,h,i)perylene	0.154	0.008	0.004	
Coronene	0.004 J	0.008	0.004	
Retene	0.029	0.008	0.004	
Benzo(b/c)fluorenes	0.025	0.008	0.004	
2-Methylpyrene	0.016	0.008	0.004	
4-Methylpyrene	0.014	0.008	0.004	
1-Methylpyrene	0.010	0.008	0.004	
Heptadecane	0.218 B	0.008	0.004	
Pristane	0.029 B	0.008	0.004	
Octadecane	0.039 B	0.008	0.004	
Phytane	0.021 B	0.008	0.004	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Bowley's Quarters - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-03		
File ID:	E090330.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.14
Date Cleanup:	NA	Percent Solid:	28.8%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.008	0.004	
2,6,10-trimethyltridecane	0.019	0.008	0.004	
Norpristane	0.010	0.008	0.004	
Total PAH (16)	2.42	0.008	0.004	
Total PAH (42)	3.95	0.008	0.004	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	72	50 - 120
Phenanthrene-d10	79	50 - 120
Benzo(a)pyrene-d12	83	50 - 120
Perylene-d12	84	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MR-Dup 6 - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-04		
File ID:	E090331.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.16
Date Cleanup:	NA	Percent Solid:	26.6%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.111	B	0.009	0.005	
Toluene	0.272	B	0.009	0.005	
Ethylbenzene	0.015		0.009	0.005	
m/p-Xylenes	0.288		0.009	0.005	
Styrene	0.017	B	0.009	0.005	
o-Xylene	0.019		0.009	0.005	
Isopropylbenzene		U	0.009	0.005	
n-Propylbenzene	0.015		0.009	0.005	
1,3,5-Trimethylbenzene	0.011		0.009	0.005	
1,2,4-Trimethylbenzene	0.020		0.009	0.005	
t-Butylbenzene		U	0.009	0.005	
sec-Butylbenzene		U	0.009	0.005	
p-Isopropyltoluene	0.011		0.009	0.005	
n-Butylbenzene	0.017		0.009	0.005	
C1 - Benzene	0.194	B	0.009	0.005	
C2 - Benzene	0.196		0.009	0.005	
C3 - Benzene	0.047		0.009	0.005	
C4 - Benzene	0.064		0.009	0.005	
C5 - Benzene	0.032		0.009	0.005	
trans-Decalin		U	0.009	0.005	
cis-Decalin		U	0.009	0.005	
Naphthalene	0.178		0.009	0.005	
2-Methylnaphthalene	0.144		0.009	0.005	
1-Methylnaphthalene	0.059		0.009	0.005	
C1 - Naphthalene	0.124		0.009	0.005	
C2 - Naphthalene	0.155		0.009	0.005	
C3 - Naphthalene	0.074		0.009	0.005	
C4 - Naphthalene	0.052		0.009	0.005	
Acenaphthylene	0.069		0.009	0.005	
Acenaphthene	0.020		0.009	0.005	
Dibenzofuran	0.051		0.009	0.005	
Fluorene	0.068		0.009	0.005	
C1 - Fluorene	0.048		0.009	0.005	
C2 - Fluorene	0.026	I	0.009	0.005	
C3 - Fluorene	0.151		0.009	0.005	
Phenanthrene	0.259		0.009	0.005	
Anthracene	0.143		0.009	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MR-Dup 6 - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-04		
File ID:	E090331.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.16
Date Cleanup:	NA	Percent Solid:	26.6%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	IU	0.009	0.005	
C2 - Phenanthrene/Anthracene	0.163	0.009	0.005	
C3 - Phenanthrene/Anthracene	0.076	0.009	0.005	
C4 - Phenanthrene/Anthracene	0.025	0.009	0.005	
Dibenzothiophene	0.043	0.009	0.005	
C1 - Dibenzothiophene	0.036	0.009	0.005	
C2 - Dibenzothiophene	0.066	0.009	0.005	
C3 - Dibenzothiophene	0.057	0.009	0.005	
C4 - Dibenzothiophene	0.027	0.009	0.005	
Benzo(b)naphtho(2,1-d)thiophene	0.033	0.009	0.005	
Fluoranthene	0.515	0.009	0.005	
Pyrene	0.448	0.009	0.005	
C1 - Fluoranthene/Pyrene	0.246	0.009	0.005	
C2 - Fluoranthene/Pyrene	0.150	0.009	0.005	
C3 - Fluoranthene/Pyrene	0.092	0.009	0.005	
Benz(a)anthracene	0.174	0.009	0.005	
Chrysene*	0.213	0.009	0.005	
C1 - Benz(a)anthracene/Chrysene	0.124	0.009	0.005	
C2 - Benz(a)anthracene/Chrysene	0.075	0.009	0.005	
C3 - Benz(a)anthracene/Chrysene	0.017	0.009	0.005	
C4 - Benz(a)anthracene/Chrysene	0.076	0.009	0.005	
Benzo(b)fluoranthene	0.306	0.009	0.005	
Benzo(j/k)fluoranthene	0.242	0.009	0.005	
Benzo(e)pyrene	0.227	0.009	0.005	
Benzo(a)pyrene	0.205	0.009	0.005	
Perylene	0.271	0.009	0.005	
Indeno(1,2,3-cd)pyrene	0.226	0.009	0.005	
Dibenz(a,h)anthracene	0.050	0.009	0.005	
Benzo(g,h,i)perylene	0.215	0.009	0.005	
Coronene	0.069	0.009	0.005	
Retene	0.027	0.009	0.005	
Benzo(b/c)fluorenes	0.047	0.009	0.005	
2-Methylpyrene	0.032	0.009	0.005	
4-Methylpyrene	0.029	0.009	0.005	
1-Methylpyrene	0.022	0.009	0.005	
Heptadecane	0.492 B	0.009	0.005	
Pristane	0.030 B	0.009	0.005	
Octadecane	0.077 B	0.009	0.005	
Phytane	0.049 B	0.009	0.005	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MR-Dup 6 - SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100824-04		
File ID:	E090331.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/18/2010	Decanted:	None
Date Received:	8/24/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.16
Date Cleanup:	NA	Percent Solid:	26.6%
Date Analyzed:	9/5/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.009	0.005	
2,6,10-trimethyltridecane	0.029	0.009	0.005	
Norpristane	0.015	0.009	0.005	
Total PAH (16)	3.33	0.009	0.005	
Total PAH (42)	5.78	0.009	0.005	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	57	50 - 120
Phenanthrene-d10	70	50 - 120
Benzo(a)pyrene-d12	69	50 - 120
Perylene-d12	70	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01		
File ID:	E102113.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	36.05
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				
Benzene	0.462 B	0.277	0.139	
Toluene	0.538 B	0.277	0.139	
Ethylbenzene	U	0.277	0.139	
m/p-Xylenes	U	0.277	0.139	
Styrene	2.26 B	0.277	0.139	
o-Xylene	U	0.277	0.139	
Isopropylbenzene	U	0.277	0.139	
n-Propylbenzene	U	0.277	0.139	
1,3,5-Trimethylbenzene	U	0.277	0.139	
1,2,4-Trimethylbenzene	U	0.277	0.139	
t-Butylbenzene	U	0.277	0.139	
sec-Butylbenzene	U	0.277	0.139	
p-Isopropyltoluene	U	0.277	0.139	
n-Butylbenzene	U	0.277	0.139	
C1 - Benzene	0.305 B	0.277	0.139	
C2 - Benzene	U	0.277	0.139	
C3 - Benzene	U	0.277	0.139	
C4 - Benzene	U	0.277	0.139	
C5 - Benzene	U	0.277	0.139	
trans-Decalin	U	0.277	0.139	
cis-Decalin	U	0.277	0.139	
Naphthalene	U	0.277	0.139	
2-Methylnaphthalene	U	0.277	0.139	
1-Methylnaphthalene	U	0.277	0.139	
C1 - Naphthalene	U	0.277	0.139	
C2 - Naphthalene	U	0.277	0.139	
C3 - Naphthalene	U	0.277	0.139	
C4 - Naphthalene	U	0.277	0.139	
Acenaphthylene	U	0.277	0.139	
Acenaphthene	BU	0.277	0.139	
Dibenzofuran	U	0.277	0.139	
Fluorene	U	0.277	0.139	
C1 - Fluorene	U	0.277	0.139	
C2 - Fluorene	U	0.277	0.139	
C3 - Fluorene	U	0.277	0.139	
Phenanthrene	U	0.277	0.139	
Anthracene	U	0.277	0.139	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01		
File ID:	E102113.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	36.05
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.277	0.139	
C2 - Phenanthrene/Anthracene	U	0.277	0.139	
C3 - Phenanthrene/Anthracene	U	0.277	0.139	
C4 - Phenanthrene/Anthracene	U	0.277	0.139	
Dibenzothiophene	U	0.277	0.139	
C1 - Dibenzothiophene	U	0.277	0.139	
C2 - Dibenzothiophene	U	0.277	0.139	
C3 - Dibenzothiophene	U	0.277	0.139	
C4 - Dibenzothiophene	U	0.277	0.139	
Benzo(b)naphtho(2,1-d)thiophene	U	0.277	0.139	
Fluoranthene	U	0.277	0.139	
Pyrene	U	0.277	0.139	
C1 - Fluoranthene/Pyrene	U	0.277	0.139	
C2 - Fluoranthene/Pyrene	U	0.277	0.139	
C3 - Fluoranthene/Pyrene	U	0.277	0.139	
Benz(a)anthracene	U	0.277	0.139	
Chrysene*	U	0.277	0.139	
C1 - Benz(a)anthracene/Chrysene	U	0.277	0.139	
C2 - Benz(a)anthracene/Chrysene	U	0.277	0.139	
C3 - Benz(a)anthracene/Chrysene	U	0.277	0.139	
C4 - Benz(a)anthracene/Chrysene	U	0.277	0.139	
Benzo(b)fluoranthene	U	0.277	0.139	
Benzo(j/k)fluoranthene	U	0.277	0.139	
Benzo(e)pyrene	U	0.277	0.139	
Benzo(a)pyrene	U	0.277	0.139	
Perylene	U	0.277	0.139	
Indeno(1,2,3-cd)pyrene	U	0.277	0.139	
Dibenz(a,h)anthracene	U	0.277	0.139	
Benzo(g,h,i)perylene	0.165 J	0.277	0.139	
Coronene	U	0.277	0.139	
Retene	U	0.277	0.139	
Benzo(b/c)fluorenes	U	0.277	0.139	
2-Methylpyrene	U	0.277	0.139	
4-Methylpyrene	U	0.277	0.139	
1-Methylpyrene	U	0.277	0.139	
Heptadecane	0.287	0.277	0.139	
Pristane	U	0.277	0.139	
Octadecane	0.332	0.277	0.139	
Phytane	U	0.277	0.139	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01		
File ID:	E102113.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	36.05
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.277	0.139	
2,6,10-trimethyltridecane	U	0.277	0.139	
Norpristane	U	0.277	0.139	
Total PAH (16)	0.165	0.277	0.139	
Total PAH (42)	0.165	0.277	0.139	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	88	50 - 120
Phenanthrene-d10	91	50 - 120
Benzo(a)pyrene-d12	105	50 - 120
Perylene-d12	134	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MSA-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-02		
File ID:	E102115.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.59
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				
Benzene	0.722 B	0.281	0.141	
Toluene	0.539 B	0.281	0.141	
Ethylbenzene	U	0.281	0.141	
m/p-Xylenes	U	0.281	0.141	
Styrene	2.01 B	0.281	0.141	
o-Xylene	U	0.281	0.141	
Isopropylbenzene	U	0.281	0.141	
n-Propylbenzene	U	0.281	0.141	
1,3,5-Trimethylbenzene	U	0.281	0.141	
1,2,4-Trimethylbenzene	U	0.281	0.141	
t-Butylbenzene	U	0.281	0.141	
sec-Butylbenzene	U	0.281	0.141	
p-Isopropyltoluene	U	0.281	0.141	
n-Butylbenzene	U	0.281	0.141	
C1 - Benzene	0.358 B	0.281	0.141	
C2 - Benzene	U	0.281	0.141	
C3 - Benzene	U	0.281	0.141	
C4 - Benzene	U	0.281	0.141	
C5 - Benzene	U	0.281	0.141	
trans-Decalin	U	0.281	0.141	
cis-Decalin	U	0.281	0.141	
Naphthalene	U	0.281	0.141	
2-Methylnaphthalene	U	0.281	0.141	
1-Methylnaphthalene	U	0.281	0.141	
C1 - Naphthalene	U	0.281	0.141	
C2 - Naphthalene	U	0.281	0.141	
C3 - Naphthalene	U	0.281	0.141	
C4 - Naphthalene	U	0.281	0.141	
Acenaphthylene	U	0.281	0.141	
Acenaphthene	BU	0.281	0.141	
Dibenzofuran	U	0.281	0.141	
Fluorene	U	0.281	0.141	
C1 - Fluorene	U	0.281	0.141	
C2 - Fluorene	U	0.281	0.141	
C3 - Fluorene	U	0.281	0.141	
Phenanthrene	U	0.281	0.141	
Anthracene	U	0.281	0.141	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MSA-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-02		
File ID:	E102115.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.59
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.281	0.141	
C2 - Phenanthrene/Anthracene	U	0.281	0.141	
C3 - Phenanthrene/Anthracene	U	0.281	0.141	
C4 - Phenanthrene/Anthracene	U	0.281	0.141	
Dibenzothiophene	U	0.281	0.141	
C1 - Dibenzothiophene	U	0.281	0.141	
C2 - Dibenzothiophene	U	0.281	0.141	
C3 - Dibenzothiophene	U	0.281	0.141	
C4 - Dibenzothiophene	U	0.281	0.141	
Benzo(b)naphtho(2,1-d)thiophene	U	0.281	0.141	
Fluoranthene	U	0.281	0.141	
Pyrene	U	0.281	0.141	
C1 - Fluoranthene/Pyrene	U	0.281	0.141	
C2 - Fluoranthene/Pyrene	U	0.281	0.141	
C3 - Fluoranthene/Pyrene	U	0.281	0.141	
Benz(a)anthracene	U	0.281	0.141	
Chrysene*	U	0.281	0.141	
C1 - Benz(a)anthracene/Chrysene	U	0.281	0.141	
C2 - Benz(a)anthracene/Chrysene	U	0.281	0.141	
C3 - Benz(a)anthracene/Chrysene	U	0.281	0.141	
C4 - Benz(a)anthracene/Chrysene	U	0.281	0.141	
Benzo(b)fluoranthene	U	0.281	0.141	
Benzo(j/k)fluoranthene	U	0.281	0.141	
Benzo(e)pyrene	U	0.281	0.141	
Benzo(a)pyrene	U	0.281	0.141	
Perylene	U	0.281	0.141	
Indeno(1,2,3-cd)pyrene	U	0.281	0.141	
Dibenz(a,h)anthracene	U	0.281	0.141	
Benzo(g,h,i)perylene	U	0.281	0.141	
Coronene	U	0.281	0.141	
Retene	U	0.281	0.141	
Benzo(b/c)fluorenes	U	0.281	0.141	
2-Methylpyrene	U	0.281	0.141	
4-Methylpyrene	U	0.281	0.141	
1-Methylpyrene	U	0.281	0.141	
Heptadecane	0.272 J	0.281	0.141	
Pristane	U	0.281	0.141	
Octadecane	0.332	0.281	0.141	
Phytane	U	0.281	0.141	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MSA-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-02		
File ID:	E102115.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.59
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)		RL	EDL	Comments
2,6,10-trimethyldodecane		U	0.281	0.141	
2,6,10-trimethyltridecane		U	0.281	0.141	
Norpristane		U	0.281	0.141	
Total PAH (16)		U	0.281	0.141	
Total PAH (42)		U	0.281	0.141	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	91	50 - 120
Phenanthrene-d10	94	50 - 120
Benzo(a)pyrene-d12	108	50 - 120
Perylene-d12	137	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03		
File ID:	E102551.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.021	B	0.003	0.002	
Toluene	0.018	B	0.003	0.002	
Ethylbenzene	0.005		0.003	0.002	
m/p-Xylenes	0.033	B	0.003	0.002	
Styrene	0.010	B	0.003	0.002	
o-Xylene	0.006		0.003	0.002	
Isopropylbenzene		U	0.003	0.002	
n-Propylbenzene		U	0.003	0.002	
1,3,5-Trimethylbenzene		U	0.003	0.002	
1,2,4-Trimethylbenzene	0.003		0.003	0.002	
t-Butylbenzene		U	0.003	0.002	
sec-Butylbenzene		U	0.003	0.002	
p-Isopropyltoluene	0.003	J	0.003	0.002	
n-Butylbenzene	0.005		0.003	0.002	
C1 - Benzene	0.012	B	0.003	0.002	
C2 - Benzene	0.036	B	0.003	0.002	
C3 - Benzene	0.015	B	0.003	0.002	
C4 - Benzene	0.017		0.003	0.002	
C5 - Benzene	0.024		0.003	0.002	
trans-Decalin		U	0.003	0.002	
cis-Decalin	0.005		0.003	0.002	
Naphthalene	0.010		0.003	0.002	
2-Methylnaphthalene	0.009		0.003	0.002	
1-Methylnaphthalene	0.005		0.003	0.002	
C1 - Naphthalene	0.009		0.003	0.002	
C2 - Naphthalene	0.016	B	0.003	0.002	
C3 - Naphthalene	0.019		0.003	0.002	
C4 - Naphthalene	0.016		0.003	0.002	
Acenaphthylene	0.052	B	0.003	0.002	
Acenaphthene	0.008		0.003	0.002	
Dibenzofuran	0.003		0.003	0.002	
Fluorene	0.007		0.003	0.002	
C1 - Fluorene	0.011		0.003	0.002	
C2 - Fluorene	0.015		0.003	0.002	
C3 - Fluorene	0.028		0.003	0.002	
Phenanthrene	0.090		0.003	0.002	
Anthracene	0.027		0.003	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03		
File ID:	E102551.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.050	0.003	0.002	
C2 - Phenanthrene/Anthracene	0.045	0.003	0.002	
C3 - Phenanthrene/Anthracene	0.042	0.003	0.002	
C4 - Phenanthrene/Anthracene	0.034	0.003	0.002	
Dibenzothiophene	0.005	0.003	0.002	
C1 - Dibenzothiophene	0.007	0.003	0.002	
C2 - Dibenzothiophene	0.021	0.003	0.002	
C3 - Dibenzothiophene	0.040	0.003	0.002	
C4 - Dibenzothiophene	0.035	0.003	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.022	0.003	0.002	
Fluoranthene	0.220	0.003	0.002	
Pyrene	0.191	0.003	0.002	
C1 - Fluoranthene/Pyrene	0.111	0.003	0.002	
C2 - Fluoranthene/Pyrene	0.091	0.003	0.002	
C3 - Fluoranthene/Pyrene	0.072	0.003	0.002	
Benz(a)anthracene	0.092	0.003	0.002	
Chrysene*	0.144	0.003	0.002	
C1 - Benz(a)anthracene/Chrysene	0.073	0.003	0.002	
C2 - Benz(a)anthracene/Chrysene	0.071	0.003	0.002	
C3 - Benz(a)anthracene/Chrysene	0.062	0.003	0.002	
C4 - Benz(a)anthracene/Chrysene	0.047	0.003	0.002	
Benzo(b)fluoranthene	0.126	0.003	0.002	
Benzo(j/k)fluoranthene	0.117	0.003	0.002	
Benzo(e)pyrene	0.115	0.003	0.002	
Benzo(a)pyrene	0.130	0.003	0.002	
Perylene	0.037	0.003	0.002	
Indeno(1,2,3-cd)pyrene	0.109	0.003	0.002	
Dibenz(a,h)anthracene	0.026	0.003	0.002	
Benzo(g,h,i)perylene	0.121	0.003	0.002	
Coronene	0.043	0.003	0.002	
Retene	0.018	0.003	0.002	
Benzo(b/c)fluorenes	0.015	0.003	0.002	
2-Methylpyrene	0.015	0.003	0.002	
4-Methylpyrene	0.017	0.003	0.002	
1-Methylpyrene	0.012	0.003	0.002	
Heptadecane	0.043 B	0.003	0.002	
Pristane	0.020 B	0.003	0.002	
Octadecane	0.034 B	0.003	0.002	
Phytane	0.019	0.003	0.002	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03		
File ID:	E102551.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	0.007	0.003	0.002	
2,6,10-trimethyltridecane	0.014	0.003	0.002	
Norpristane	0.010	0.003	0.002	
Total PAH (16)	1.47	0.003	0.002	
Total PAH (42)	2.54	0.003	0.002	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	48	50 - 120
Phenanthrene-d10	58	50 - 120
Benzo(a)pyrene-d12	81	50 - 120
Perylene-d12	67	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SB		
File ID:	E090306.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:		Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				
Benzene	0.002 J	0.003	0.001	
Toluene	0.004	0.003	0.001	
Ethylbenzene	U	0.003	0.001	
m/p-Xylenes	U	0.003	0.001	
Styrene	0.007	0.003	0.001	
o-Xylene	U	0.003	0.001	
Isopropylbenzene	U	0.003	0.001	
n-Propylbenzene	U	0.003	0.001	
1,3,5-Trimethylbenzene	U	0.003	0.001	
1,2,4-Trimethylbenzene	U	0.003	0.001	
t-Butylbenzene	U	0.003	0.001	
sec-Butylbenzene	U	0.003	0.001	
p-Isopropyltoluene	U	0.003	0.001	
n-Butylbenzene	U	0.003	0.001	
C1 - Benzene	0.003 J	0.003	0.001	
C2 - Benzene	U	0.003	0.001	
C3 - Benzene	U	0.003	0.001	
C4 - Benzene	U	0.003	0.001	
C5 - Benzene	U	0.003	0.001	
trans-Decalin	U	0.003	0.001	
cis-Decalin	U	0.003	0.001	
Naphthalene	U	0.003	0.001	
2-Methylnaphthalene	U	0.003	0.001	
1-Methylnaphthalene	U	0.003	0.001	
C1 - Naphthalene	U	0.003	0.001	
C2 - Naphthalene	U	0.003	0.001	
C3 - Naphthalene	U	0.003	0.001	
C4 - Naphthalene	U	0.003	0.001	
Acenaphthylene	U	0.003	0.001	
Acenaphthene	U	0.003	0.001	
Dibenzofuran	U	0.003	0.001	
Fluorene	U	0.003	0.001	
C1 - Fluorene	U	0.003	0.001	
C2 - Fluorene	U	0.003	0.001	
C3 - Fluorene	U	0.003	0.001	
Phenanthrene	U	0.003	0.001	
Anthracene	U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SB		
File ID:	E090306.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:		Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.003	0.001	
C2 - Phenanthrene/Anthracene	U	0.003	0.001	
C3 - Phenanthrene/Anthracene	U	0.003	0.001	
C4 - Phenanthrene/Anthracene	U	0.003	0.001	
Dibenzothiophene	U	0.003	0.001	
C1 - Dibenzothiophene	U	0.003	0.001	
C2 - Dibenzothiophene	U	0.003	0.001	
C3 - Dibenzothiophene	U	0.003	0.001	
C4 - Dibenzothiophene	U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene	U	0.003	0.001	
Fluoranthene	U	0.003	0.001	
Pyrene	U	0.003	0.001	
C1 - Fluoranthene/Pyrene	U	0.003	0.001	
C2 - Fluoranthene/Pyrene	U	0.003	0.001	
C3 - Fluoranthene/Pyrene	U	0.003	0.001	
Benz(a)anthracene	U	0.003	0.001	
Chrysene*	U	0.003	0.001	
C1 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
Benzo(b)fluoranthene	U	0.003	0.001	
Benzo(j/k)fluoranthene	U	0.003	0.001	
Benzo(e)pyrene	U	0.003	0.001	
Benzo(a)pyrene	U	0.003	0.001	
Perylene	U	0.003	0.001	
Indeno(1,2,3-cd)pyrene	U	0.003	0.001	
Dibenz(a,h)anthracene	U	0.003	0.001	
Benzo(g,h,i)perylene	U	0.003	0.001	
Coronene	U	0.003	0.001	
Retene	U	0.003	0.001	
Benzo(b/c)fluorenes	U	0.003	0.001	
2-Methylpyrene	U	0.003	0.001	
4-Methylpyrene	U	0.003	0.001	
1-Methylpyrene	U	0.003	0.001	
Heptadecane	0.003 J	0.003	0.001	
Pristane	0.002 J	0.003	0.001	
Octadecane	0.002 J	0.003	0.001	
Phytane	0.002 J	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SB		
File ID:	E090306.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:		Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	
Total PAH (16)	U	0.003	0.001	
Total PAH (42)	U	0.003	0.001	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	86	50 - 120
Phenanthrene-d10	92	50 - 120
Benzo(a)pyrene-d12	103	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SBS		
File ID:	E090307.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)			RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount					% Recovery
Benzene	2.5	1.97	B	0.003	0.001	79
Toluene	2.5	2.24	B	0.003	0.001	90
Ethylbenzene	2.5	2.2		0.003	0.001	88
m/p-Xylenes	2.5	2.21		0.003	0.001	88
Styrene	2.5	2.38	B	0.003	0.001	95
o-Xylene	2.5	2.26		0.003	0.001	90
Isopropylbenzene	2.5	2.29		0.003	0.001	92
n-Propylbenzene	2.5	2.31		0.003	0.001	92
1,3,5-Trimethylbenzene	2.5	2.32		0.003	0.001	93
1,2,4-Trimethylbenzene	2.5	2.25		0.003	0.001	90
t-Butylbenzene			U	0.003	0.001	
sec-Butylbenzene	2.5	2.26		0.003	0.001	90
p-Isopropyltoluene	2.5	2.26		0.003	0.001	90
n-Butylbenzene	2.5	2.34		0.003	0.001	94
C1 - Benzene			BU	0.003	0.001	
C2 - Benzene			U	0.003	0.001	
C3 - Benzene			U	0.003	0.001	
C4 - Benzene			U	0.003	0.001	
C5 - Benzene			U	0.003	0.001	
trans-Decalin			U	0.003	0.001	
cis-Decalin			U	0.003	0.001	
Naphthalene	2.5	2.34		0.003	0.001	94
2-Methylnaphthalene	2.5	2.34		0.003	0.001	94
1-Methylnaphthalene	2.5	2.39		0.003	0.001	96
C1 - Naphthalene			U	0.003	0.001	
C2 - Naphthalene			U	0.003	0.001	
C3 - Naphthalene			U	0.003	0.001	
C4 - Naphthalene			U	0.003	0.001	
Acenaphthylene	2.5	2.64		0.003	0.001	106
Acenaphthene	2.5	2.51		0.003	0.001	100
Dibenzofuran	2.5	2.62		0.003	0.001	105
Fluorene	2.5	2.62		0.003	0.001	105
C1 - Fluorene			U	0.003	0.001	
C2 - Fluorene			U	0.003	0.001	
C3 - Fluorene			U	0.003	0.001	
Phenanthrene	2.5	2.64		0.003	0.001	106
Anthracene	2.5	2.68		0.003	0.001	107

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SBS		
File ID:	E090307.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		U	0.003	0.001	
C2 - Phenanthrene/Anthracene		U	0.003	0.001	
C3 - Phenanthrene/Anthracene		U	0.003	0.001	
C4 - Phenanthrene/Anthracene		U	0.003	0.001	
Dibenzothiophene	2.5	2.73	0.003	0.001	109
C1 - Dibenzothiophene		U	0.003	0.001	
C2 - Dibenzothiophene		U	0.003	0.001	
C3 - Dibenzothiophene		U	0.003	0.001	
C4 - Dibenzothiophene		U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene		U	0.003	0.001	
Fluoranthene	2.5	2.58	0.003	0.001	103
Pyrene	2.5	2.56	0.003	0.001	102
C1 - Fluoranthene/Pyrene		U	0.003	0.001	
C2 - Fluoranthene/Pyrene		U	0.003	0.001	
C3 - Fluoranthene/Pyrene		U	0.003	0.001	
Benz(a)anthracene	2.5	2.58	0.003	0.001	103
Chrysene*	2.5	2.54	0.003	0.001	102
C1 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
Benzo(b)fluoranthene	2.5	2.7	0.003	0.001	108
Benzo(j/k)fluoranthene	2.5	2.66	0.003	0.001	106
Benzo(e)pyrene	2.5	2.56	0.003	0.001	102
Benzo(a)pyrene	2.5	2.59	0.003	0.001	104
Perylene		U	0.003	0.001	
Indeno(1,2,3-cd)pyrene	2.5	3.35	0.003	0.001	134
Dibenz(a,h)anthracene	2.5	2.77	0.003	0.001	111
Benzo(g,h,i)perylene	2.5	2.74	0.003	0.001	110
Coronene		U	0.003	0.001	
Retene		U	0.003	0.001	
Benzo(b/c)fluorenes		U	0.003	0.001	
2-Methylpyrene		U	0.003	0.001	
4-Methylpyrene		U	0.003	0.001	
1-Methylpyrene		U	0.003	0.001	
Heptadecane		BU	0.003	0.001	
Pristane		BU	0.003	0.001	
Octadecane		BU	0.003	0.001	
Phytane		BU	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC100824-SBS		
File ID:	E090307.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	8/24/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	9/3/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
2,6,10-trimethyldodecane		U	0.003	0.001	
2,6,10-trimethyltridecane		U	0.003	0.001	
Norpristane		U	0.003	0.001	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	82	50 - 120
Phenanthrene-d10	91	50 - 120
Benzo(a)pyrene-d12	105	50 - 120
Perylene-d12	104	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01DUP		
File ID:	E090309.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					RPD
Benzene	0.333	B	0.009	0.004	13.5
Toluene	0.686	B	0.009	0.004	4.8
Ethylbenzene	0.024		0.009	0.004	4.3
m/p-Xylenes	0.752		0.009	0.004	12.1
Styrene	0.026	B	0.009	0.004	47.6
o-Xylene	0.046		0.009	0.004	4.4
Isopropylbenzene		U	0.009	0.004	NA
n-Propylbenzene	0.021		0.009	0.004	4.9
1,3,5-Trimethylbenzene	0.015		0.009	0.004	14.3
1,2,4-Trimethylbenzene	0.031		0.009	0.004	6.7
t-Butylbenzene		U	0.009	0.004	NA
sec-Butylbenzene		U	0.009	0.004	NA
p-Isopropyltoluene	0.012		0.009	0.004	8.7
n-Butylbenzene	0.027		0.009	0.004	3.8
C1 - Benzene	0.482	B	0.009	0.004	4.5
C2 - Benzene	0.477		0.009	0.004	15.1
C3 - Benzene	0.077		0.009	0.004	9.5
C4 - Benzene	0.064		0.009	0.004	30.6
C5 - Benzene	0.063		0.009	0.004	31.2
trans-Decalin	0.008	J	0.009	0.004	46.2
cis-Decalin		U	0.009	0.004	NA
Naphthalene	0.217		0.009	0.004	2.3
2-Methylnaphthalene	0.176		0.009	0.004	5.8
1-Methylnaphthalene	0.084		0.009	0.004	6.1
C1 - Naphthalene	0.158		0.009	0.004	7.9
C2 - Naphthalene	0.325		0.009	0.004	5.4
C3 - Naphthalene	0.120		0.009	0.004	4.1
C4 - Naphthalene	0.092		0.009	0.004	4.4
Acenaphthylene	0.173		0.009	0.004	18.3
Acenaphthene	0.076		0.009	0.004	2.7
Dibenzofuran	0.094		0.009	0.004	1.1
Fluorene	0.111		0.009	0.004	2.7
C1 - Fluorene	0.084		0.009	0.004	4.9
C2 - Fluorene	0.088	I	0.009	0.004	66.2
C3 - Fluorene	0.381		0.009	0.004	5.7
Phenanthrene	0.911		0.009	0.004	1.3
Anthracene	0.328		0.009	0.004	8.9

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01DUP		
File ID:	E090309.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.693 I	0.009	0.004	83.2
C2 - Phenanthrene/Anthracene	0.399	0.009	0.004	0
C3 - Phenanthrene/Anthracene	0.236	0.009	0.004	11.7
C4 - Phenanthrene/Anthracene	0.096	0.009	0.004	13.3
Dibenzothiophene	0.104	0.009	0.004	2.9
C1 - Dibenzothiophene	0.081	0.009	0.004	7.7
C2 - Dibenzothiophene	0.167	0.009	0.004	3.7
C3 - Dibenzothiophene	0.164	0.009	0.004	8.3
C4 - Dibenzothiophene	0.080	0.009	0.004	16.1
Benzo(b)naphtho(2,1-d)thiophene	0.232	0.009	0.004	1.7
Fluoranthene	3.16	0.009	0.004	1.6
Pyrene	2.65	0.009	0.004	1.1
C1 - Fluoranthene/Pyrene	1.16	0.009	0.004	0.9
C2 - Fluoranthene/Pyrene	0.747	0.009	0.004	2.4
C3 - Fluoranthene/Pyrene	0.383	0.009	0.004	2.1
Benz(a)anthracene	0.985	0.009	0.004	1.8
Chrysene*	1.4	0.009	0.004	3.5
C1 - Benz(a)anthracene/Chrysene	0.637	0.009	0.004	1.4
C2 - Benz(a)anthracene/Chrysene	0.357	0.009	0.004	10.3
C3 - Benz(a)anthracene/Chrysene	0.198	0.009	0.004	3.5
C4 - Benz(a)anthracene/Chrysene	0.246	0.009	0.004	63.1
Benzo(b)fluoranthene	1.87	0.009	0.004	1.1
Benzo(j/k)fluoranthene	1.64	0.009	0.004	1.8
Benzo(e)pyrene	1.44	0.009	0.004	0.7
Benzo(a)pyrene	1.58	0.009	0.004	1.3
Perylene	0.609	0.009	0.004	0.7
Indeno(1,2,3-cd)pyrene	1.6	0.009	0.004	1.3
Dibenz(a,h)anthracene	0.340	0.009	0.004	0.6
Benzo(g,h,i)perylene	1.56	0.009	0.004	0
Coronene	0.500	0.009	0.004	0.2
Retene	0.036	0.009	0.004	26.5
Benzo(b/c)fluorenes	0.201	0.009	0.004	2.5
2-Methylpyrene	0.164	0.009	0.004	0
4-Methylpyrene	0.143	0.009	0.004	2.8
1-Methylpyrene	0.112	0.009	0.004	7.4
Heptadecane	0.551 B	0.009	0.004	8.1
Pristane	0.061 B	0.009	0.004	25.7
Octadecane	0.155 B	0.009	0.004	22.2
Phytane	0.126 B	0.009	0.004	16.3

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: SD-90-SS

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT100819-01DUP		
File ID:	E090309.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	8/17/2010	Decanted:	None
Date Received:	8/19/2010		
Date Prepared:	8/24/2010	Sample Size (g):	4.07
Date Cleanup:	NA	Percent Solid:	27.5%
Date Analyzed:	9/4/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	CAM	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC100824-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.009	0.004	NA
2,6,10-trimethyltridecane	0.064	0.009	0.004	72.3
Norpristane	0.026	0.009	0.004	21.3
Total PAH (16)	18.6	0.009	0.004	1.1
Total PAH (42)	27.7	0.009	0.004	2.5

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	89	50 - 120
Phenanthrene-d10	94	50 - 120
Benzo(a)pyrene-d12	104	50 - 120
Perylene-d12	107	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-AB1		
File ID:	E102111.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/21/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				
Benzene	0.679	0.286	0.143	
Toluene	0.490	0.286	0.143	
Ethylbenzene	U	0.286	0.143	
m/p-Xylenes	U	0.286	0.143	
Styrene	2.37	0.286	0.143	
o-Xylene	U	0.286	0.143	
Isopropylbenzene	U	0.286	0.143	
n-Propylbenzene	U	0.286	0.143	
1,3,5-Trimethylbenzene	U	0.286	0.143	
1,2,4-Trimethylbenzene	U	0.286	0.143	
t-Butylbenzene	U	0.286	0.143	
sec-Butylbenzene	U	0.286	0.143	
p-Isopropyltoluene	U	0.286	0.143	
n-Butylbenzene	U	0.286	0.143	
C1 - Benzene	0.319	0.286	0.143	
C2 - Benzene	U	0.286	0.143	
C3 - Benzene	U	0.286	0.143	
C4 - Benzene	U	0.286	0.143	
C5 - Benzene	U	0.286	0.143	
trans-Decalin	U	0.286	0.143	
cis-Decalin	U	0.286	0.143	
Naphthalene	U	0.286	0.143	
2-Methylnaphthalene	U	0.286	0.143	
1-Methylnaphthalene	U	0.286	0.143	
C1 - Naphthalene	U	0.286	0.143	
C2 - Naphthalene	U	0.286	0.143	
C3 - Naphthalene	U	0.286	0.143	
C4 - Naphthalene	U	0.286	0.143	
Acenaphthylene	U	0.286	0.143	
Acenaphthene	0.156 J	0.286	0.143	
Dibenzofuran	U	0.286	0.143	
Fluorene	U	0.286	0.143	
C1 - Fluorene	U	0.286	0.143	
C2 - Fluorene	U	0.286	0.143	
C3 - Fluorene	U	0.286	0.143	
Phenanthrene	U	0.286	0.143	
Anthracene	U	0.286	0.143	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-AB1		
File ID:	E102111.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/21/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.286	0.143	
C2 - Phenanthrene/Anthracene	U	0.286	0.143	
C3 - Phenanthrene/Anthracene	U	0.286	0.143	
C4 - Phenanthrene/Anthracene	U	0.286	0.143	
Dibenzothiophene	U	0.286	0.143	
C1 - Dibenzothiophene	U	0.286	0.143	
C2 - Dibenzothiophene	U	0.286	0.143	
C3 - Dibenzothiophene	U	0.286	0.143	
C4 - Dibenzothiophene	U	0.286	0.143	
Benzo(b)naphtho(2,1-d)thiophene	U	0.286	0.143	
Fluoranthene	U	0.286	0.143	
Pyrene	U	0.286	0.143	
C1 - Fluoranthene/Pyrene	U	0.286	0.143	
C2 - Fluoranthene/Pyrene	U	0.286	0.143	
C3 - Fluoranthene/Pyrene	U	0.286	0.143	
Benz(a)anthracene	U	0.286	0.143	
Chrysene*	U	0.286	0.143	
C1 - Benz(a)anthracene/Chrysene	U	0.286	0.143	
C2 - Benz(a)anthracene/Chrysene	U	0.286	0.143	
C3 - Benz(a)anthracene/Chrysene	U	0.286	0.143	
C4 - Benz(a)anthracene/Chrysene	U	0.286	0.143	
Benzo(b)fluoranthene	U	0.286	0.143	
Benzo(j/k)fluoranthene	U	0.286	0.143	
Benzo(e)pyrene	U	0.286	0.143	
Benzo(a)pyrene	U	0.286	0.143	
Perylene	U	0.286	0.143	
Indeno(1,2,3-cd)pyrene	U	0.286	0.143	
Dibenz(a,h)anthracene	U	0.286	0.143	
Benzo(g,h,i)perylene	U	0.286	0.143	
Coronene	U	0.286	0.143	
Retene	U	0.286	0.143	
Benzo(b/c)fluorenes	U	0.286	0.143	
2-Methylpyrene	U	0.286	0.143	
4-Methylpyrene	U	0.286	0.143	
1-Methylpyrene	U	0.286	0.143	
Heptadecane	U	0.286	0.143	
Pristane	U	0.286	0.143	
Octadecane	U	0.286	0.143	
Phytane	U	0.286	0.143	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-AB1		
File ID:	E102111.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/21/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.286	0.143	
2,6,10-trimethyltridecane	U	0.286	0.143	
Norpristane	U	0.286	0.143	
Total PAH (16)	0.156	0.286	0.143	
Total PAH (42)	0.156	0.286	0.143	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	85	50 - 120
Phenanthrene-d10	91	50 - 120
Benzo(a)pyrene-d12	101	50 - 120
Perylene-d12	131	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-ABS1		
File ID:	E102112.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)			RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount					% Recovery
Benzene	286	259	B	0.286	0.143	91
Toluene	286	257	B	0.286	0.143	90
Ethylbenzene	286	242		0.286	0.143	85
m/p-Xylenes	286	230		0.286	0.143	80
Styrene	286	261	B	0.286	0.143	91
o-Xylene	286	244		0.286	0.143	85
Isopropylbenzene	286	253		0.286	0.143	88
n-Propylbenzene	286	252		0.286	0.143	88
1,3,5-Trimethylbenzene	286	250		0.286	0.143	87
1,2,4-Trimethylbenzene	286	244		0.286	0.143	85
t-Butylbenzene			U	0.286	0.143	
sec-Butylbenzene	286	252		0.286	0.143	88
p-Isopropyltoluene	286	257		0.286	0.143	90
n-Butylbenzene	286	254		0.286	0.143	89
C1 - Benzene			BU	0.286	0.143	
C2 - Benzene			U	0.286	0.143	
C3 - Benzene			U	0.286	0.143	
C4 - Benzene			U	0.286	0.143	
C5 - Benzene			U	0.286	0.143	
trans-Decalin			U	0.286	0.143	
cis-Decalin			U	0.286	0.143	
Naphthalene	286	260		0.286	0.143	91
2-Methylnaphthalene	286	260		0.286	0.143	91
1-Methylnaphthalene	286	261		0.286	0.143	91
C1 - Naphthalene			U	0.286	0.143	
C2 - Naphthalene			U	0.286	0.143	
C3 - Naphthalene			U	0.286	0.143	
C4 - Naphthalene			U	0.286	0.143	
Acenaphthylene	286	289		0.286	0.143	101
Acenaphthene	286	272	B	0.286	0.143	95
Dibenzofuran	286	272		0.286	0.143	95
Fluorene	286	276		0.286	0.143	97
C1 - Fluorene			U	0.286	0.143	
C2 - Fluorene			U	0.286	0.143	
C3 - Fluorene			U	0.286	0.143	
Phenanthrene	286	276		0.286	0.143	97
Anthracene	286	266		0.286	0.143	93

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-ABS1		
File ID:	E102112.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte		Concentration (µg/L)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene			U	0.286	0.143	
C2 - Phenanthrene/Anthracene			U	0.286	0.143	
C3 - Phenanthrene/Anthracene			U	0.286	0.143	
C4 - Phenanthrene/Anthracene			U	0.286	0.143	
Dibenzothiophene	286	276		0.286	0.143	97
C1 - Dibenzothiophene			U	0.286	0.143	
C2 - Dibenzothiophene			U	0.286	0.143	
C3 - Dibenzothiophene			U	0.286	0.143	
C4 - Dibenzothiophene			U	0.286	0.143	
Benzo(b)naphtho(2,1-d)thiophene			U	0.286	0.143	
Fluoranthene	286	277		0.286	0.143	97
Pyrene	286	281		0.286	0.143	98
C1 - Fluoranthene/Pyrene			U	0.286	0.143	
C2 - Fluoranthene/Pyrene			U	0.286	0.143	
C3 - Fluoranthene/Pyrene			U	0.286	0.143	
Benz(a)anthracene	286	277		0.286	0.143	97
Chrysene*	286	271		0.286	0.143	95
C1 - Benz(a)anthracene/Chrysene			U	0.286	0.143	
C2 - Benz(a)anthracene/Chrysene			U	0.286	0.143	
C3 - Benz(a)anthracene/Chrysene			U	0.286	0.143	
C4 - Benz(a)anthracene/Chrysene			U	0.286	0.143	
Benzo(b)fluoranthene	286	277		0.286	0.143	97
Benzo(j/k)fluoranthene	286	279		0.286	0.143	98
Benzo(e)pyrene	286	269		0.286	0.143	94
Benzo(a)pyrene	286	264		0.286	0.143	92
Perylene			U	0.286	0.143	
Indeno(1,2,3-cd)pyrene	286	272		0.286	0.143	95
Dibenz(a,h)anthracene	286	275		0.286	0.143	96
Benzo(g,h,i)perylene	286	270		0.286	0.143	94
Coronene			U	0.286	0.143	
Retene			U	0.286	0.143	
Benzo(b/c)fluorenes			U	0.286	0.143	
2-Methylpyrene			U	0.286	0.143	
4-Methylpyrene			U	0.286	0.143	
1-Methylpyrene			U	0.286	0.143	
Heptadecane			U	0.286	0.143	
Pristane			U	0.286	0.143	
Octadecane			U	0.286	0.143	
Phytane			U	0.286	0.143	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Aqueous Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101020-ABS1		
File ID:	E102112.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.00
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)		RL	EDL	Comments
2,6,10-trimethyldodecane		U	0.286	0.143	
2,6,10-trimethyltridecane		U	0.286	0.143	
Norpristane		U	0.286	0.143	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	83	50 - 120
Phenanthrene-d10	86	50 - 120
Benzo(a)pyrene-d12	101	50 - 120
Perylene-d12	126	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01DUP		
File ID:	E102114.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.65
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					RPD
Benzene	1.82	B	0.281	0.140	96.4
Toluene	0.988	B	0.281	0.140	59
Ethylbenzene	0.156	J	0.281	0.140	NA
m/p-Xylenes	0.329		0.281	0.140	NA
Styrene	2.04	B	0.281	0.140	10.2
o-Xylene	0.212	J	0.281	0.140	NA
Isopropylbenzene		U	0.281	0.140	NA
n-Propylbenzene		U	0.281	0.140	NA
1,3,5-Trimethylbenzene		U	0.281	0.140	NA
1,2,4-Trimethylbenzene	0.163	J	0.281	0.140	NA
t-Butylbenzene		U	0.281	0.140	NA
sec-Butylbenzene		U	0.281	0.140	NA
p-Isopropyltoluene		U	0.281	0.140	NA
n-Butylbenzene		U	0.281	0.140	NA
C1 - Benzene	0.658	B	0.281	0.140	73.3
C2 - Benzene	0.396		0.281	0.140	NA
C3 - Benzene	0.563		0.281	0.140	NA
C4 - Benzene		U	0.281	0.140	NA
C5 - Benzene		U	0.281	0.140	NA
trans-Decalin		U	0.281	0.140	NA
cis-Decalin		U	0.281	0.140	NA
Naphthalene	1.22		0.281	0.140	NA
2-Methylnaphthalene	0.218	J	0.281	0.140	NA
1-Methylnaphthalene	0.151	J	0.281	0.140	NA
C1 - Naphthalene	0.284		0.281	0.140	NA
C2 - Naphthalene		U	0.281	0.140	NA
C3 - Naphthalene		U	0.281	0.140	NA
C4 - Naphthalene		U	0.281	0.140	NA
Acenaphthylene		U	0.281	0.140	NA
Acenaphthene		BU	0.281	0.140	NA
Dibenzofuran		U	0.281	0.140	NA
Fluorene		U	0.281	0.140	NA
C1 - Fluorene		U	0.281	0.140	NA
C2 - Fluorene		U	0.281	0.140	NA
C3 - Fluorene		U	0.281	0.140	NA
Phenanthrene	0.195	J	0.281	0.140	NA
Anthracene		U	0.281	0.140	NA

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01DUP		
File ID:	E102114.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.65
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.281	0.140	NA
C2 - Phenanthrene/Anthracene	U	0.281	0.140	NA
C3 - Phenanthrene/Anthracene	U	0.281	0.140	NA
C4 - Phenanthrene/Anthracene	U	0.281	0.140	NA
Dibenzothiophene	U	0.281	0.140	NA
C1 - Dibenzothiophene	U	0.281	0.140	NA
C2 - Dibenzothiophene	0.183 J	0.281	0.140	NA
C3 - Dibenzothiophene	0.176 J	0.281	0.140	NA
C4 - Dibenzothiophene	U	0.281	0.140	NA
Benzo(b)naphtho(2,1-d)thiophene	U	0.281	0.140	NA
Fluoranthene	U	0.281	0.140	NA
Pyrene	U	0.281	0.140	NA
C1 - Fluoranthene/Pyrene	U	0.281	0.140	NA
C2 - Fluoranthene/Pyrene	U	0.281	0.140	NA
C3 - Fluoranthene/Pyrene	U	0.281	0.140	NA
Benz(a)anthracene	U	0.281	0.140	NA
Chrysene*	U	0.281	0.140	NA
C1 - Benz(a)anthracene/Chrysene	U	0.281	0.140	NA
C2 - Benz(a)anthracene/Chrysene	U	0.281	0.140	NA
C3 - Benz(a)anthracene/Chrysene	U	0.281	0.140	NA
C4 - Benz(a)anthracene/Chrysene	U	0.281	0.140	NA
Benzo(b)fluoranthene	U	0.281	0.140	NA
Benzo(j/k)fluoranthene	U	0.281	0.140	NA
Benzo(e)pyrene	U	0.281	0.140	NA
Benzo(a)pyrene	U	0.281	0.140	NA
Perylene	U	0.281	0.140	NA
Indeno(1,2,3-cd)pyrene	U	0.281	0.140	NA
Dibenz(a,h)anthracene	U	0.281	0.140	NA
Benzo(g,h,i)perylene	U	0.281	0.140	NA
Coronene	U	0.281	0.140	NA
Retene	U	0.281	0.140	NA
Benzo(b/c)fluorenes	U	0.281	0.140	NA
2-Methylpyrene	U	0.281	0.140	NA
4-Methylpyrene	U	0.281	0.140	NA
1-Methylpyrene	U	0.281	0.140	NA
Heptadecane	0.279 J	0.281	0.140	2.8
Pristane	U	0.281	0.140	NA
Octadecane	0.343	0.281	0.140	3.3
Phytane	U	0.281	0.140	NA

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SW-1

Client:	Tetra Tech	Preparation Method:	EPA 3511
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-01DUP		
File ID:	E102114.D	Matrix:	Aqueous
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/20/2010	Sample Volume (ml)	35.65
Date Cleanup:	NA	Percent Solid:	NA
Date Analyzed:	10/22/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101020-AB1		

Analyte	Concentration (µg/L)		RL	EDL	Comments
2,6,10-trimethyldodecane		U	0.281	0.140	NA
2,6,10-trimethyltridecane	1.78		0.281	0.140	NA
Norpristane		U	0.281	0.140	NA
Total PAH (16)	1.42		0.281	0.140	100.7
Total PAH (42)	2.06		0.281	0.140	125.8

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	88	50 - 120
Phenanthrene-d10	93	50 - 120
Benzo(a)pyrene-d12	107	50 - 120
Perylene-d12	134	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SB		
File ID:	E102532.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					
Benzene	0.008		0.003	0.001	
Toluene	0.007		0.003	0.001	
Ethylbenzene		U	0.003	0.001	
m/p-Xylenes	0.003		0.003	0.001	
Styrene	0.005		0.003	0.001	
o-Xylene		U	0.003	0.001	
Isopropylbenzene		U	0.003	0.001	
n-Propylbenzene		U	0.003	0.001	
1,3,5-Trimethylbenzene		U	0.003	0.001	
1,2,4-Trimethylbenzene		U	0.003	0.001	
t-Butylbenzene		U	0.003	0.001	
sec-Butylbenzene		U	0.003	0.001	
p-Isopropyltoluene		U	0.003	0.001	
n-Butylbenzene		U	0.003	0.001	
C1 - Benzene	0.005		0.003	0.001	
C2 - Benzene	0.004		0.003	0.001	
C3 - Benzene	0.003	J	0.003	0.001	
C4 - Benzene		U	0.003	0.001	
C5 - Benzene		U	0.003	0.001	
trans-Decalin		U	0.003	0.001	
cis-Decalin		U	0.003	0.001	
Naphthalene		U	0.003	0.001	
2-Methylnaphthalene		U	0.003	0.001	
1-Methylnaphthalene		U	0.003	0.001	
C1 - Naphthalene		U	0.003	0.001	
C2 - Naphthalene	0.002	J	0.003	0.001	
C3 - Naphthalene		U	0.003	0.001	
C4 - Naphthalene		U	0.003	0.001	
Acenaphthylene	0.003	J	0.003	0.001	
Acenaphthene		U	0.003	0.001	
Dibenzofuran		U	0.003	0.001	
Fluorene		U	0.003	0.001	
C1 - Fluorene		U	0.003	0.001	
C2 - Fluorene		U	0.003	0.001	
C3 - Fluorene		U	0.003	0.001	
Phenanthrene		U	0.003	0.001	
Anthracene		U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SB		
File ID:	E102532.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		U	0.003	0.001	
C2 - Phenanthrene/Anthracene		U	0.003	0.001	
C3 - Phenanthrene/Anthracene		U	0.003	0.001	
C4 - Phenanthrene/Anthracene		U	0.003	0.001	
Dibenzothiophene		U	0.003	0.001	
C1 - Dibenzothiophene		U	0.003	0.001	
C2 - Dibenzothiophene		U	0.003	0.001	
C3 - Dibenzothiophene		U	0.003	0.001	
C4 - Dibenzothiophene		U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene		U	0.003	0.001	
Fluoranthene		U	0.003	0.001	
Pyrene		U	0.003	0.001	
C1 - Fluoranthene/Pyrene		U	0.003	0.001	
C2 - Fluoranthene/Pyrene		U	0.003	0.001	
C3 - Fluoranthene/Pyrene		U	0.003	0.001	
Benz(a)anthracene		U	0.003	0.001	
Chrysene*		U	0.003	0.001	
C1 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
Benzo(b)fluoranthene		U	0.003	0.001	
Benzo(j/k)fluoranthene		U	0.003	0.001	
Benzo(e)pyrene		U	0.003	0.001	
Benzo(a)pyrene		U	0.003	0.001	
Perylene		U	0.003	0.001	
Indeno(1,2,3-cd)pyrene		U	0.003	0.001	
Dibenz(a,h)anthracene		U	0.003	0.001	
Benzo(g,h,i)perylene		U	0.003	0.001	
Coronene		U	0.003	0.001	
Retene		U	0.003	0.001	
Benzo(b/c)fluorenes		U	0.003	0.001	
2-Methylpyrene		U	0.003	0.001	
4-Methylpyrene		U	0.003	0.001	
1-Methylpyrene		U	0.003	0.001	
Heptadecane	0.003		0.003	0.001	
Pristane	0.001	J	0.003	0.001	
Octadecane	0.002	J	0.003	0.001	
Phytane		U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SB		
File ID:	E102532.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	
Total PAH (16)	0.003	0.003	0.001	
Total PAH (42)	0.005	0.003	0.001	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	77	50 - 120
Phenanthrene-d10	88	50 - 120
Benzo(a)pyrene-d12	132	50 - 120
Perylene-d12	108	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SBS		
File ID:	E102533.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)			RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount					% Recovery
Benzene	2.5	1.33	B	0.003	0.001	53
Toluene	2.5	1.74	B	0.003	0.001	70
Ethylbenzene	2.5	1.62		0.003	0.001	65
m/p-Xylenes	2.5	1.54	B	0.003	0.001	62
Styrene	2.5	1.69	B	0.003	0.001	68
o-Xylene	2.5	1.64		0.003	0.001	66
Isopropylbenzene	2.5	1.65		0.003	0.001	66
n-Propylbenzene	2.5	1.72		0.003	0.001	69
1,3,5-Trimethylbenzene	2.5	1.62		0.003	0.001	65
1,2,4-Trimethylbenzene	2.5	1.58		0.003	0.001	63
t-Butylbenzene			U	0.003	0.001	
sec-Butylbenzene	2.5	1.67		0.003	0.001	67
p-Isopropyltoluene	2.5	1.77		0.003	0.001	71
n-Butylbenzene	2.5	1.73		0.003	0.001	69
C1 - Benzene			BU	0.003	0.001	
C2 - Benzene			BU	0.003	0.001	
C3 - Benzene			BU	0.003	0.001	
C4 - Benzene			U	0.003	0.001	
C5 - Benzene			U	0.003	0.001	
trans-Decalin			U	0.003	0.001	
cis-Decalin			U	0.003	0.001	
Naphthalene	2.5	1.8		0.003	0.001	72
2-Methylnaphthalene	2.5	1.8		0.003	0.001	72
1-Methylnaphthalene	2.5	1.8		0.003	0.001	72
C1 - Naphthalene			U	0.003	0.001	
C2 - Naphthalene			BU	0.003	0.001	
C3 - Naphthalene			U	0.003	0.001	
C4 - Naphthalene			U	0.003	0.001	
Acenaphthylene	2.5	1.94	B	0.003	0.001	78
Acenaphthene	2.5	1.86		0.003	0.001	74
Dibenzofuran	2.5	1.8		0.003	0.001	72
Fluorene	2.5	1.85		0.003	0.001	74
C1 - Fluorene			U	0.003	0.001	
C2 - Fluorene			U	0.003	0.001	
C3 - Fluorene			U	0.003	0.001	
Phenanthrene	2.5	1.86		0.003	0.001	74
Anthracene	2.5	1.79		0.003	0.001	72

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SBS		
File ID:	E102533.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		U	0.003	0.001	
C2 - Phenanthrene/Anthracene		U	0.003	0.001	
C3 - Phenanthrene/Anthracene		U	0.003	0.001	
C4 - Phenanthrene/Anthracene		U	0.003	0.001	
Dibenzothiophene	2.5	1.83	0.003	0.001	73
C1 - Dibenzothiophene		U	0.003	0.001	
C2 - Dibenzothiophene		U	0.003	0.001	
C3 - Dibenzothiophene		U	0.003	0.001	
C4 - Dibenzothiophene		U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene		U	0.003	0.001	
Fluoranthene	2.5	1.92	0.003	0.001	77
Pyrene	2.5	1.94	0.003	0.001	78
C1 - Fluoranthene/Pyrene		U	0.003	0.001	
C2 - Fluoranthene/Pyrene		U	0.003	0.001	
C3 - Fluoranthene/Pyrene		U	0.003	0.001	
Benz(a)anthracene	2.5	1.99	0.003	0.001	80
Chrysene*	2.5	2.02	0.003	0.001	81
C1 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
Benzo(b)fluoranthene	2.5	2.03	0.003	0.001	81
Benzo(j/k)fluoranthene	2.5	2.06	0.003	0.001	82
Benzo(e)pyrene	2.5	2.0	0.003	0.001	80
Benzo(a)pyrene	2.5	2.0	0.003	0.001	80
Perylene		U	0.003	0.001	
Indeno(1,2,3-cd)pyrene	2.5	2.09	0.003	0.001	84
Dibenz(a,h)anthracene	2.5	2.22	0.003	0.001	89
Benzo(g,h,i)perylene	2.5	2.11	0.003	0.001	84
Coronene		U	0.003	0.001	
Retene		U	0.003	0.001	
Benzo(b/c)fluorenes		U	0.003	0.001	
2-Methylpyrene		U	0.003	0.001	
4-Methylpyrene		U	0.003	0.001	
1-Methylpyrene		U	0.003	0.001	
Heptadecane		BU	0.003	0.001	
Pristane		BU	0.003	0.001	
Octadecane		BU	0.003	0.001	
Phytane		U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC101022-SBS		
File ID:	E102533.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	10/22/2010	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	10/27/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
2,6,10-trimethyldodecane		U	0.003	0.001	
2,6,10-trimethyltridecane		U	0.003	0.001	
Norpristane		U	0.003	0.001	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	74	50 - 120
Phenanthrene-d10	90	50 - 120
Benzo(a)pyrene-d12	128	50 - 120
Perylene-d12	105	50 - 120

NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03DUP		
File ID:	E102552.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.09
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:					RPD
Benzene	0.024	B	0.003	0.002	13.3
Toluene	0.023	B	0.003	0.002	24.4
Ethylbenzene	0.003	J	0.003	0.002	50
m/p-Xylenes	0.066	B	0.003	0.002	66.7
Styrene	0.008	B	0.003	0.002	22.2
o-Xylene	0.004		0.003	0.002	40
Isopropylbenzene		U	0.003	0.002	NA
n-Propylbenzene	0.002	J	0.003	0.002	NA
1,3,5-Trimethylbenzene		U	0.003	0.002	NA
1,2,4-Trimethylbenzene		U	0.003	0.002	NA
t-Butylbenzene		U	0.003	0.002	NA
sec-Butylbenzene		U	0.003	0.002	NA
p-Isopropyltoluene	0.004		0.003	0.002	28.6
n-Butylbenzene	0.010		0.003	0.002	66.7
C1 - Benzene	0.016	B	0.003	0.002	28.6
C2 - Benzene	0.065	B	0.003	0.002	57.4
C3 - Benzene	0.012	B	0.003	0.002	22.2
C4 - Benzene	0.022		0.003	0.002	25.6
C5 - Benzene	0.026		0.003	0.002	8
trans-Decalin		U	0.003	0.002	NA
cis-Decalin	0.032		0.003	0.002	145.9
Naphthalene	0.006		0.003	0.002	50
2-Methylnaphthalene	0.006		0.003	0.002	40
1-Methylnaphthalene	0.004		0.003	0.002	22.2
C1 - Naphthalene	0.007		0.003	0.002	25
C2 - Naphthalene	0.013	B	0.003	0.002	20.7
C3 - Naphthalene	0.009		0.003	0.002	71.4
C4 - Naphthalene	0.010		0.003	0.002	46.2
Acenaphthylene	0.027	B	0.003	0.002	63.3
Acenaphthene	0.006		0.003	0.002	28.6
Dibenzofuran		U	0.003	0.002	NA
Fluorene	0.006		0.003	0.002	15.4
C1 - Fluorene	0.007		0.003	0.002	44.4
C2 - Fluorene	0.011		0.003	0.002	30.8
C3 - Fluorene	0.025		0.003	0.002	11.3
Phenanthrene	0.088		0.003	0.002	2.2
Anthracene	0.018		0.003	0.002	40

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03DUP		
File ID:	E102552.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.09
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.036	0.003	0.002	32.6
C2 - Phenanthrene/Anthracene	0.027	0.003	0.002	50
C3 - Phenanthrene/Anthracene	0.027	0.003	0.002	43.5
C4 - Phenanthrene/Anthracene	0.027	0.003	0.002	23
Dibenzothiophene	0.010	0.003	0.002	66.7
C1 - Dibenzothiophene	0.009	0.003	0.002	25
C2 - Dibenzothiophene	0.019	0.003	0.002	10
C3 - Dibenzothiophene	0.025	0.003	0.002	46.2
C4 - Dibenzothiophene	0.030	0.003	0.002	15.4
Benzo(b)naphtho(2,1-d)thiophene	0.023	0.003	0.002	4.4
Fluoranthene	0.189	0.003	0.002	15.2
Pyrene	0.167	0.003	0.002	13.4
C1 - Fluoranthene/Pyrene	0.080	0.003	0.002	32.5
C2 - Fluoranthene/Pyrene	0.103	0.003	0.002	12.4
C3 - Fluoranthene/Pyrene	0.090	0.003	0.002	22.2
Benz(a)anthracene	0.071	0.003	0.002	25.8
Chrysene*	0.127	0.003	0.002	12.5
C1 - Benz(a)anthracene/Chrysene	0.068	0.003	0.002	7.1
C2 - Benz(a)anthracene/Chrysene	0.081	0.003	0.002	13.2
C3 - Benz(a)anthracene/Chrysene	0.080	0.003	0.002	25.4
C4 - Benz(a)anthracene/Chrysene	0.051	0.003	0.002	8.2
Benzo(b)fluoranthene	0.105	0.003	0.002	18.2
Benzo(j/k)fluoranthene	0.088	0.003	0.002	28.3
Benzo(e)pyrene	0.100	0.003	0.002	14
Benzo(a)pyrene	0.097	0.003	0.002	29.1
Perylene	0.030	0.003	0.002	20.9
Indeno(1,2,3-cd)pyrene	0.086	0.003	0.002	23.6
Dibenz(a,h)anthracene	0.021	0.003	0.002	21.3
Benzo(g,h,i)perylene	0.098	0.003	0.002	21
Coronene	0.033	0.003	0.002	26.3
Retene	0.016	0.003	0.002	11.8
Benzo(b/c)fluorenes	0.010	0.003	0.002	40
2-Methylpyrene	0.010	0.003	0.002	40
4-Methylpyrene	0.013	0.003	0.002	26.7
1-Methylpyrene	0.008	0.003	0.002	40
Heptadecane	0.032 B	0.003	0.002	29.3
Pristane	0.014 B	0.003	0.002	35.3
Octadecane	0.025 B	0.003	0.002	30.5
Phytane	0.013	0.003	0.002	37.5

Analytical Results for Volatile and Semivolatile Organics
META Environmental, Inc.

Field ID: Duplicate of MRC-SED-1

Client:	Tetra Tech	Preparation Method:	EPA 3570
Project:	MRC Sediments	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	TT101015-03DUP		
File ID:	E102552.D	Matrix:	Sediment
		Preservation:	None
Date Sampled:	10/14/2010	Decanted:	None
Date Received:	10/15/2010		
Date Prepared:	10/22/2010	Sample Size (g):	4.09
Date Cleanup:	NA	Percent Solid:	81.1%
Date Analyzed:	10/28/2010	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC101022-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	0.004	0.003	0.002	54.5
2,6,10-trimethyltridecane	0.010	0.003	0.002	33.3
Norpristane	0.008	0.003	0.002	22.2
Total PAH (16)	1.2	0.003	0.002	20.2
Total PAH (42)	2.17	0.003	0.002	15.7

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	40	50 - 120
Phenanthrene-d10	45	50 - 120
Benzo(a)pyrene-d12	63	50 - 120
Perylene-d12	52	50 - 120

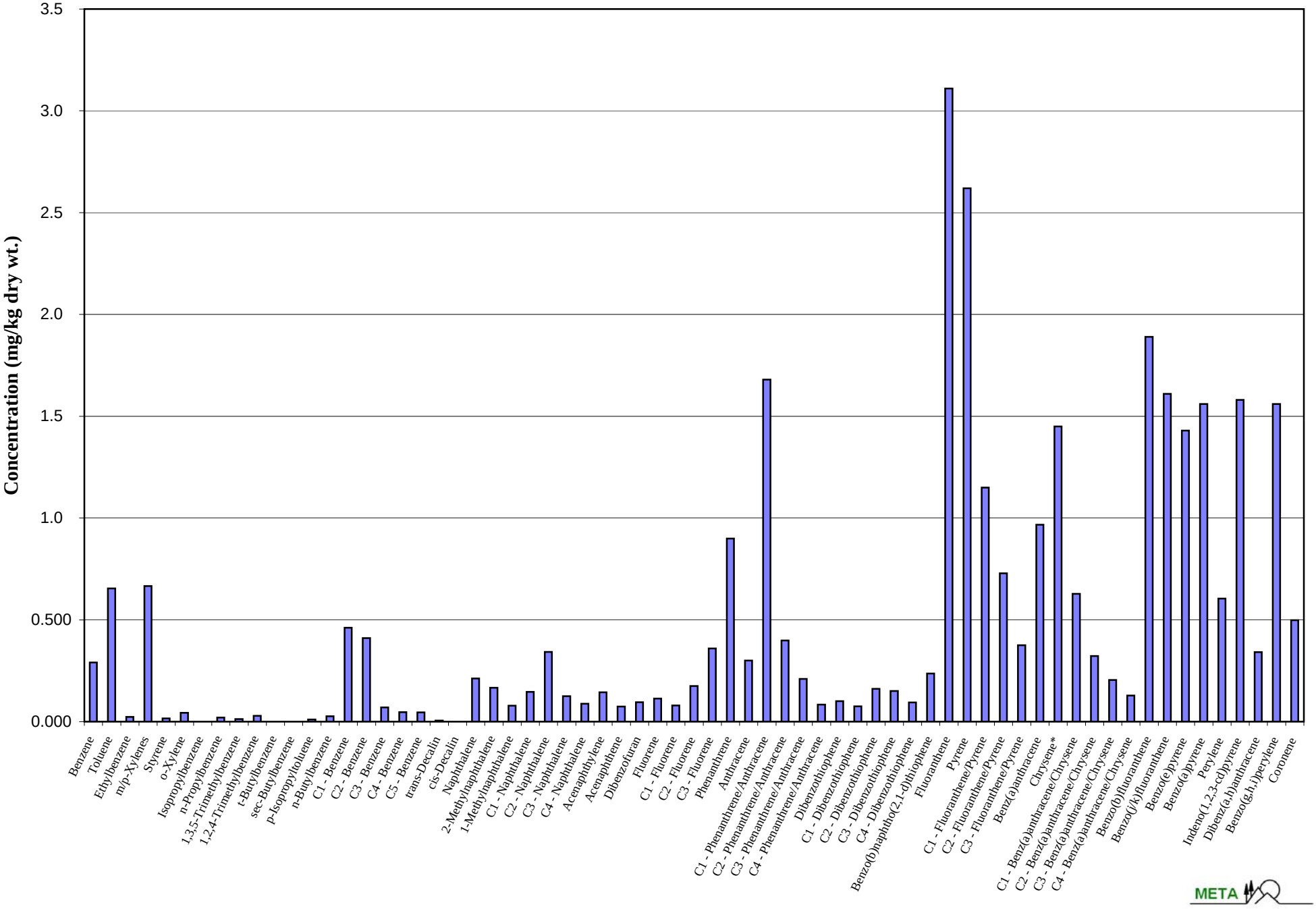
NA - Not applicable.
B - Analyte detected in the Blank.
J - Estimated value; detected between the RL and DL.
U - Analyte not detected above DL.
D - Analyte reported from a diluted extract.
E - Estimate, result detected above calibration range.
I - Concentration/Peak ID uncertain due to potential interference.
RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.
EDL - Estimated detection limit is 50% of RL.
* - Triphenylene is known to coelute with this compound.

Appendix D

Extended MAH/PAH Profiles – Histograms

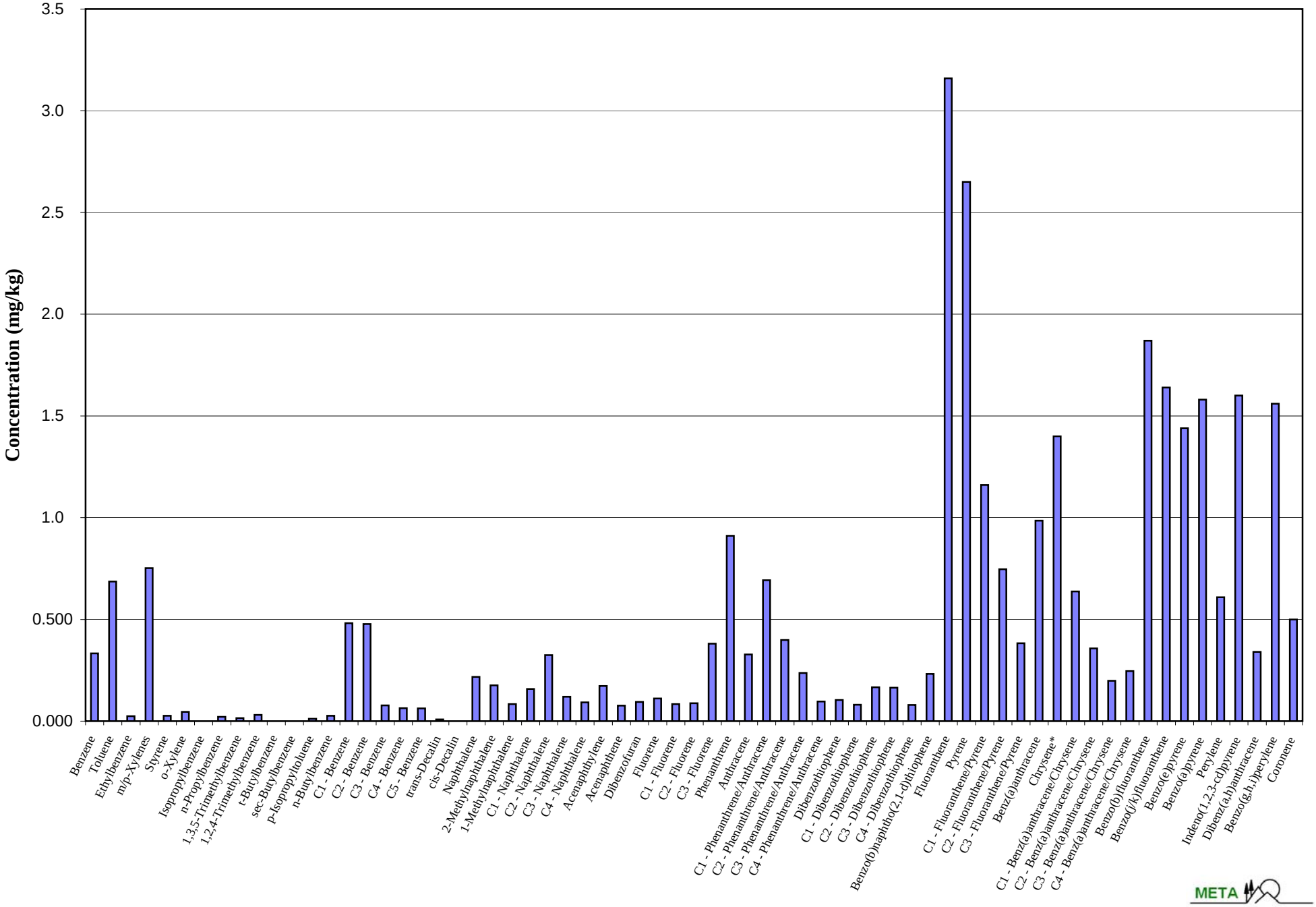
SD-90-SS

TT100819-01



SD-90-SS

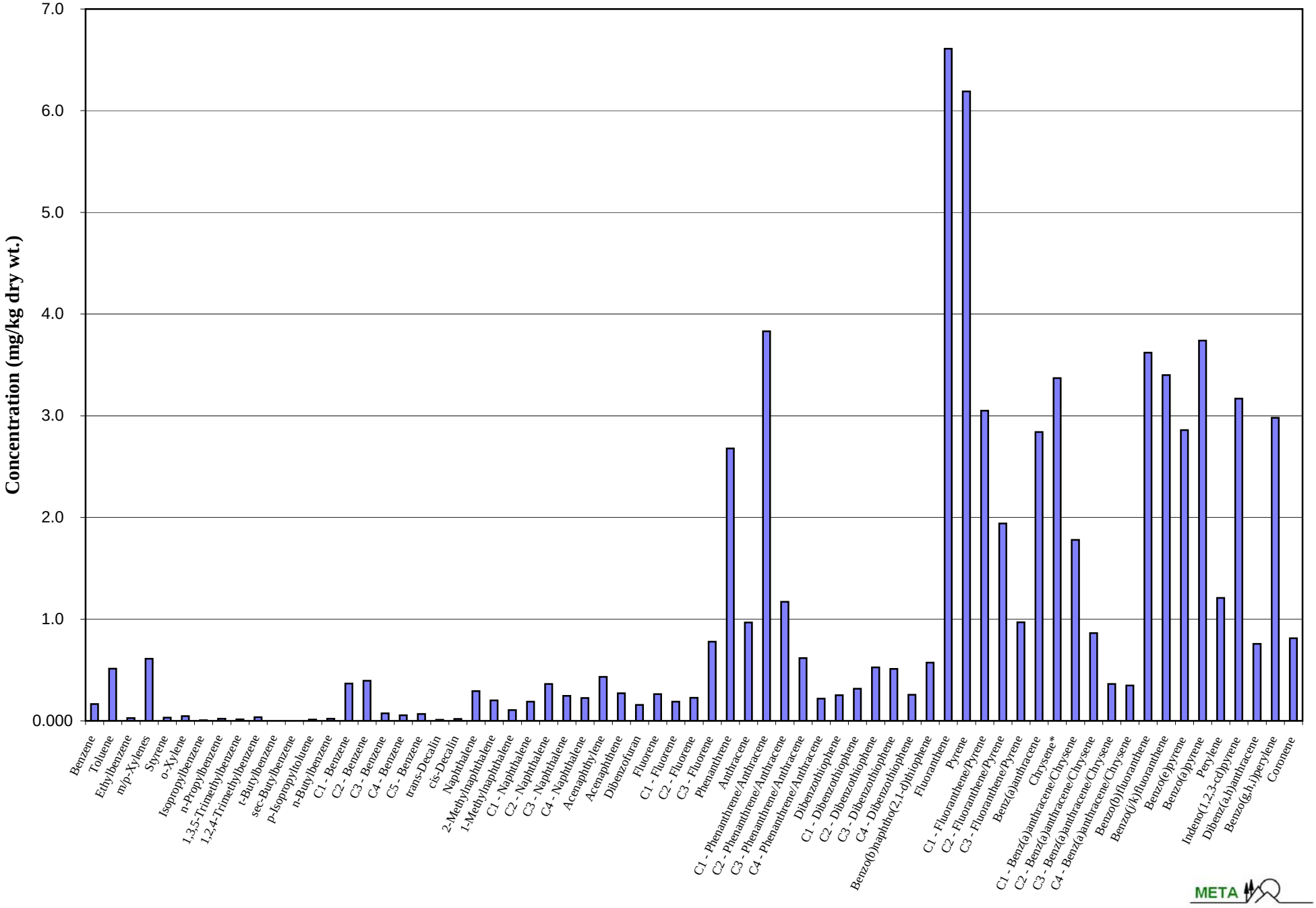
TT100819-01DUP



META

SD-90-01

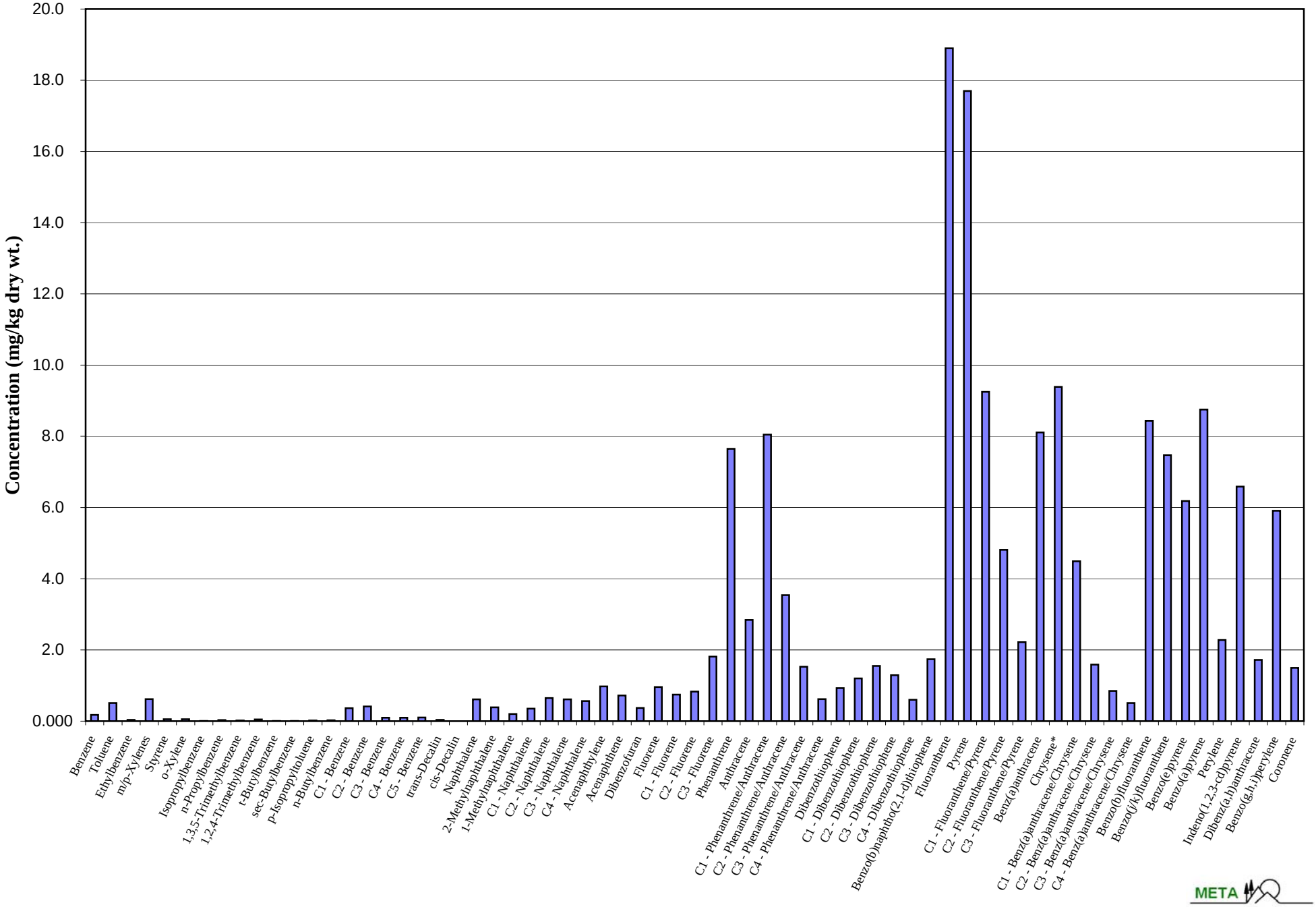
TT100819-02



META

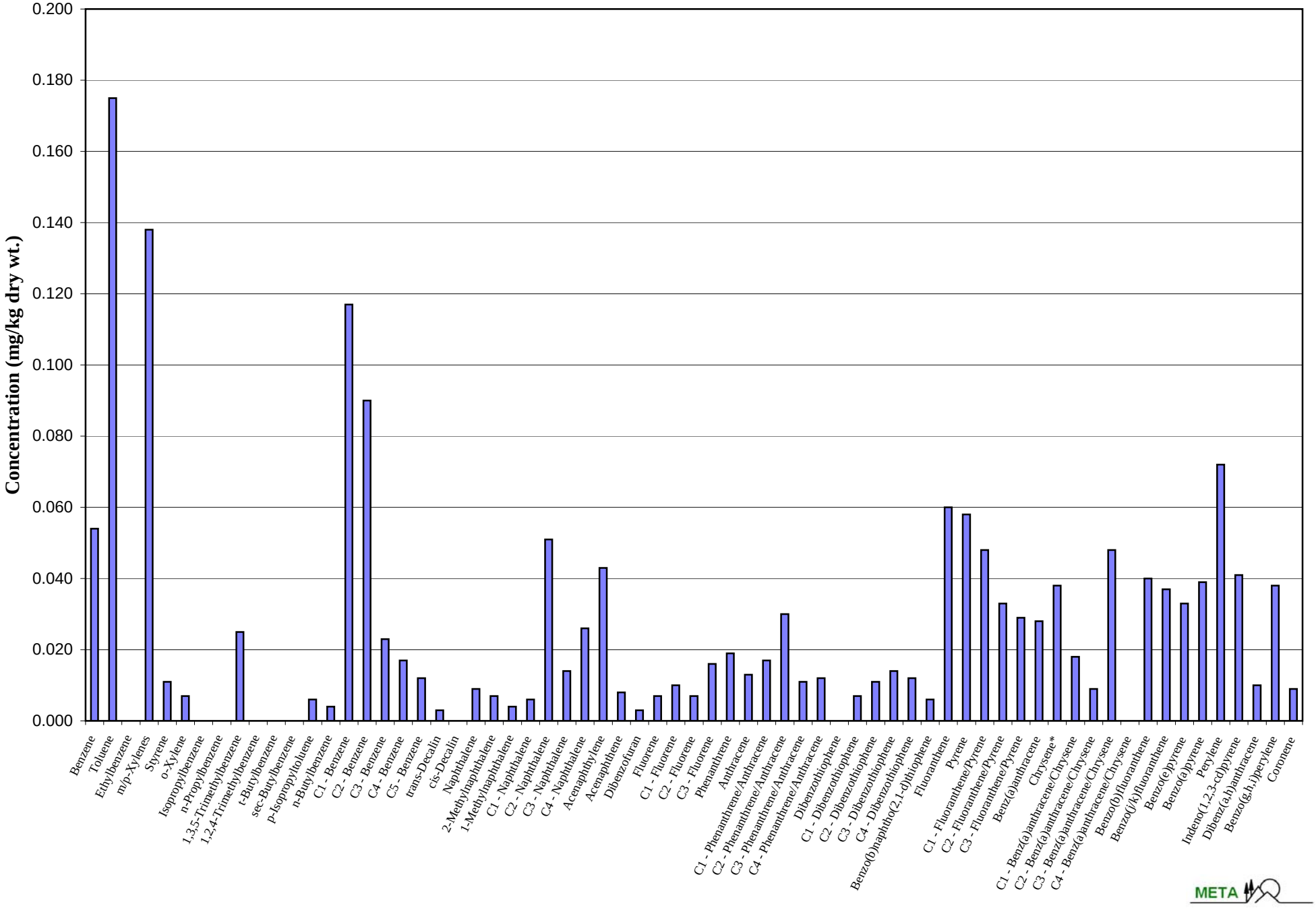
SD-90-02

TT100819-03



SD-94-SS

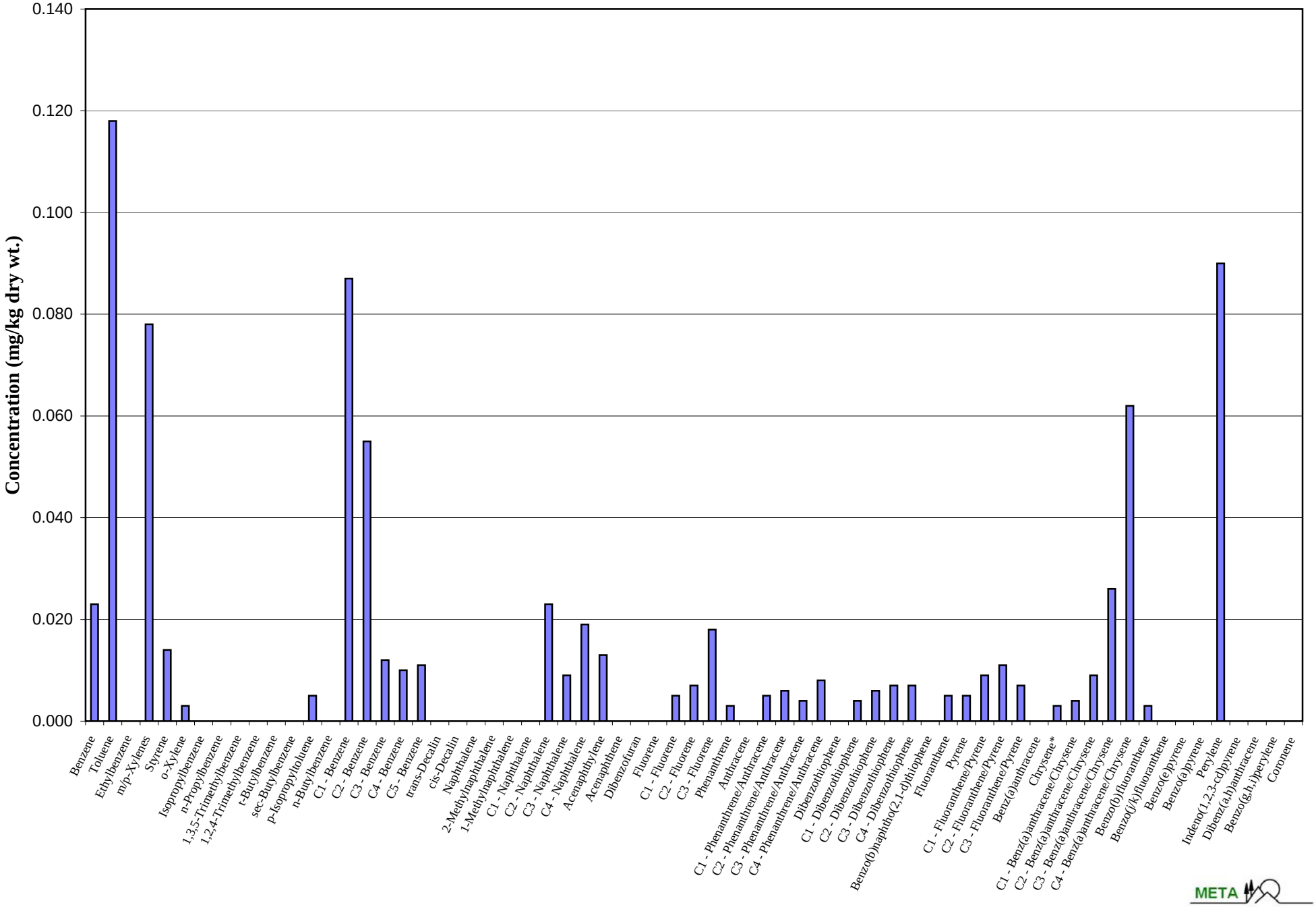
TT100819-04



META

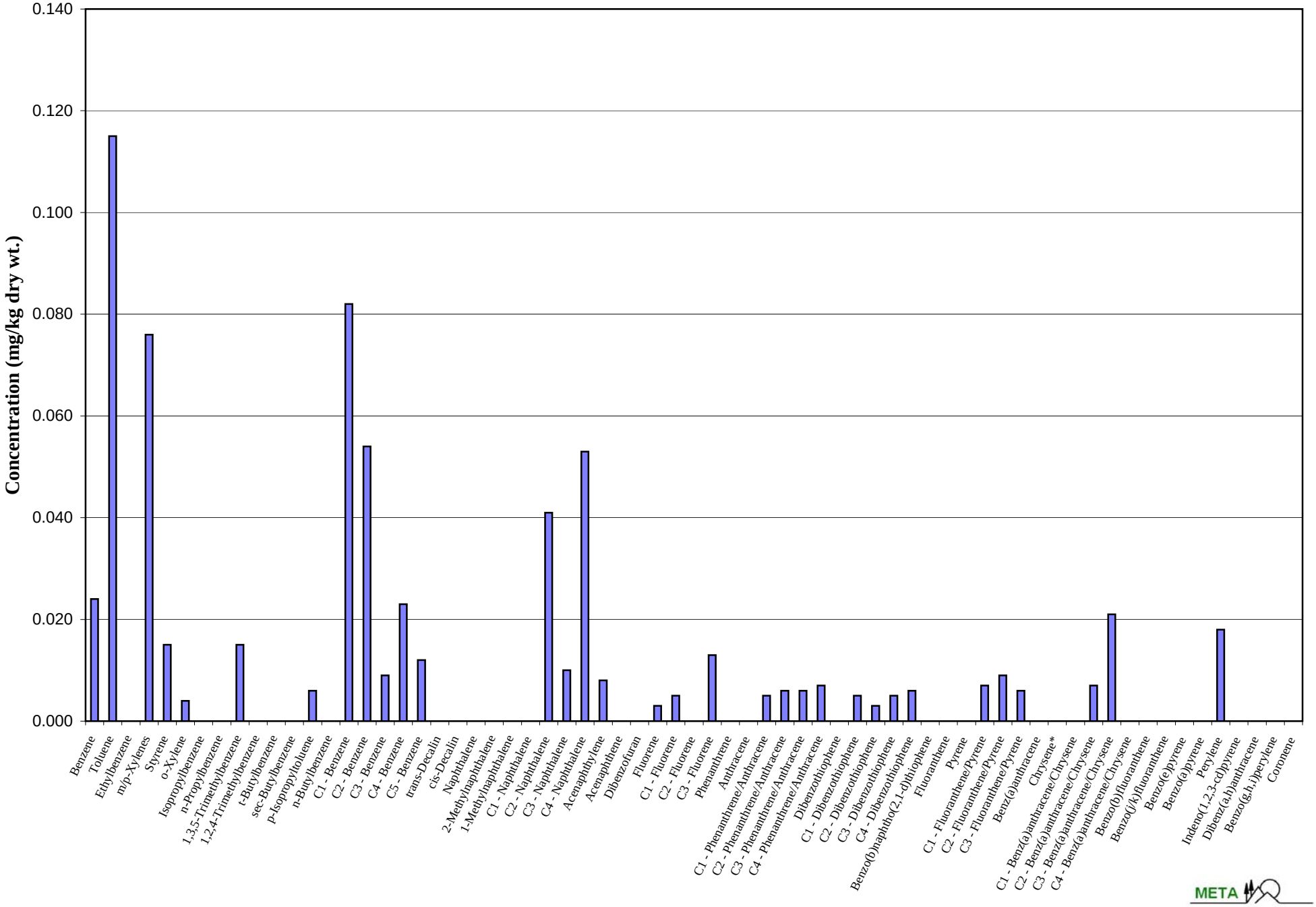
SD-94-01

TT100819-05



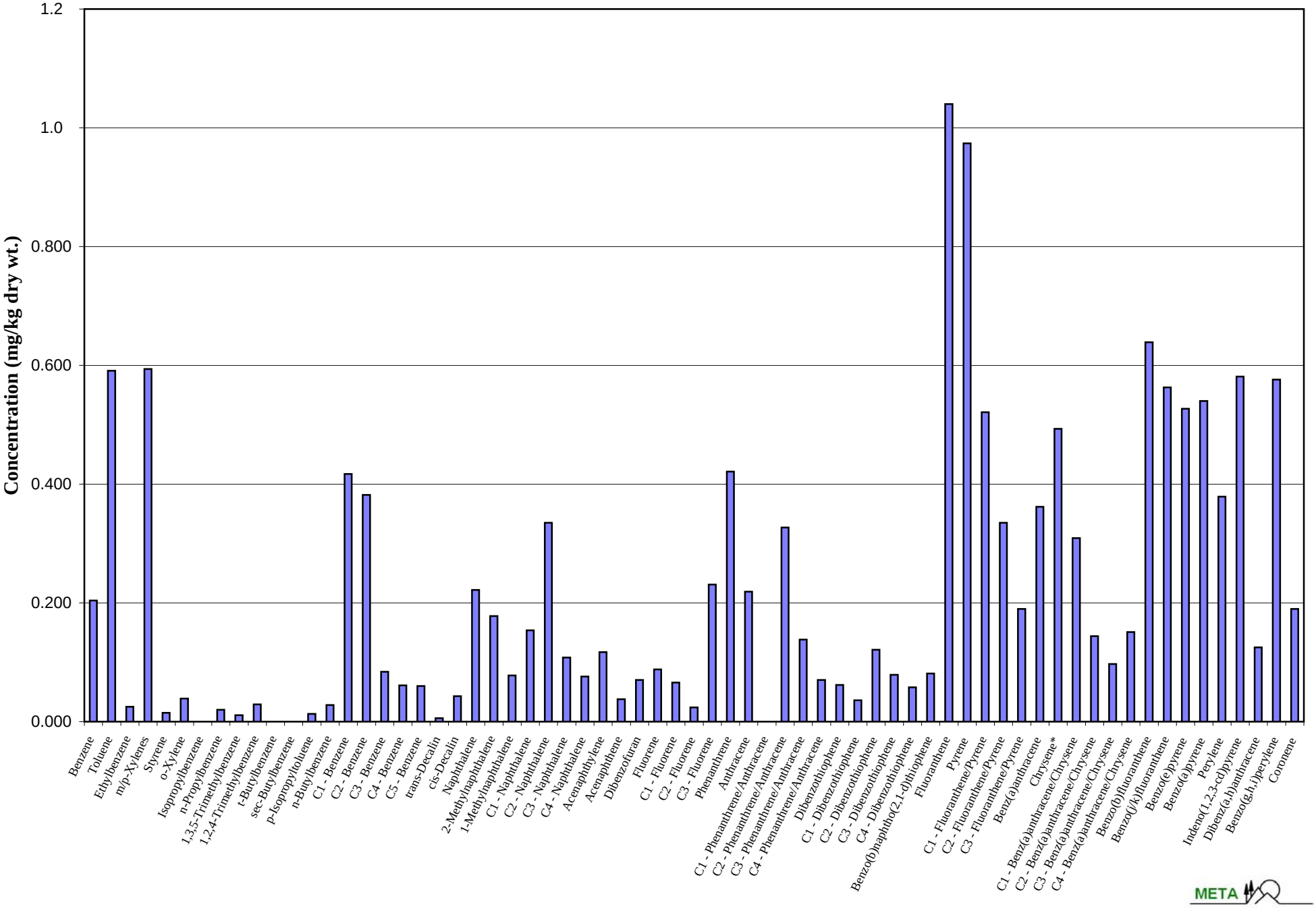
SD-94-02

TT100819-06



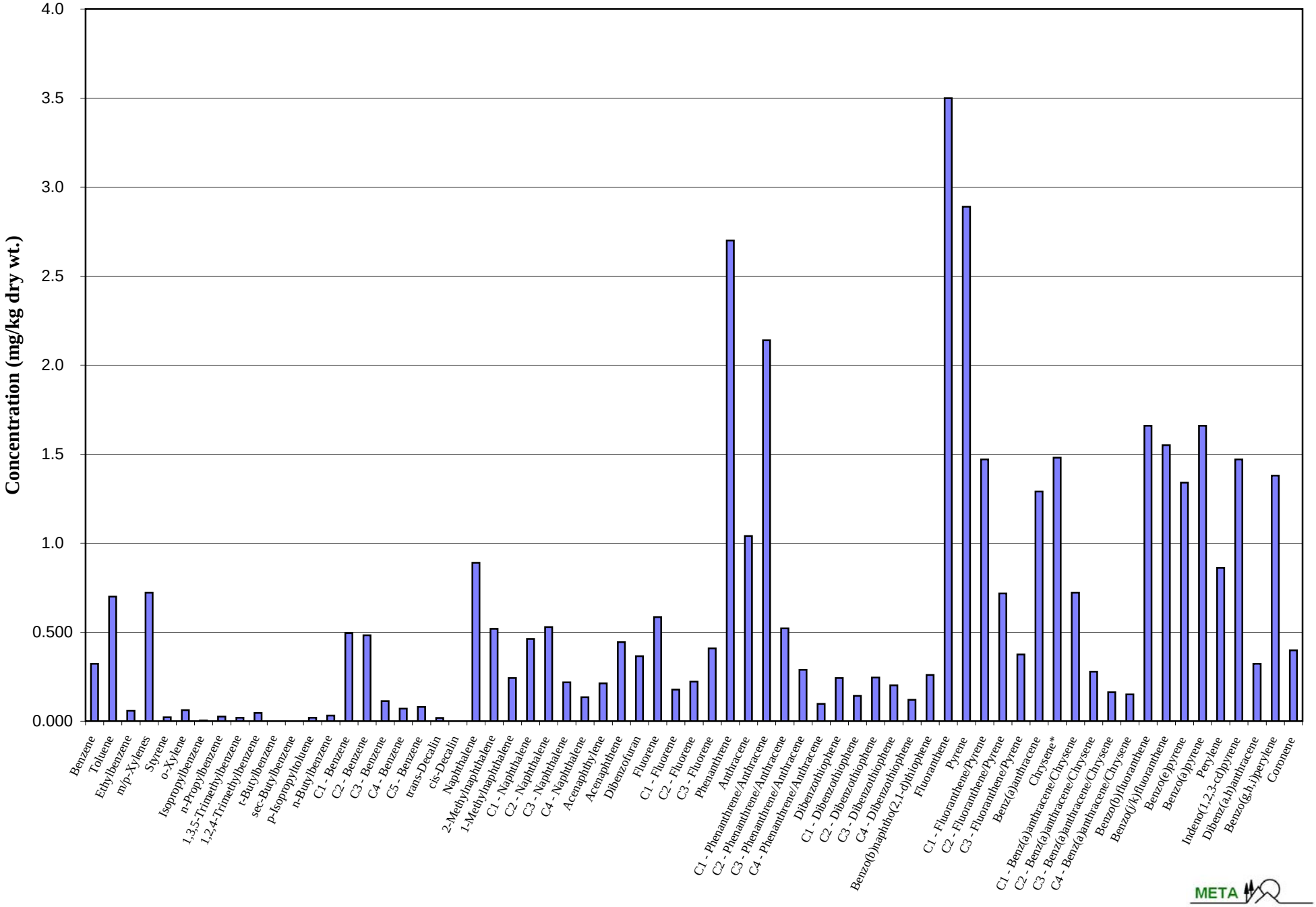
SD-97-SS

TT100819-07



SD-97-01

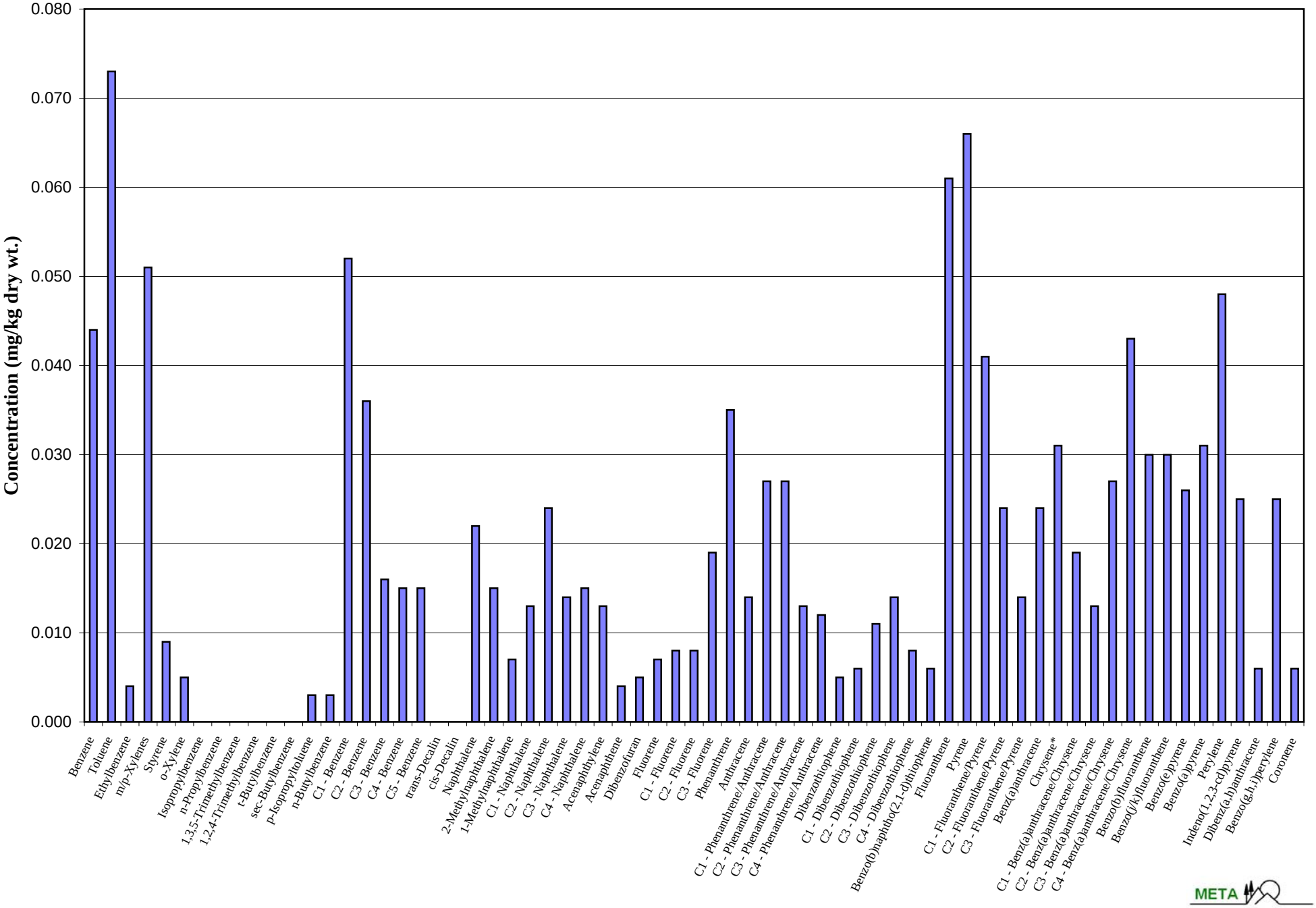
TT100819-08



META

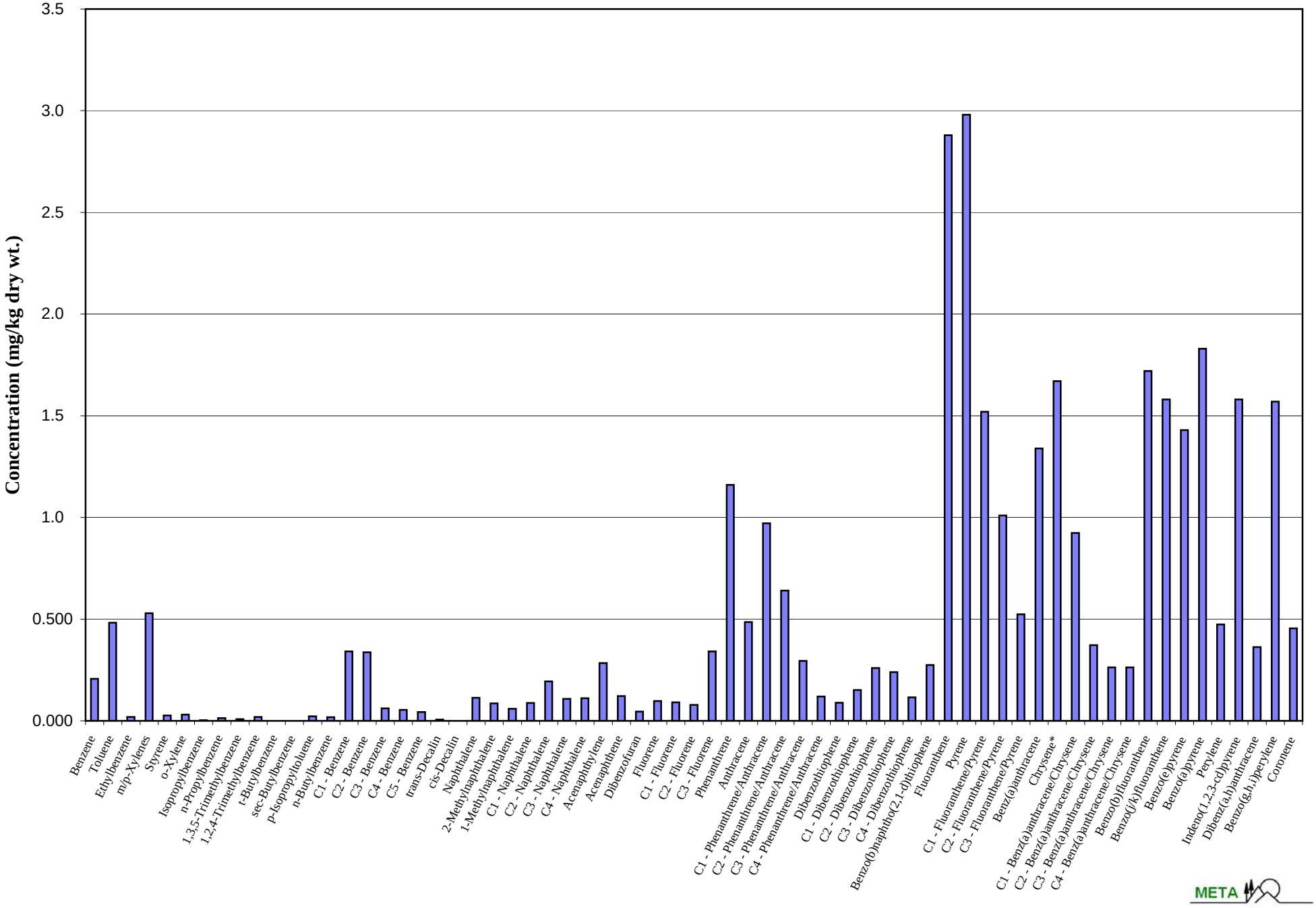
SD-97-02

TT100819-09



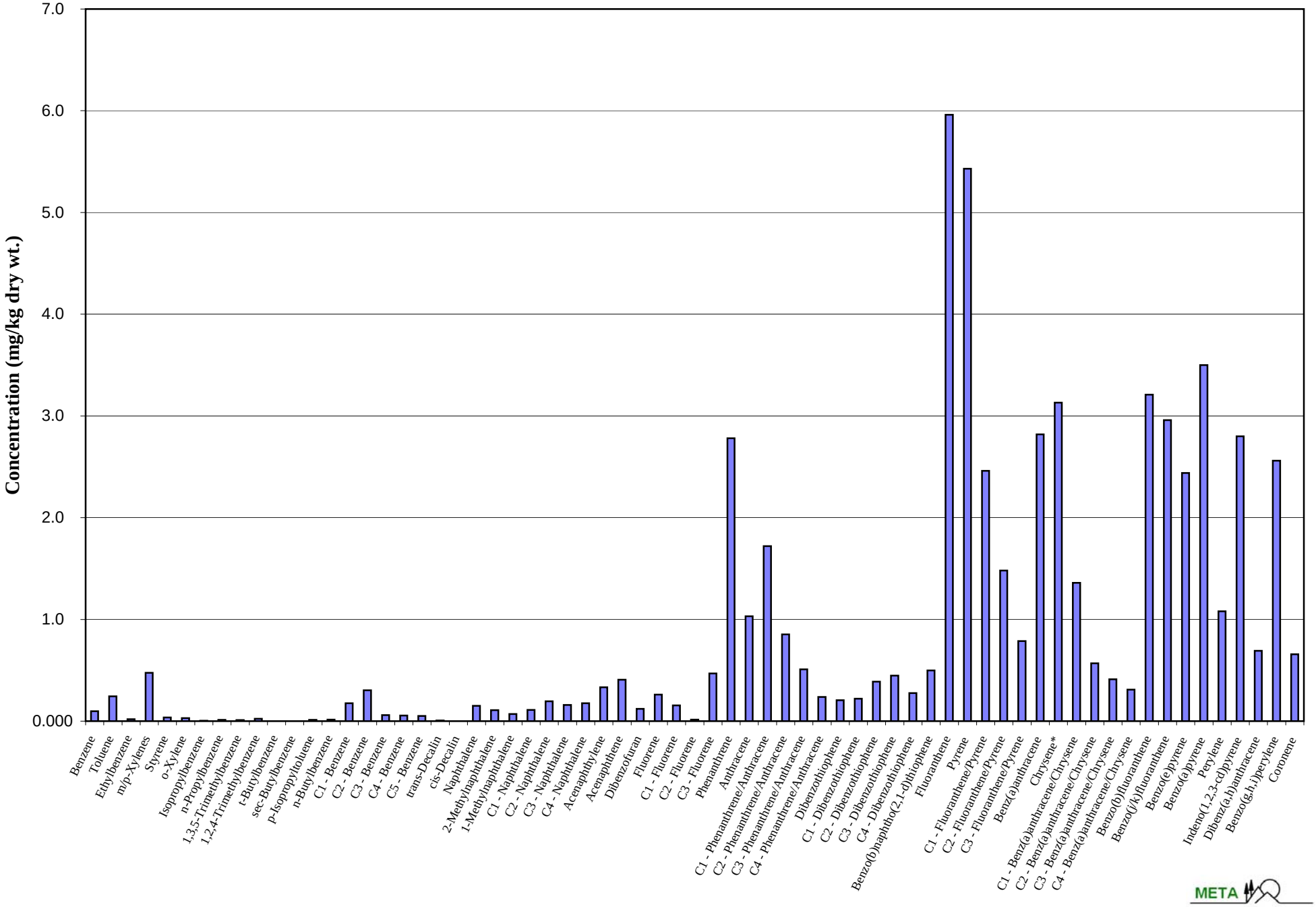
SD-87-SS

TT100819-10



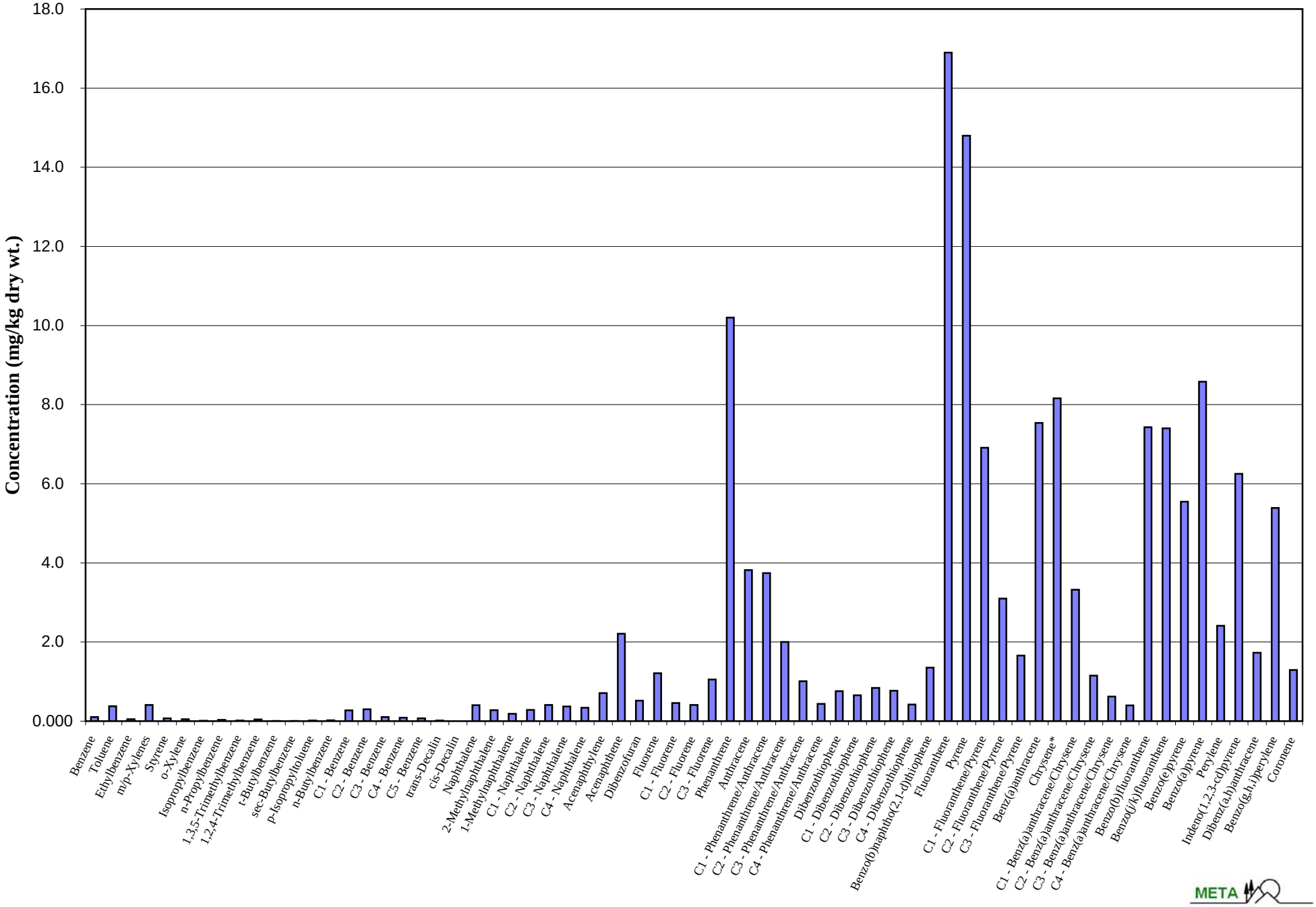
SD-87-01

TT100819-11



SD-87-02

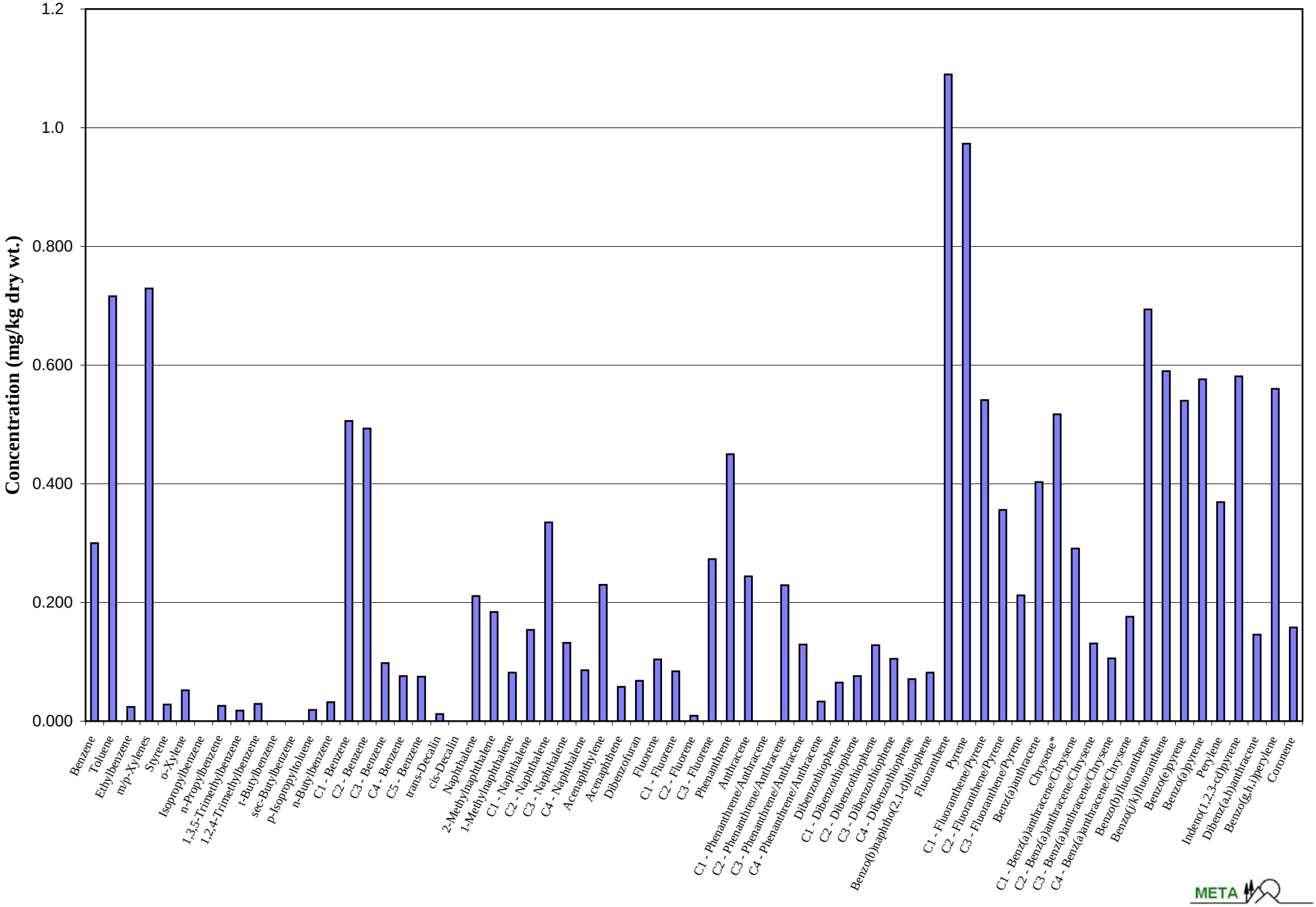
TT100819-12



META

SD-101-SS

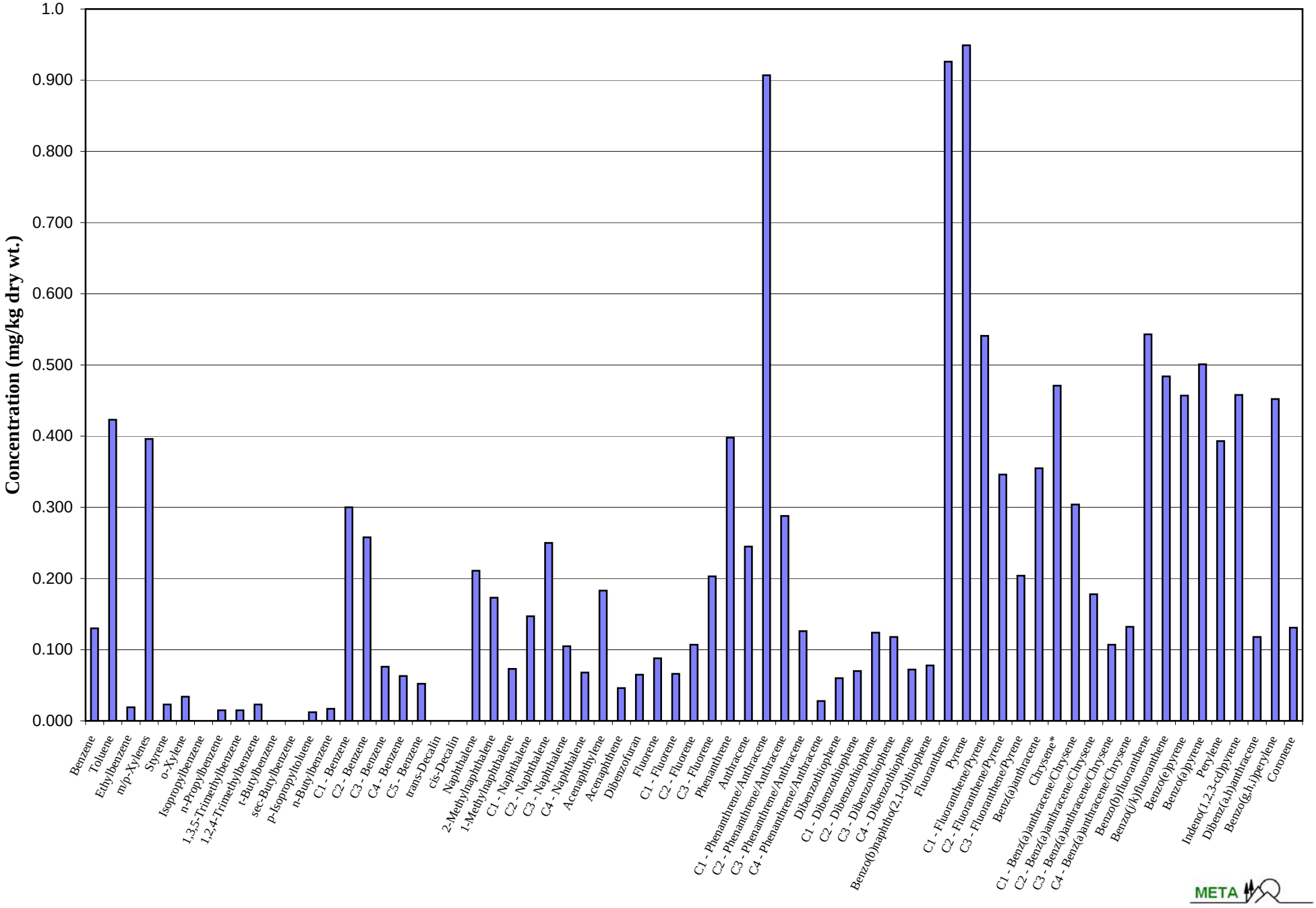
TT100819-13



META

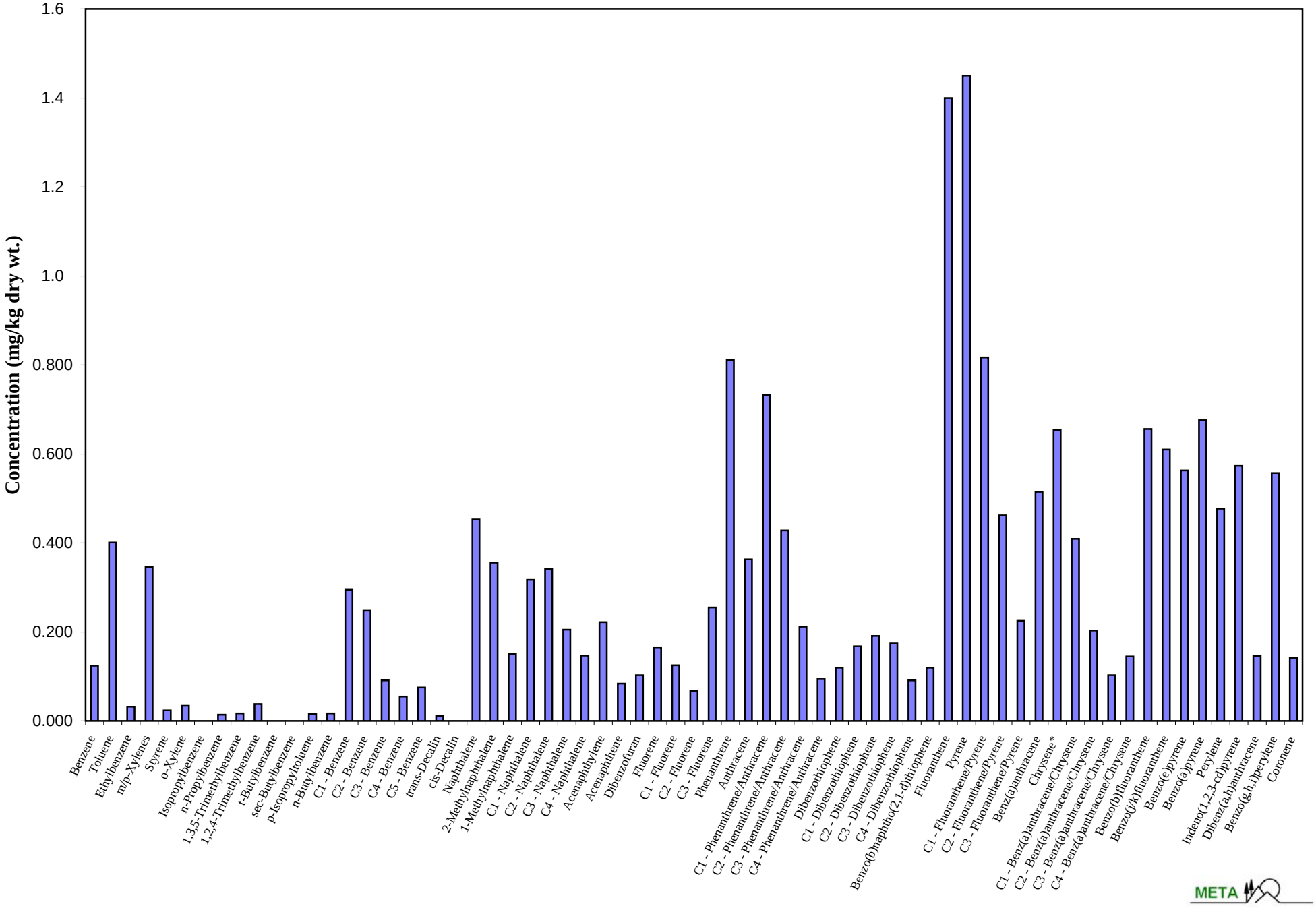
SD-101-01

TT100819-14



SD-101-02

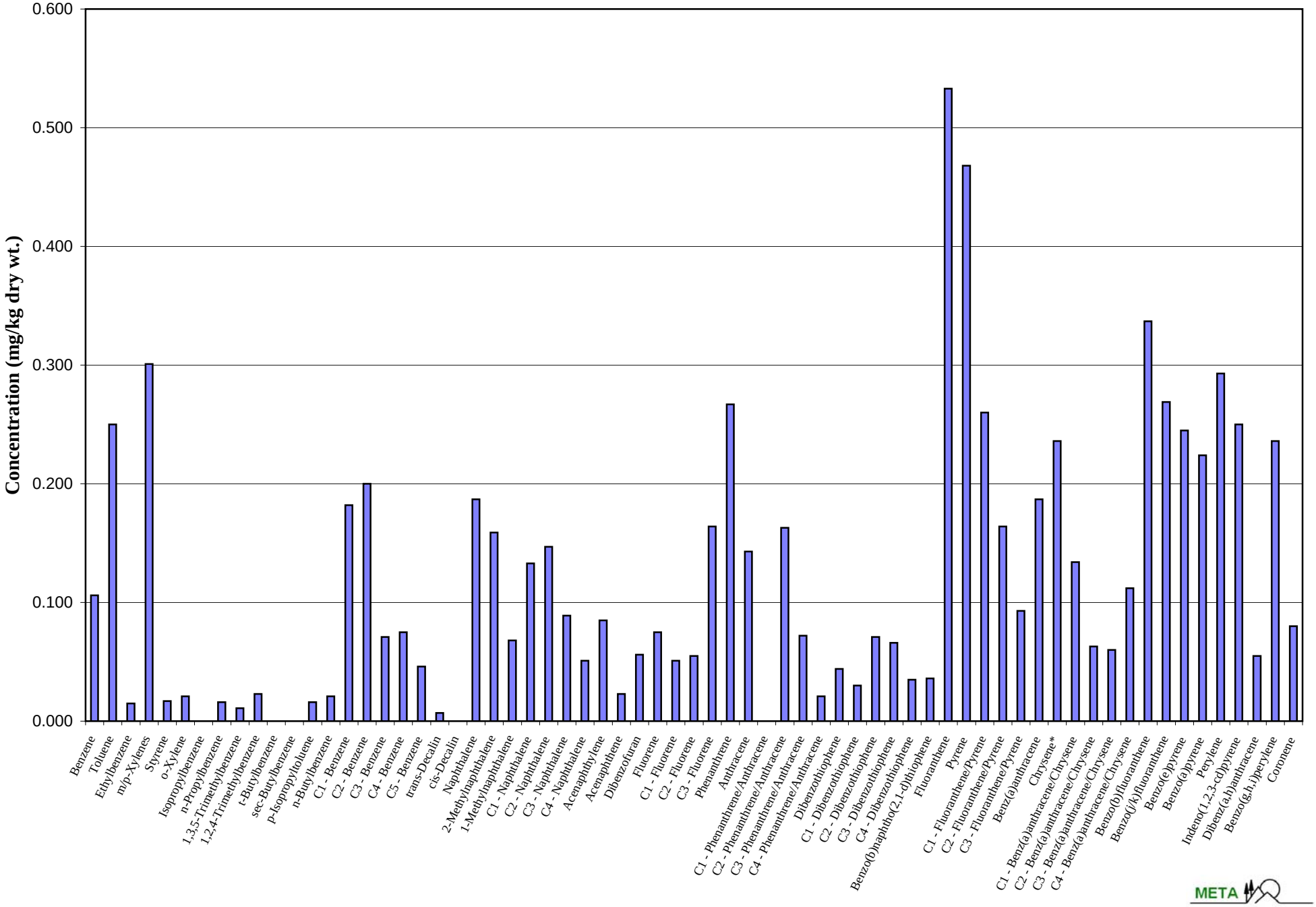
TT100819-15



META

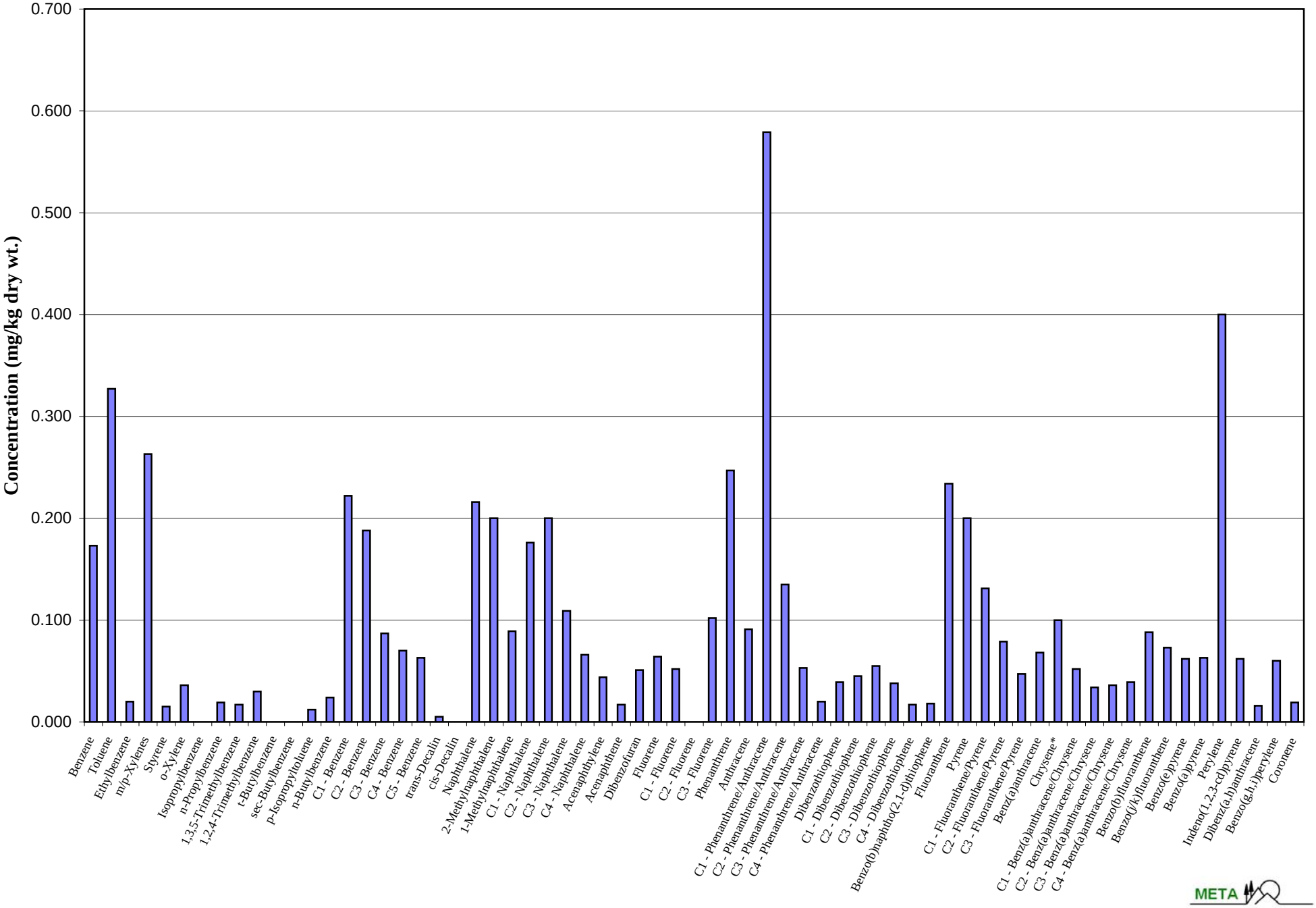
Middle River Downstream - SS

TT100824-01



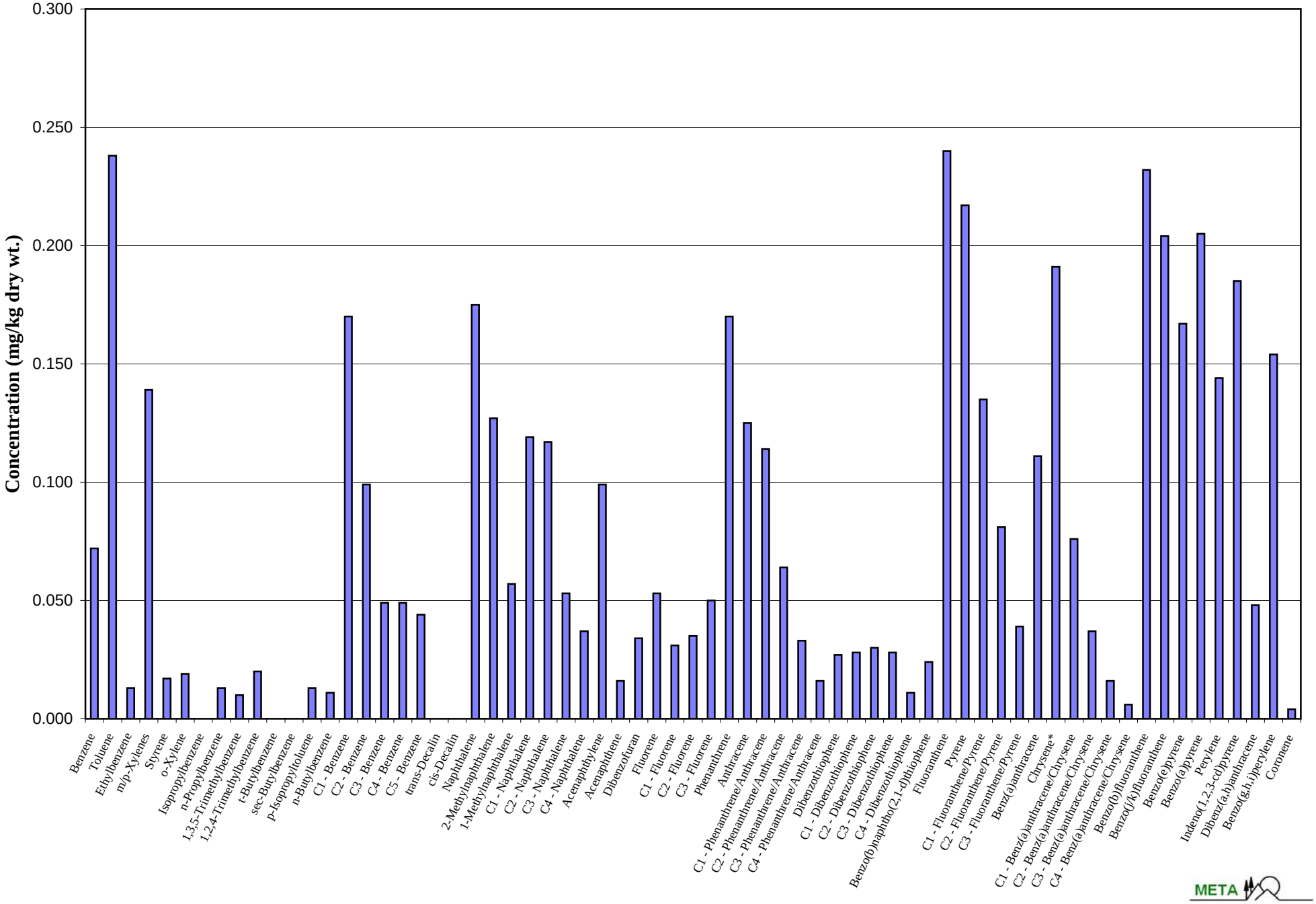
Marshy Point - SS

TT100824-02



Bowley's Quarters - SS

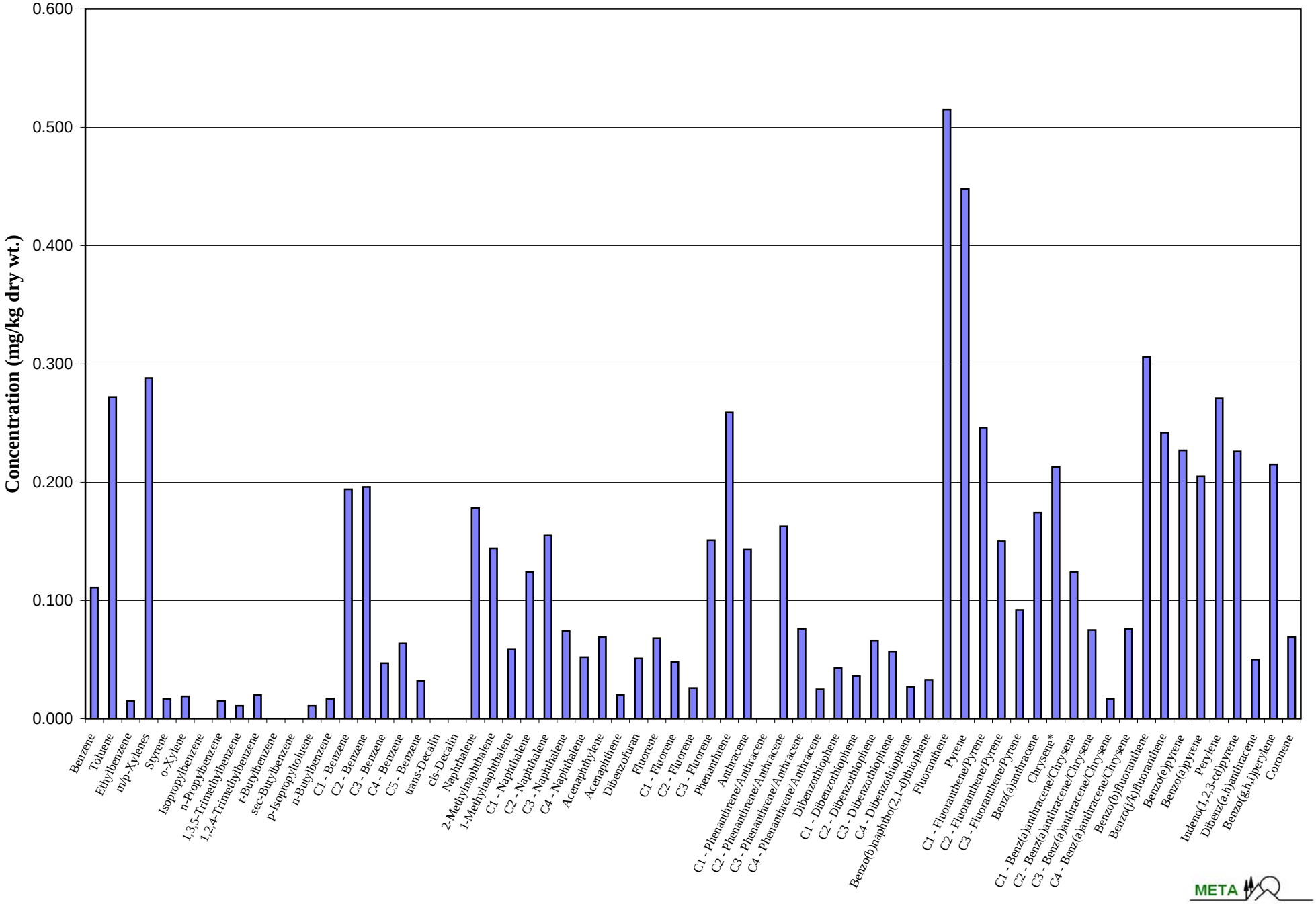
TT100824-03



META

MR-Dup 6 - SS

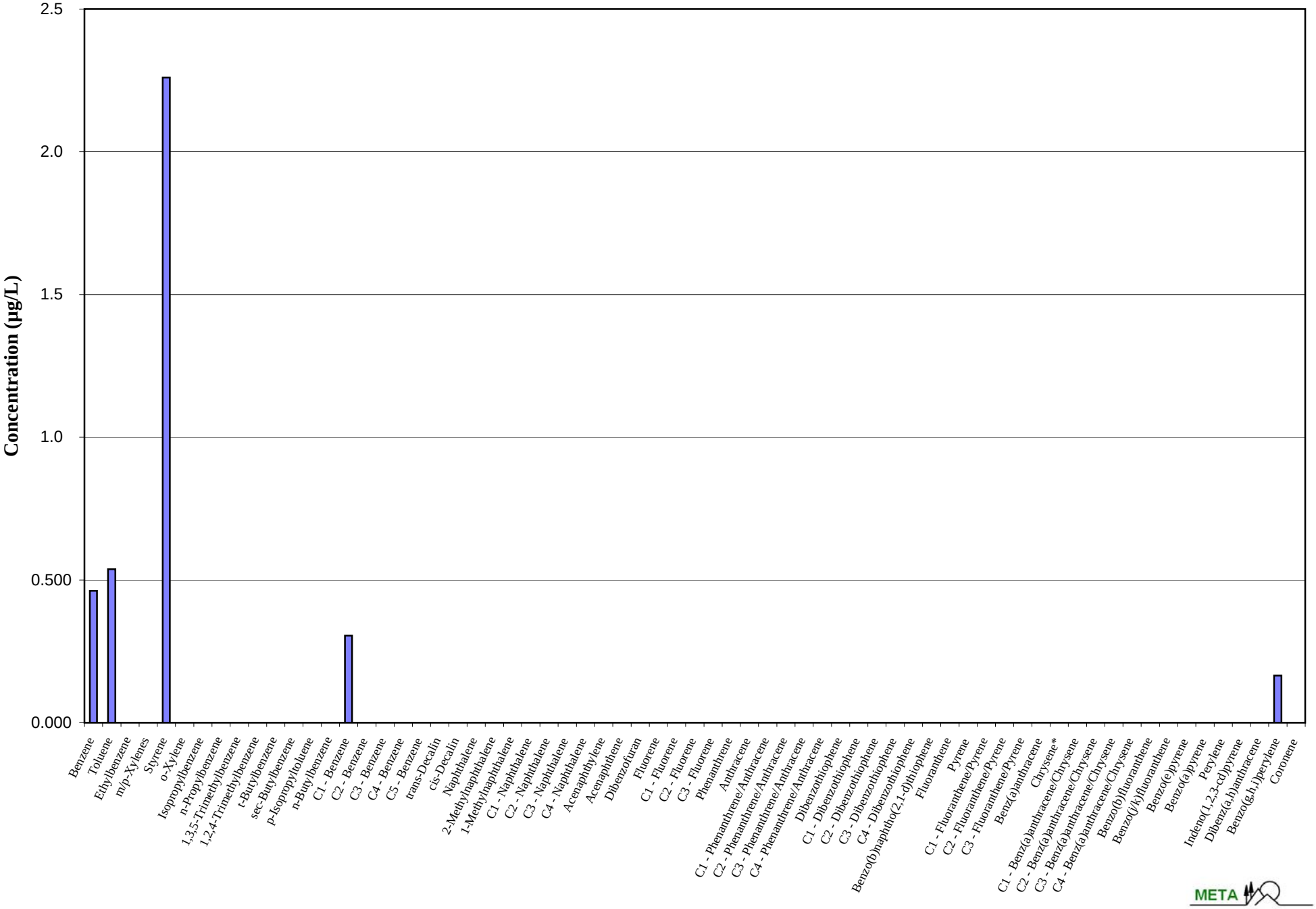
TT100824-04



META

MRC-SW-1

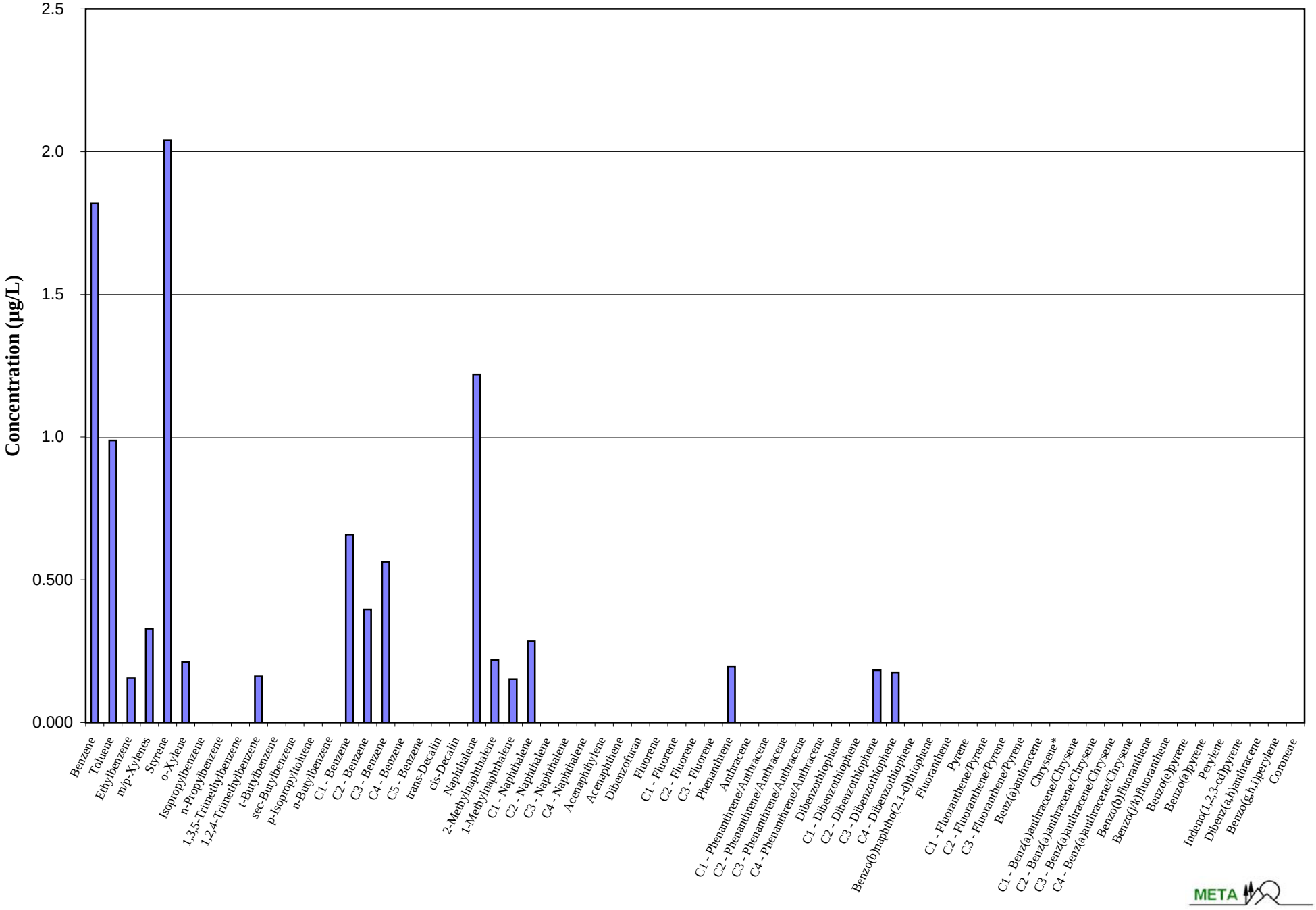
TT101015-01



META

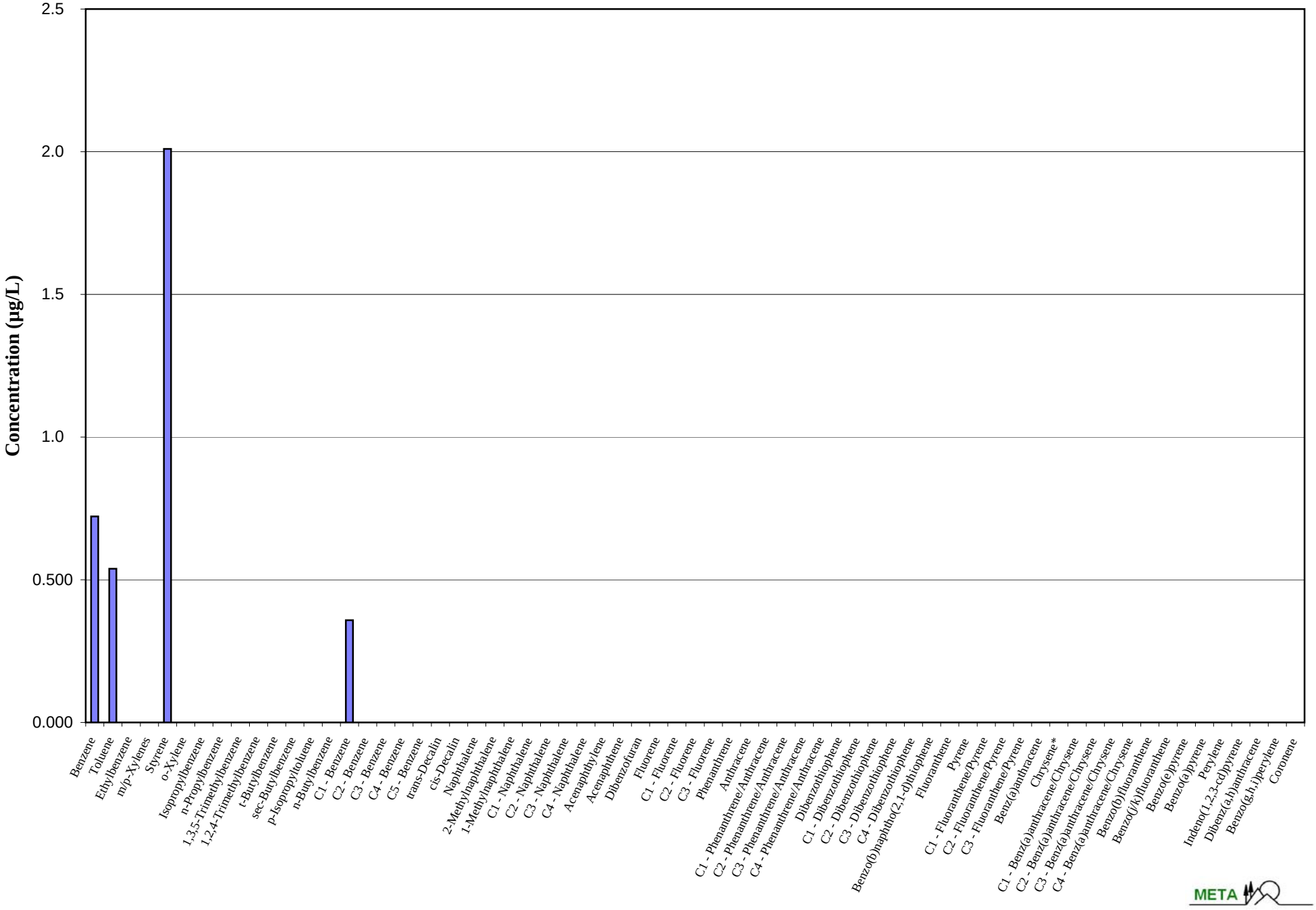
Duplicate of MRC-SW-1

TT101015-01DUP



MSA-SW-1

TT101015-02



MRC-SED-1

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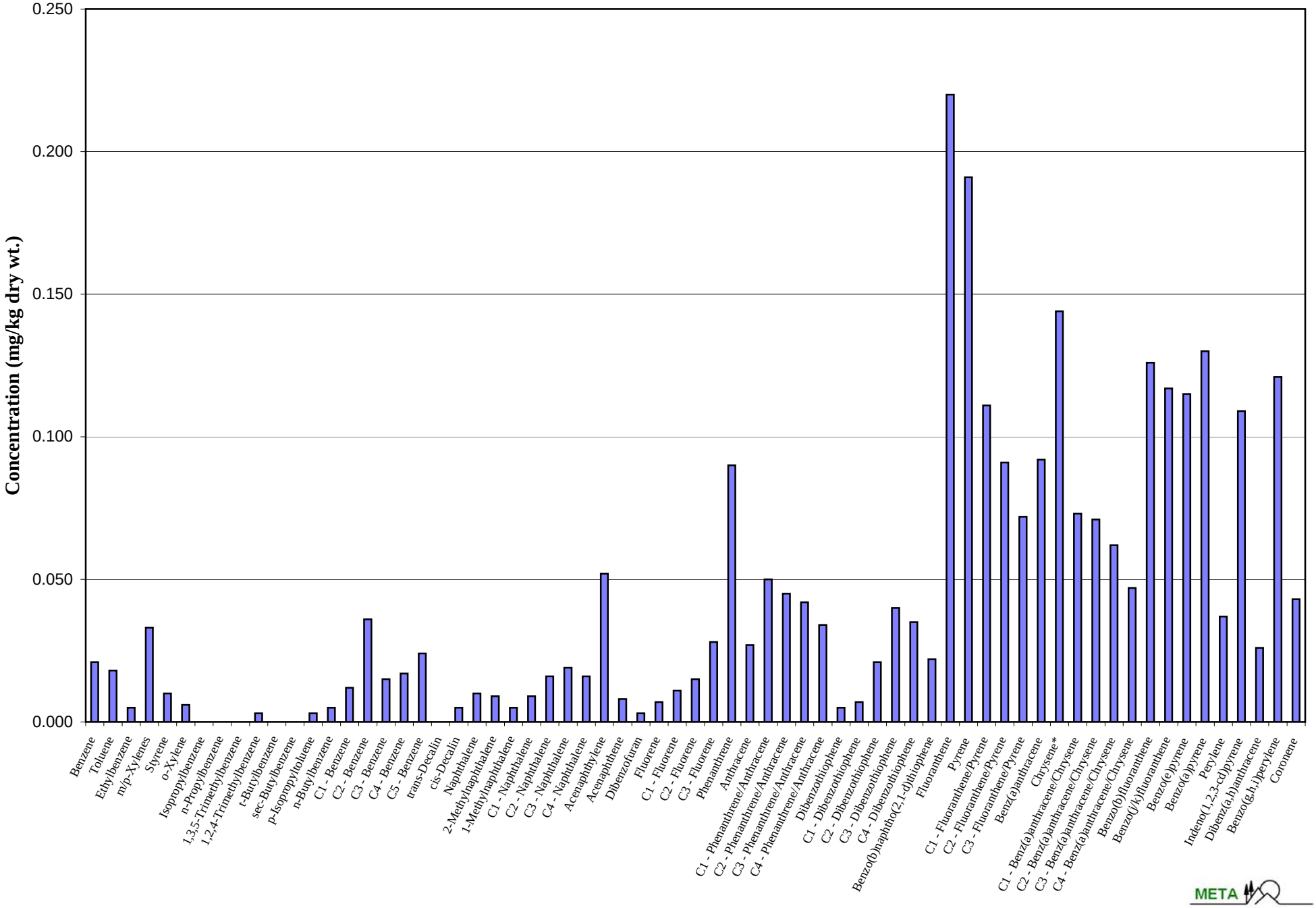

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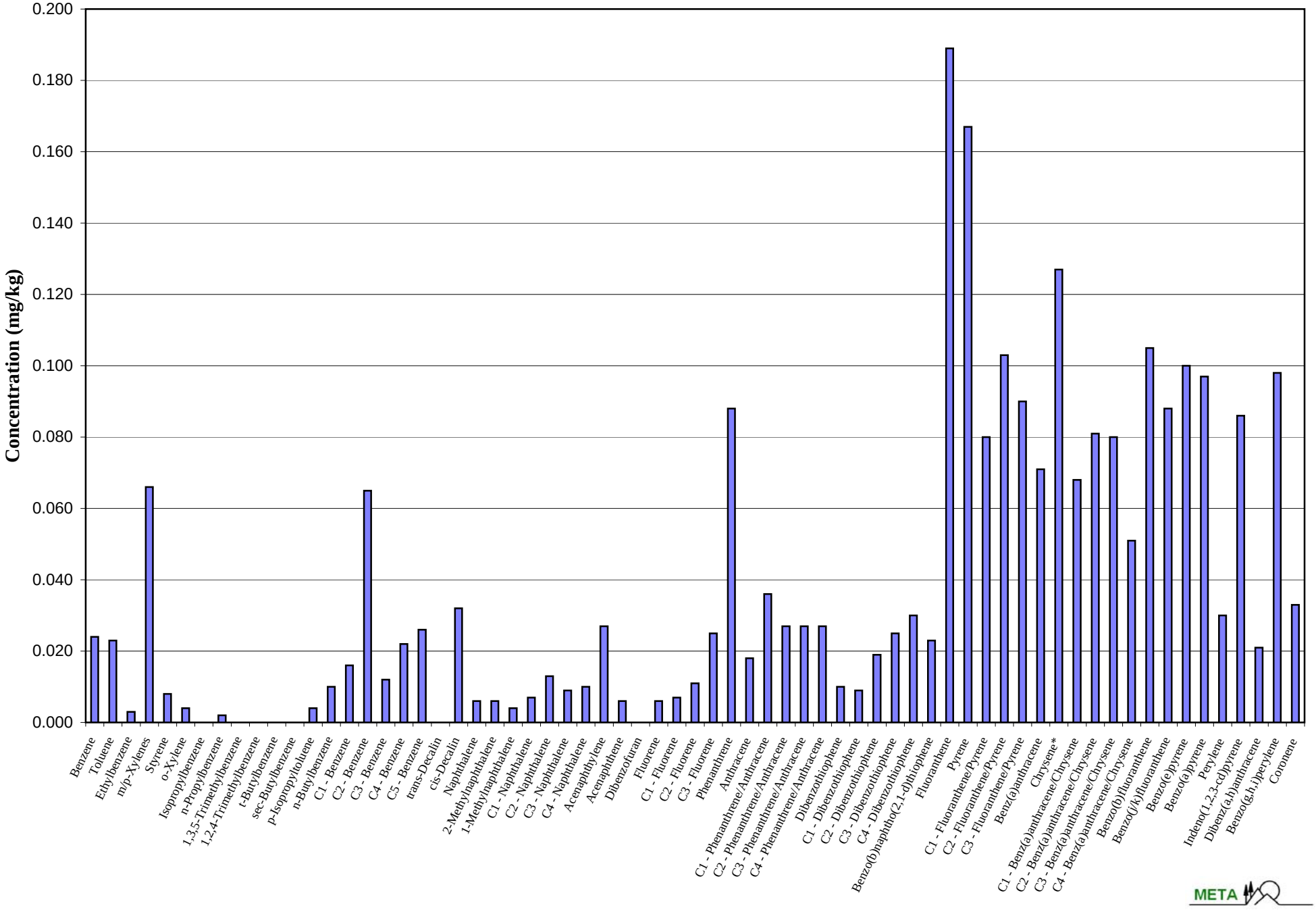

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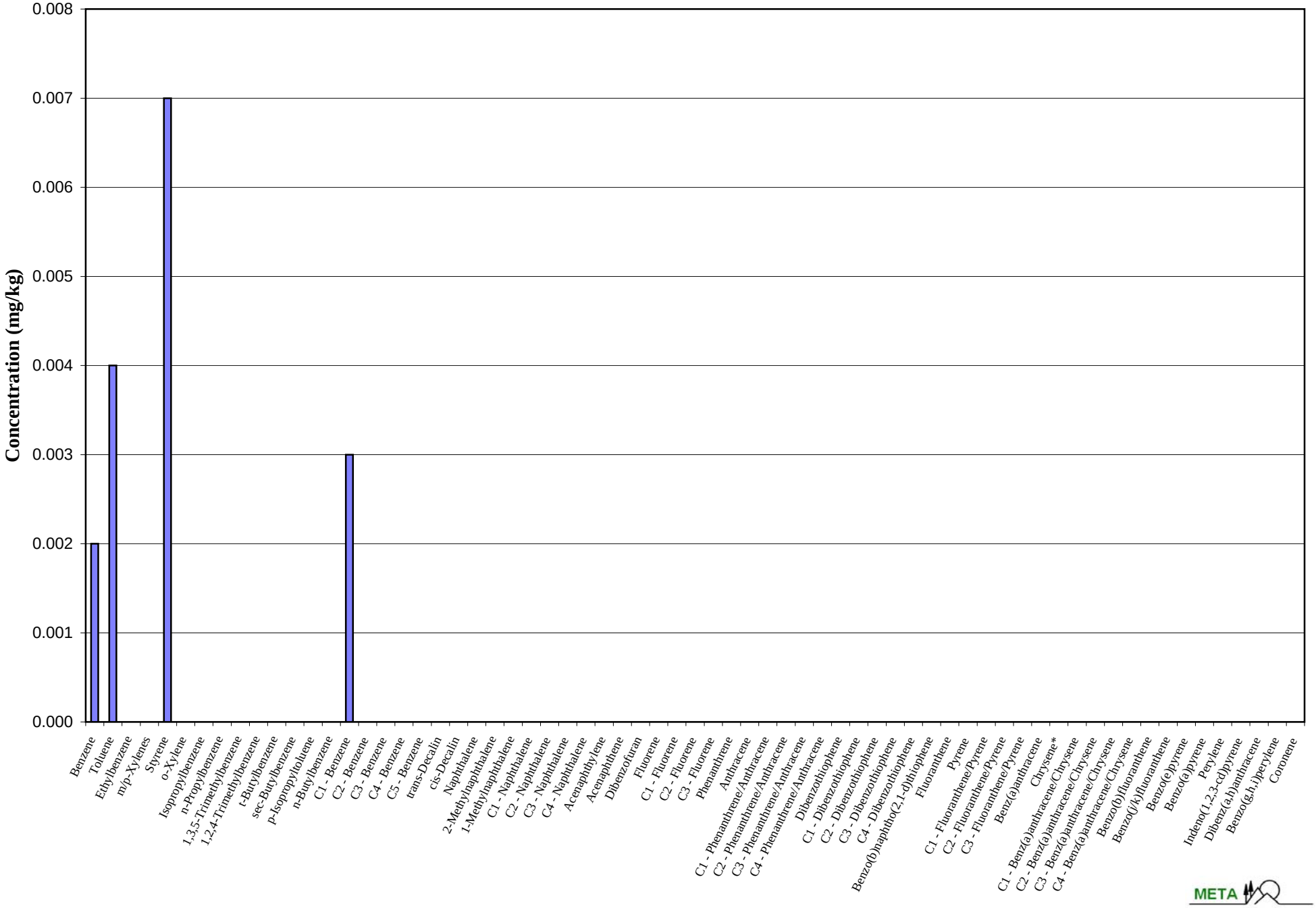

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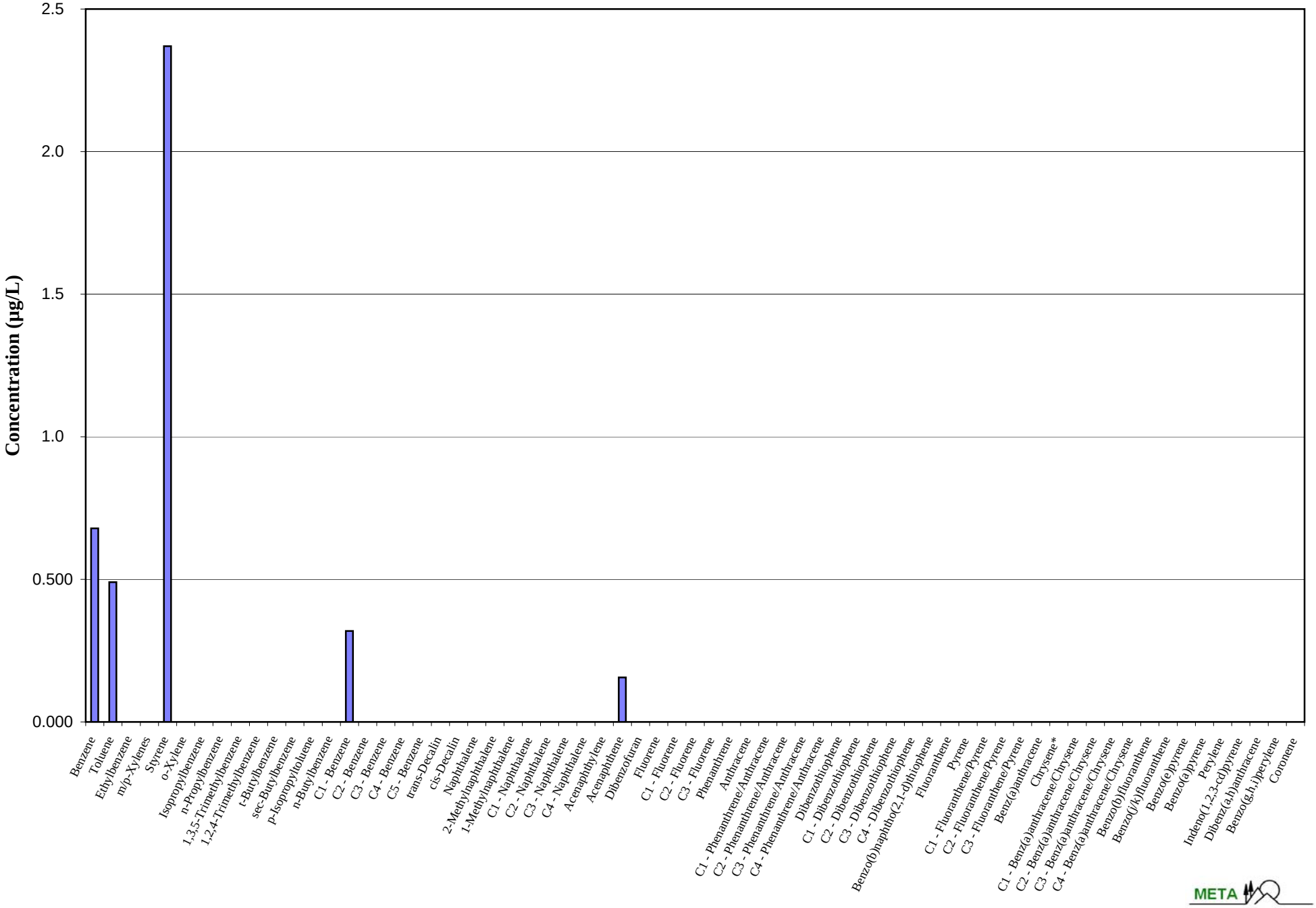

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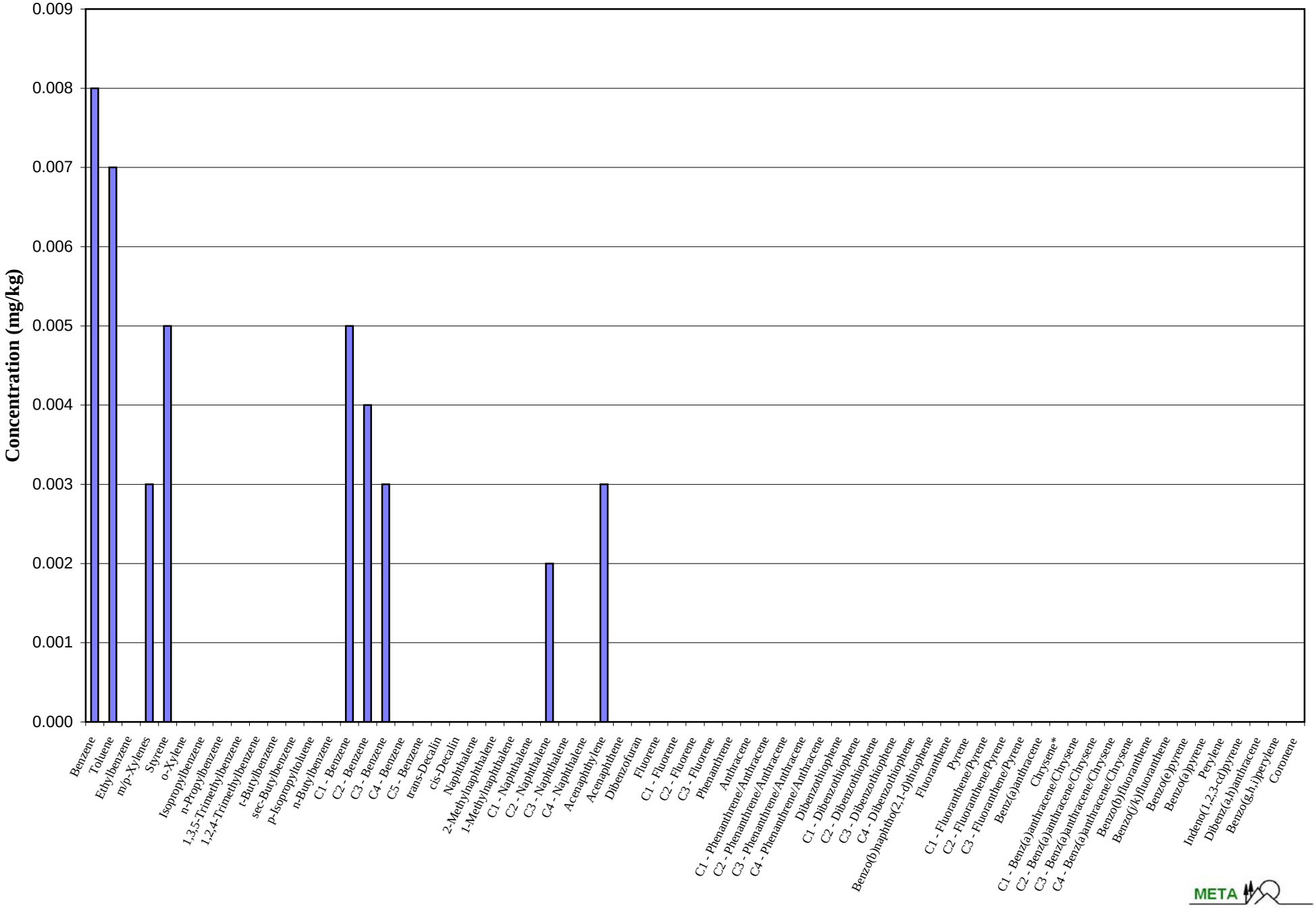


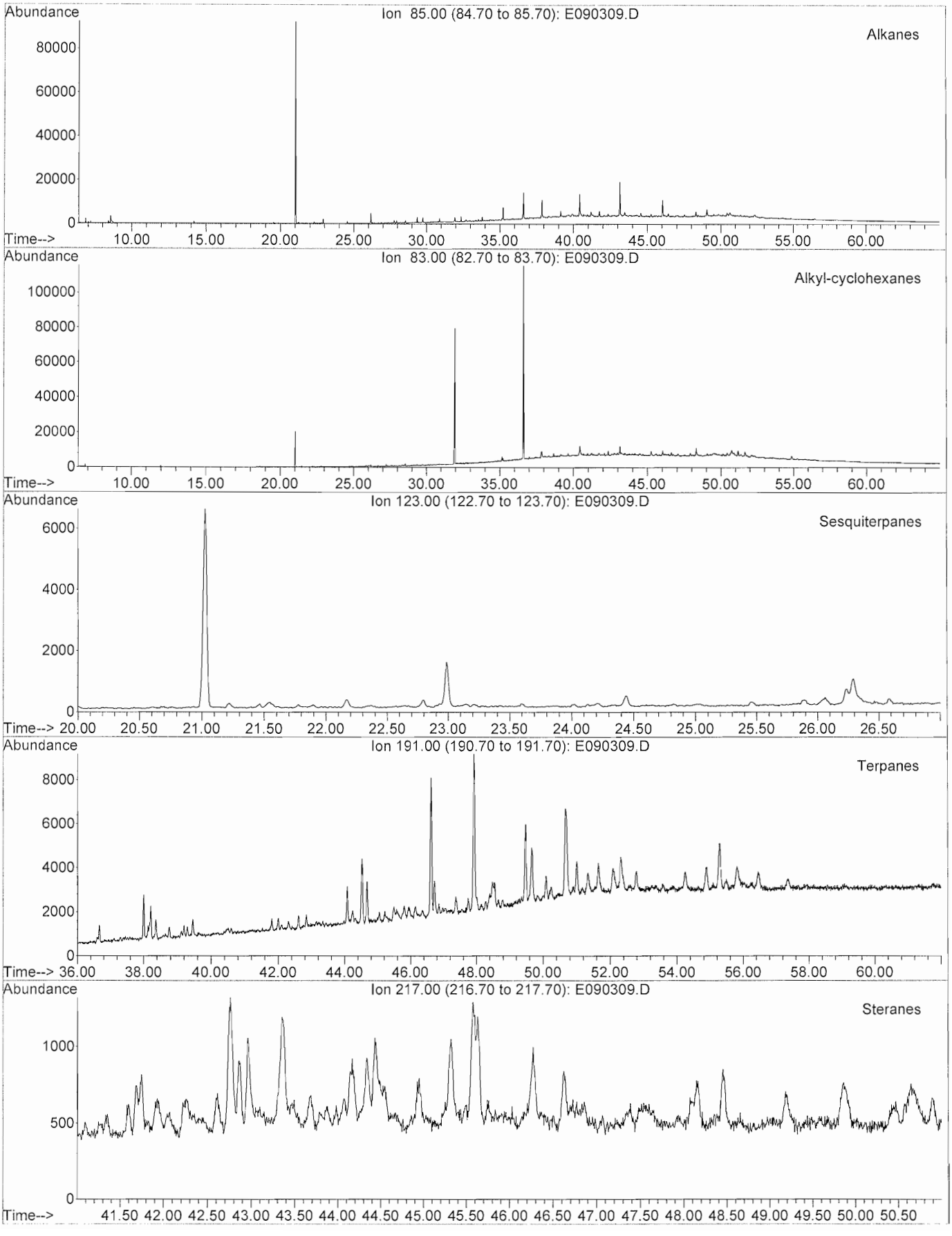
Appendix E

Extracted Ion Current Profiles (EICPs)

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

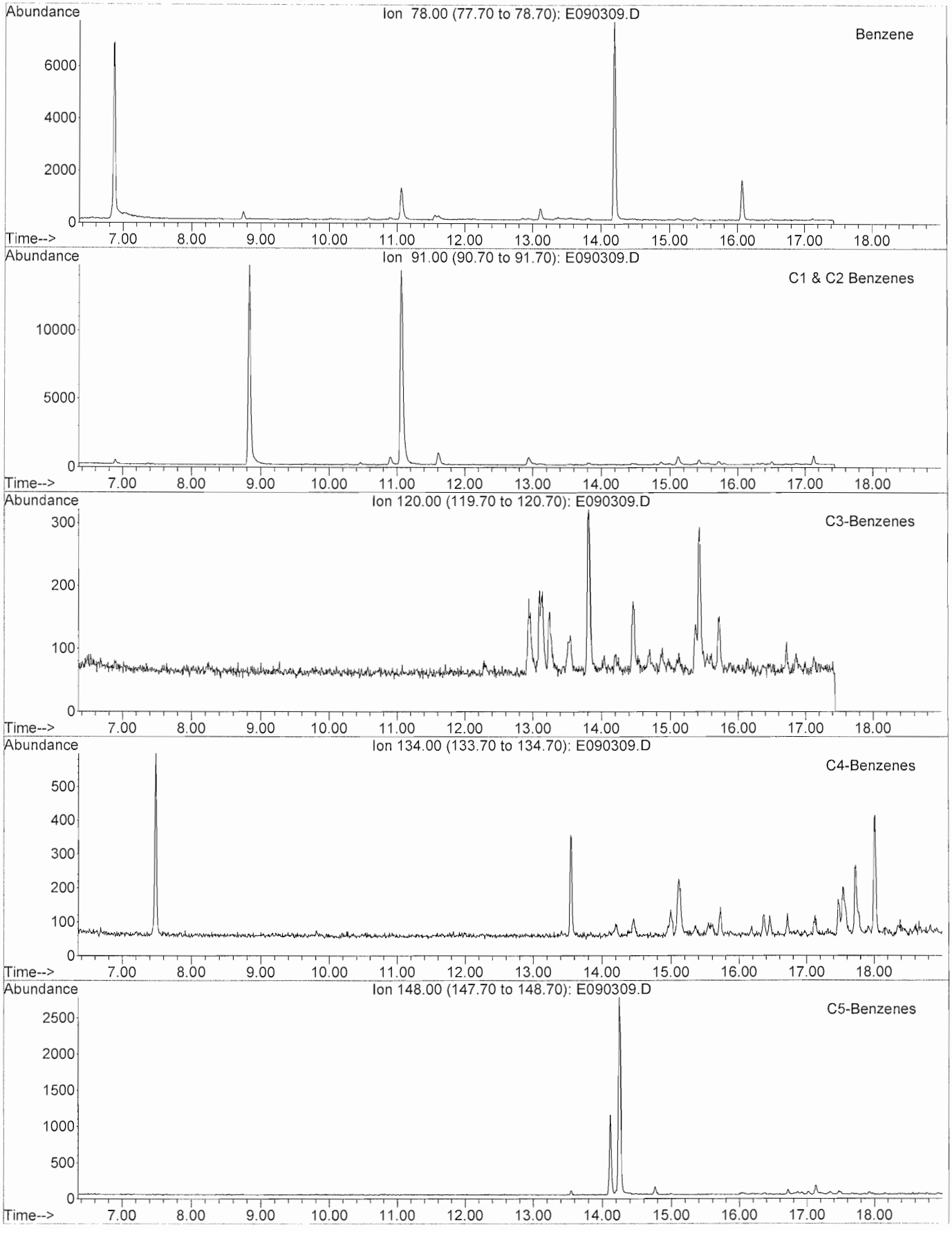
File: J:\1\DATA\E100903\E090309.D
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090309.D
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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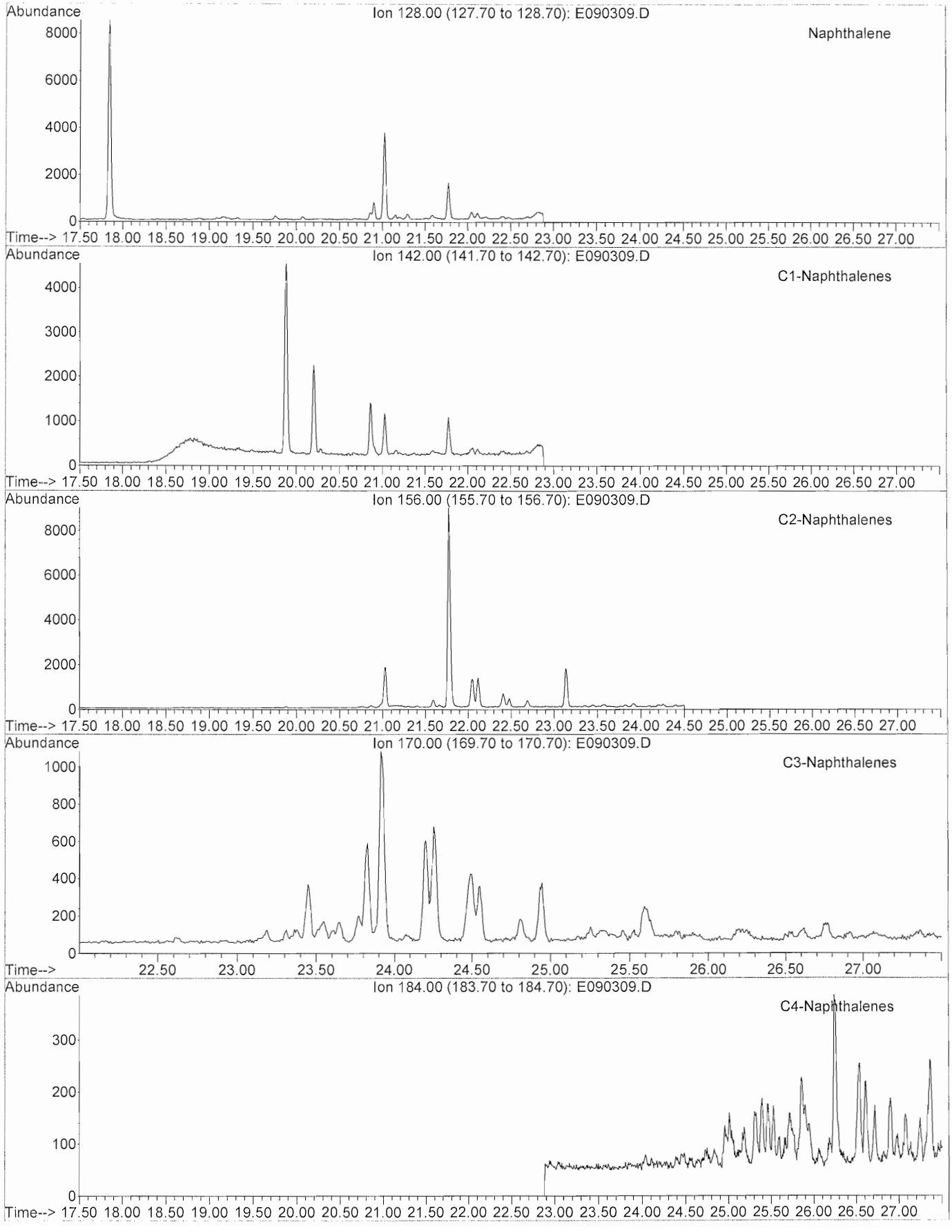
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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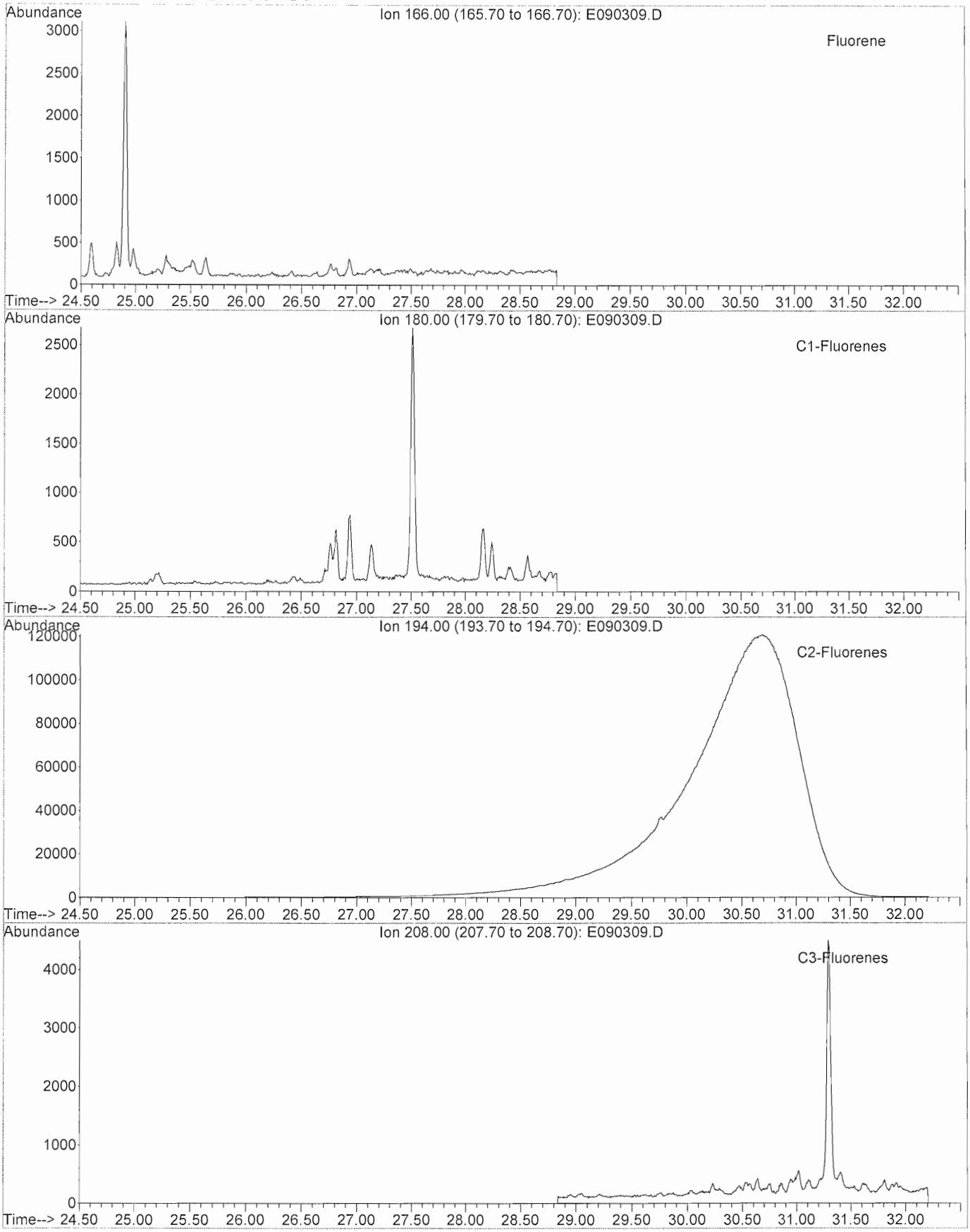
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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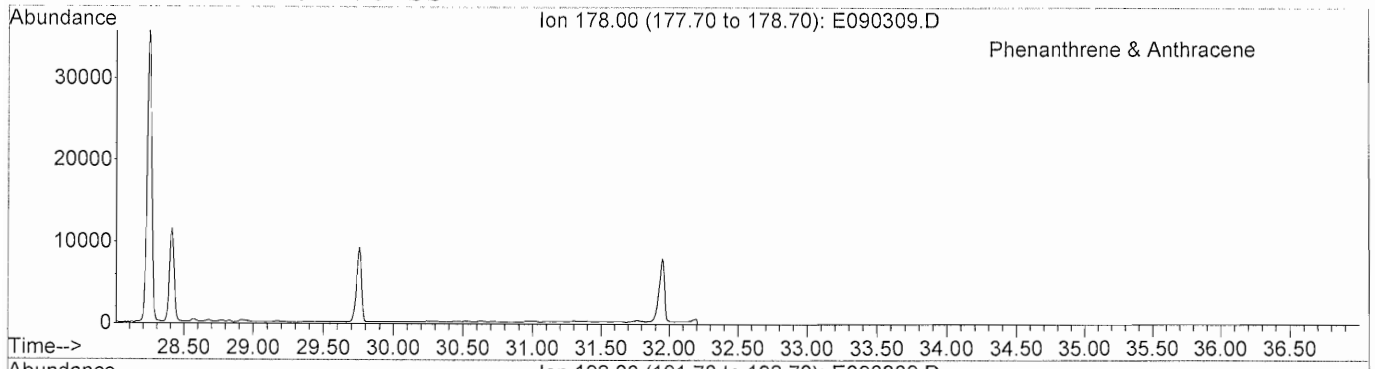
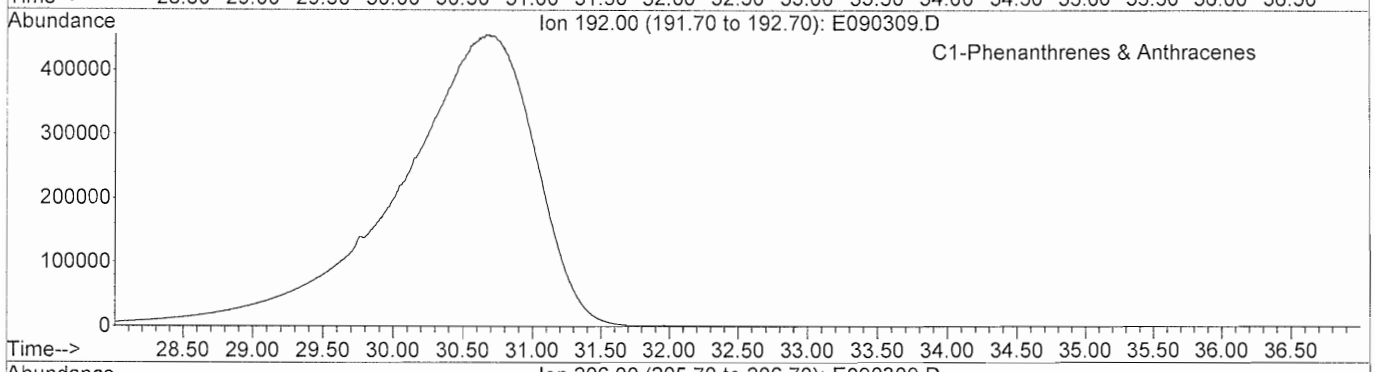
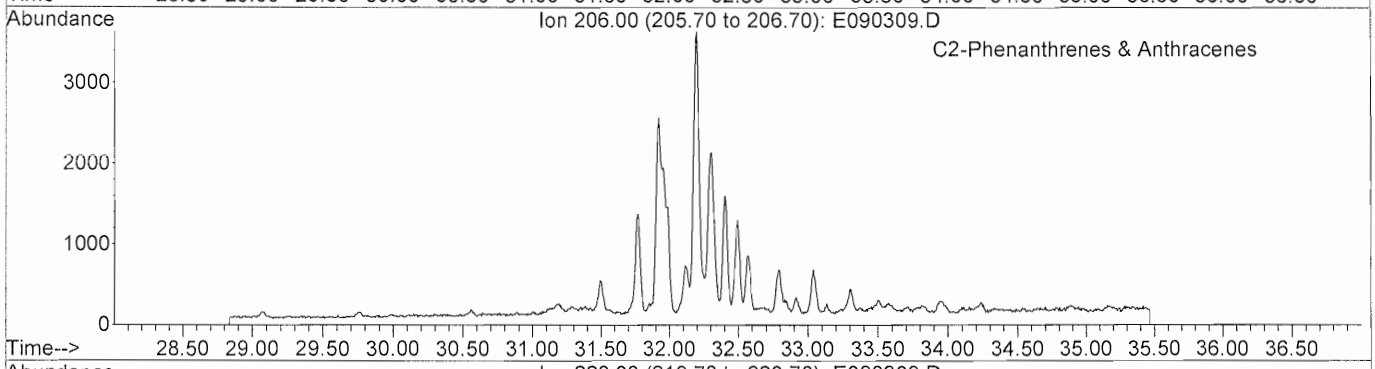
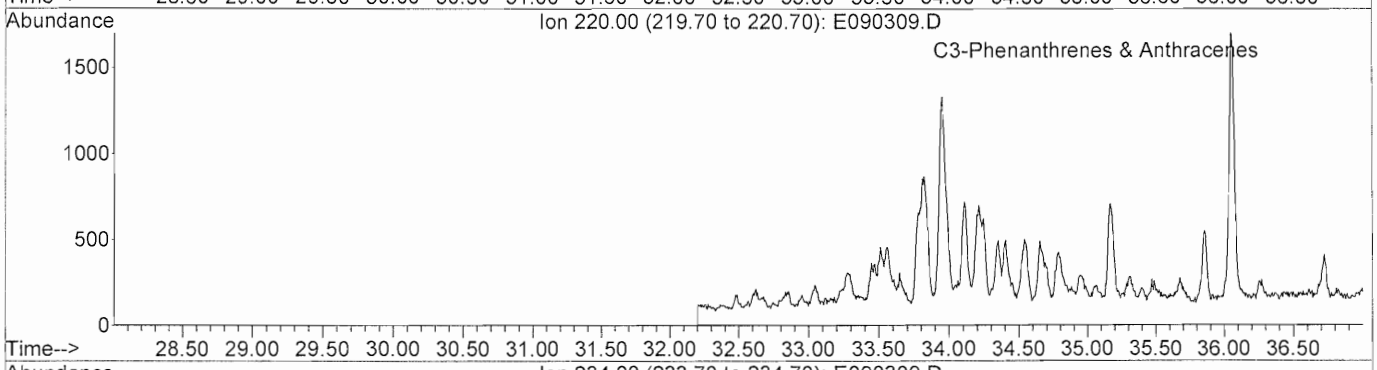
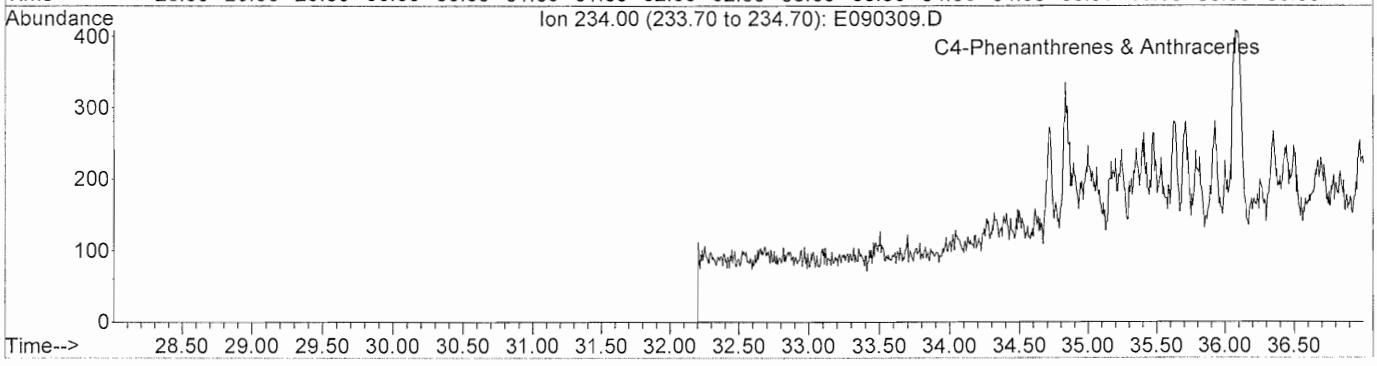
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090309.D
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
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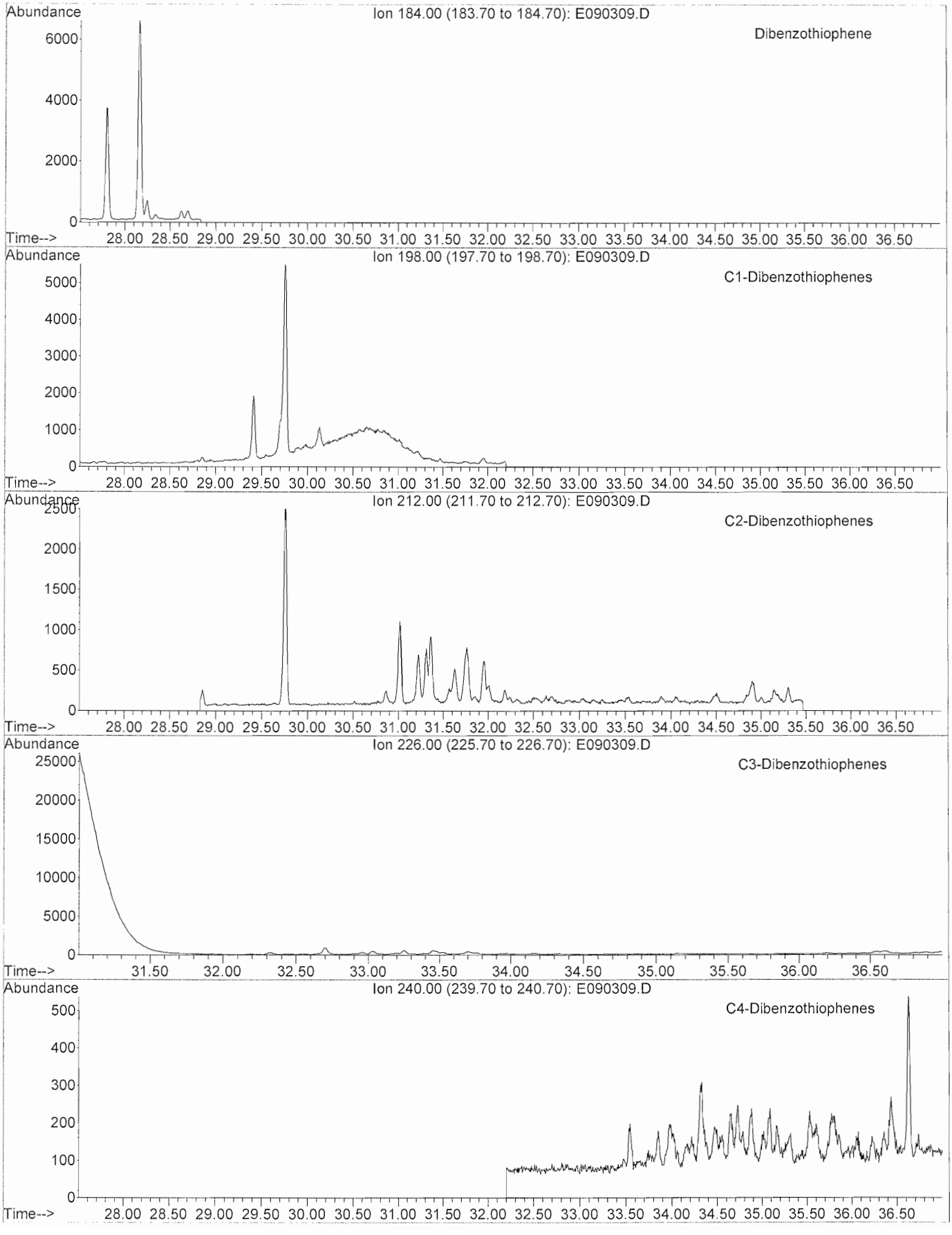

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
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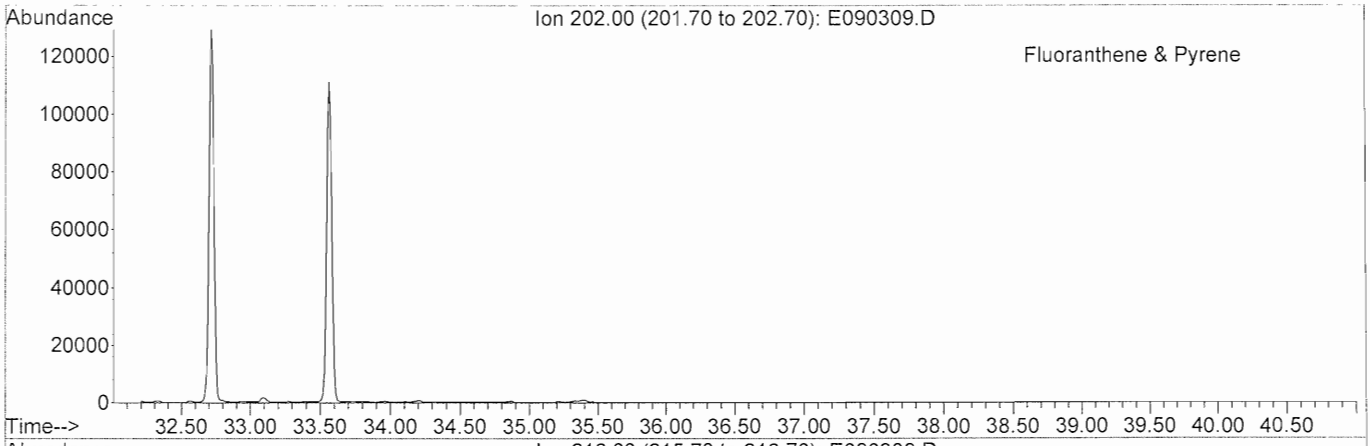

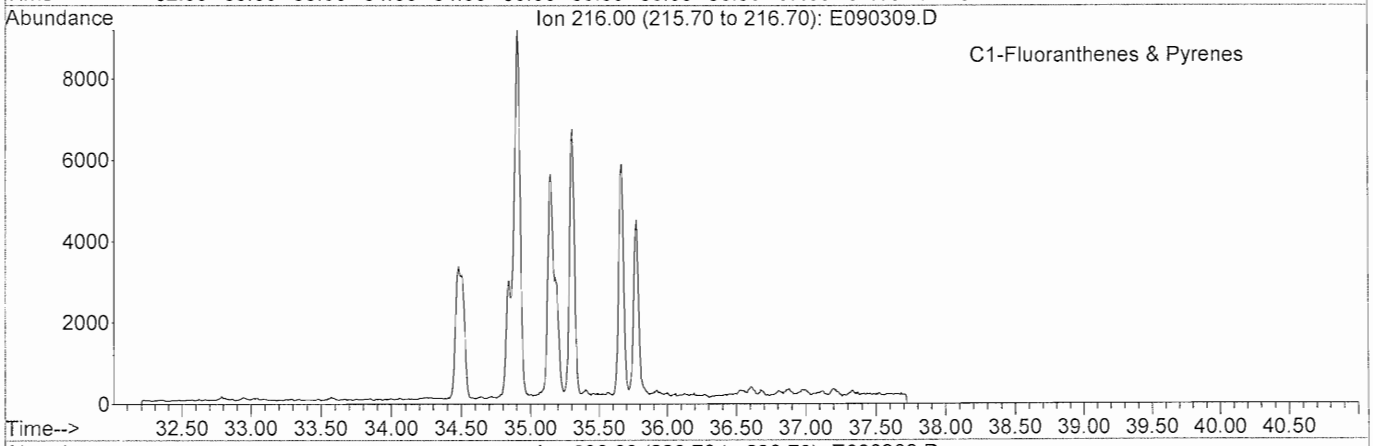

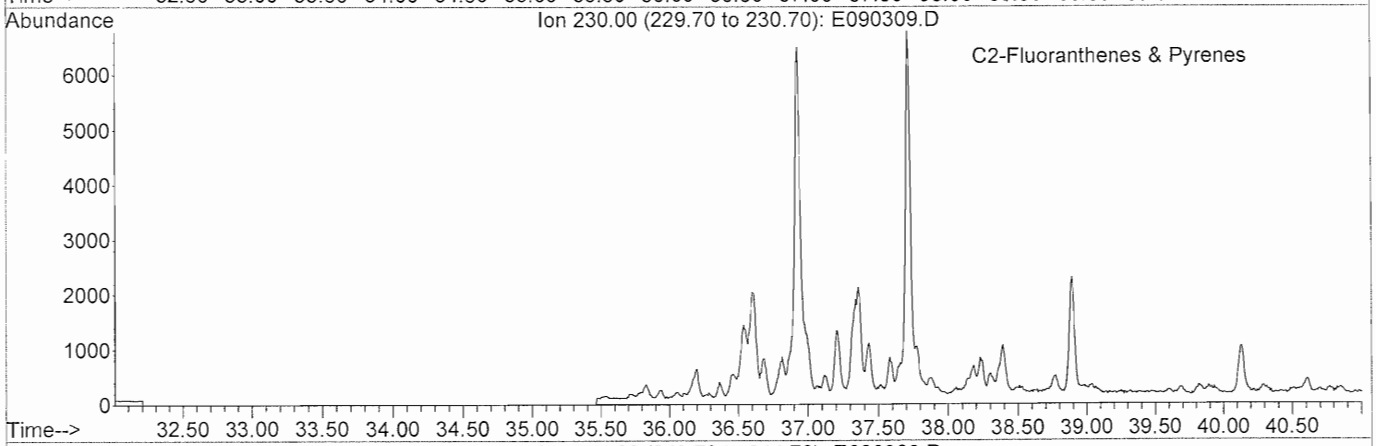

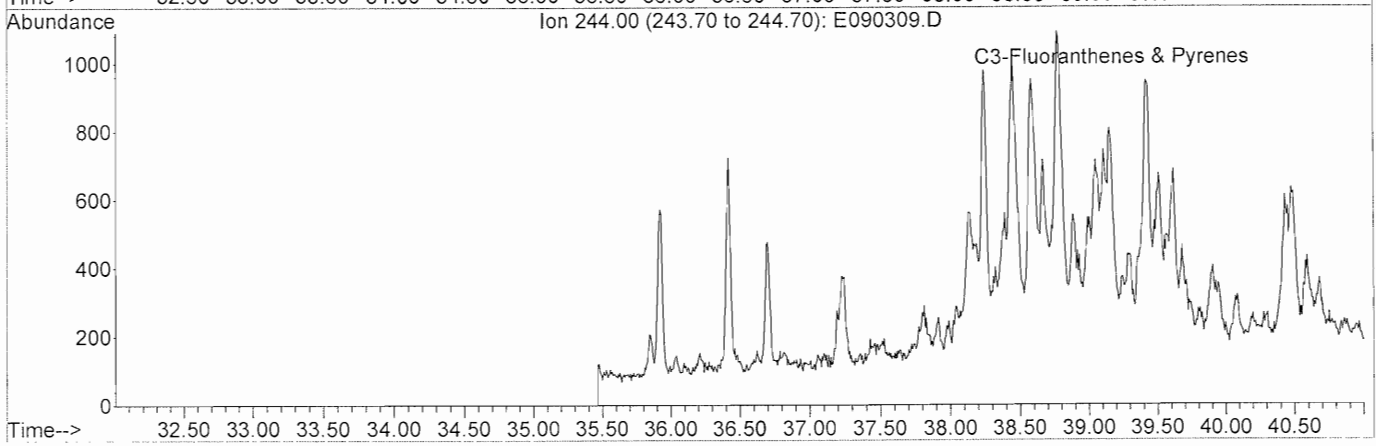

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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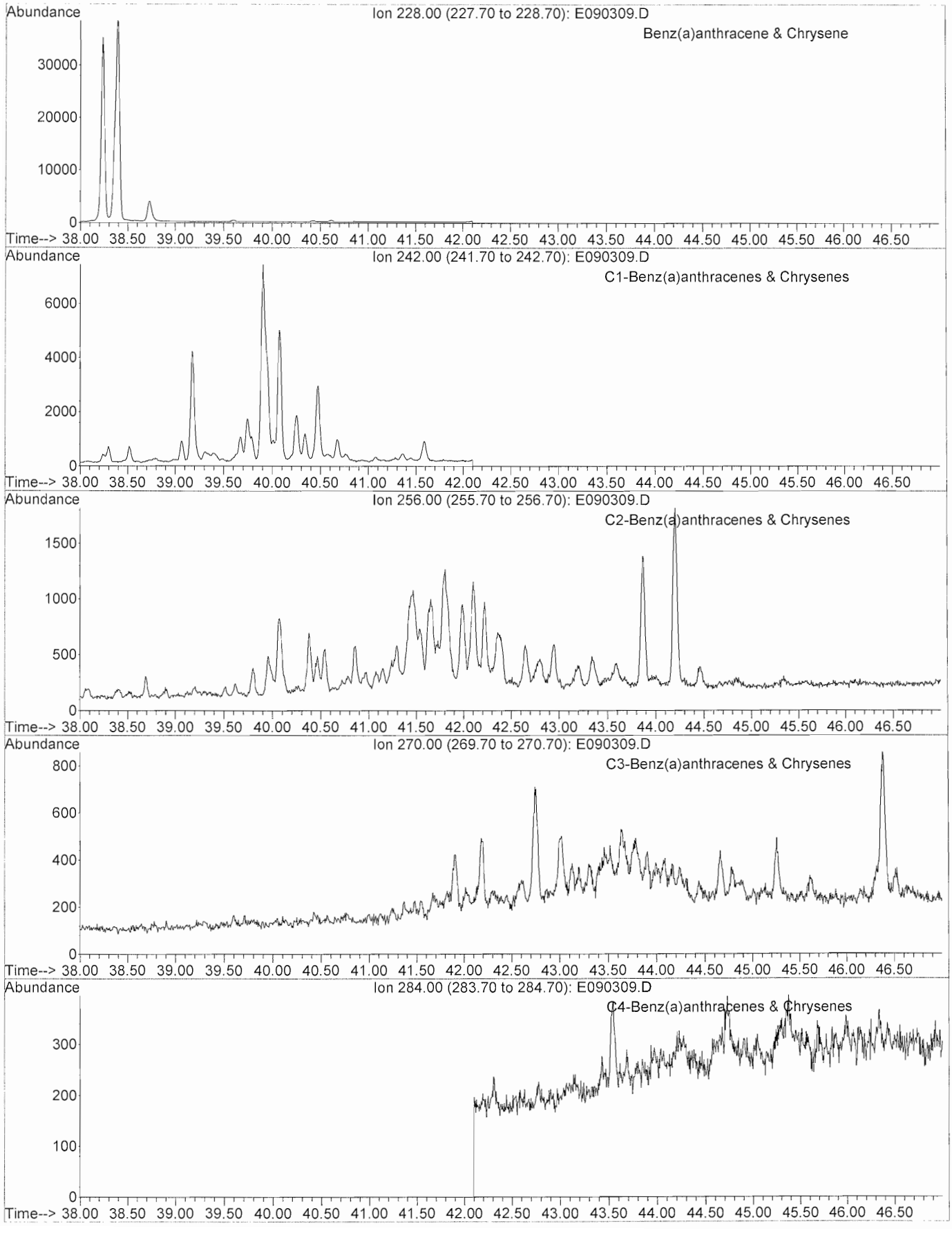
Date Acquired: 4 Sep 2010 12:22 am
Sample Name: TT100819-01DUP
Misc Info: SD-90-SS



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

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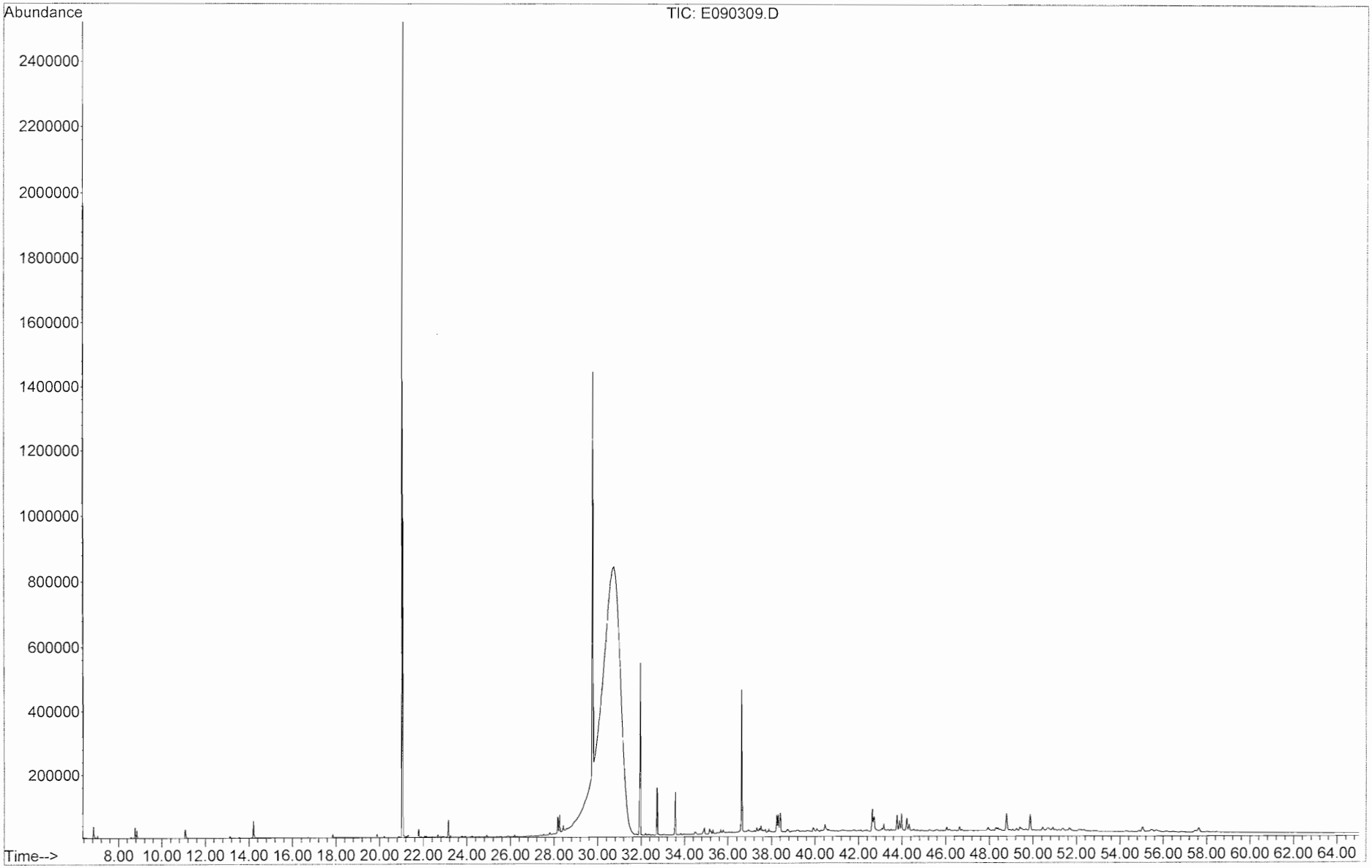

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 1:43 am
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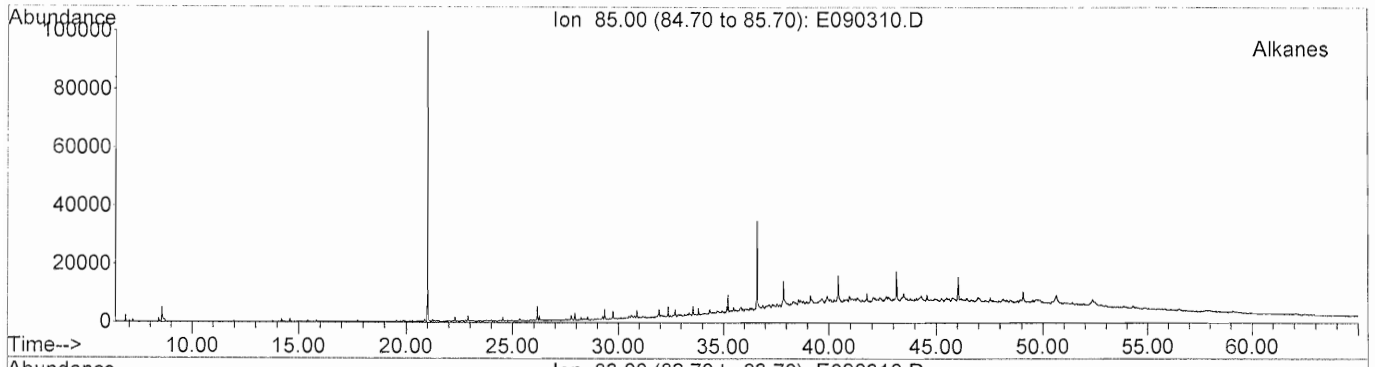

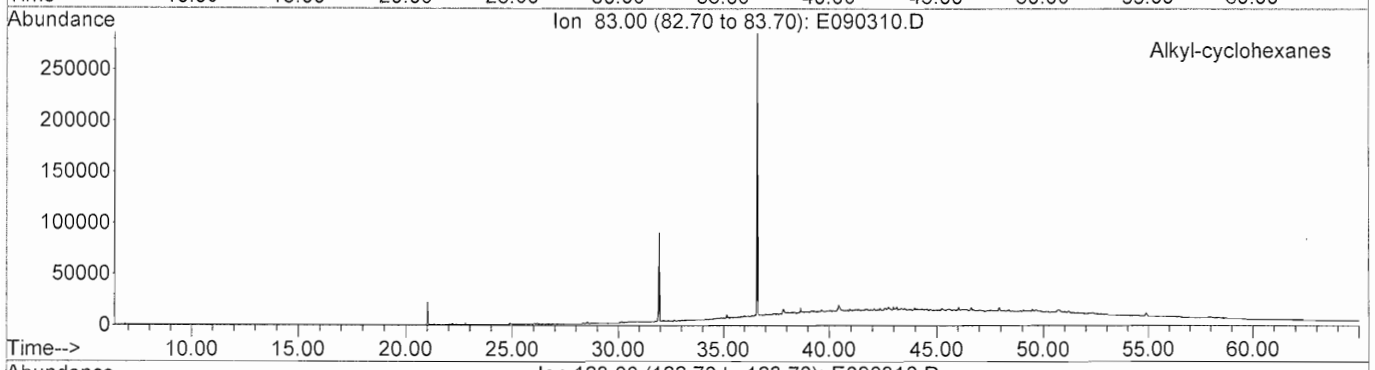

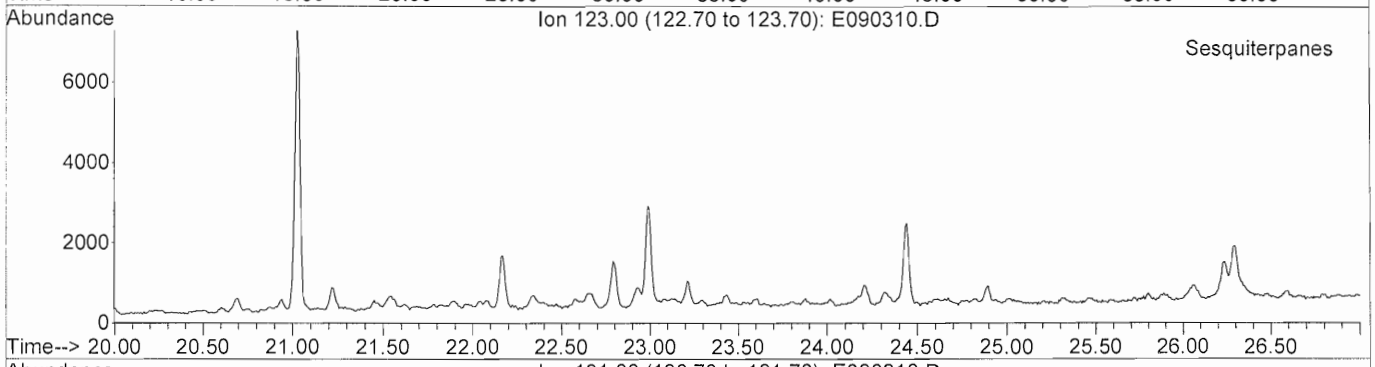

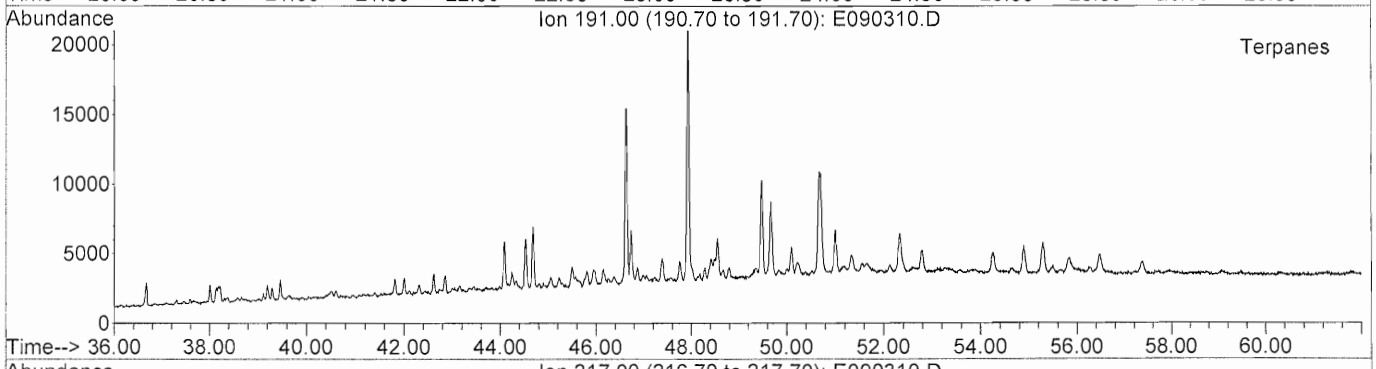

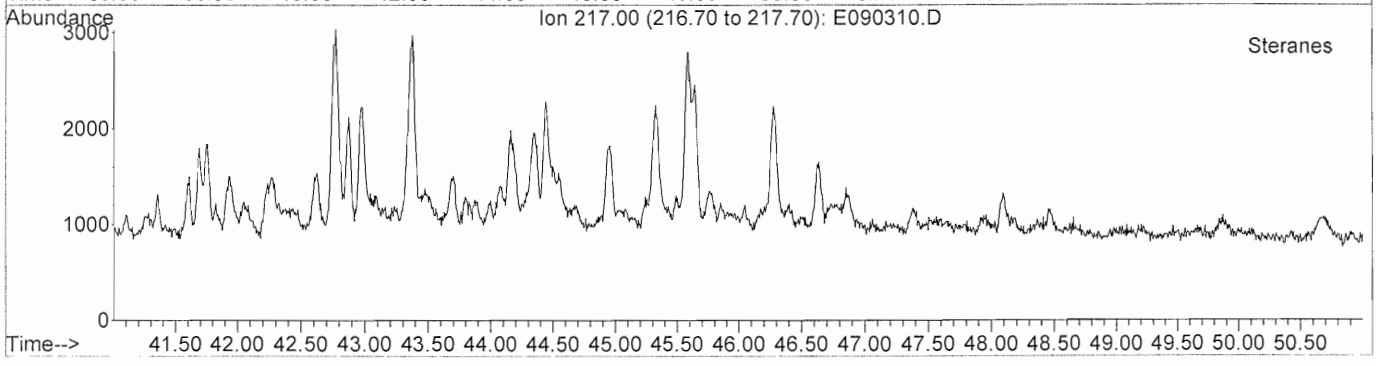

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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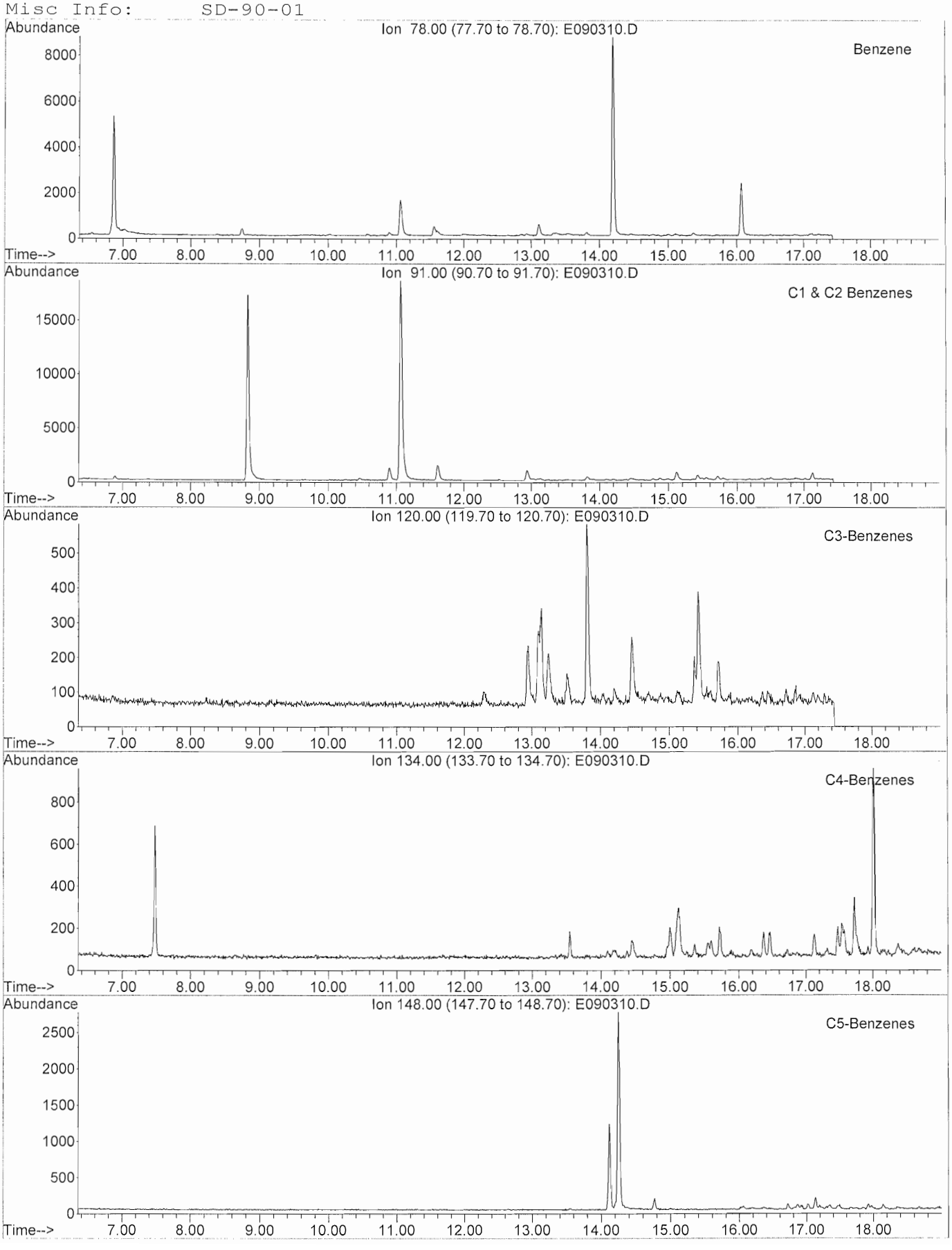
Date Acquired: 4 Sep 2010 1:43 am
Sample Name: TT100819-02
Misc Info: SD-90-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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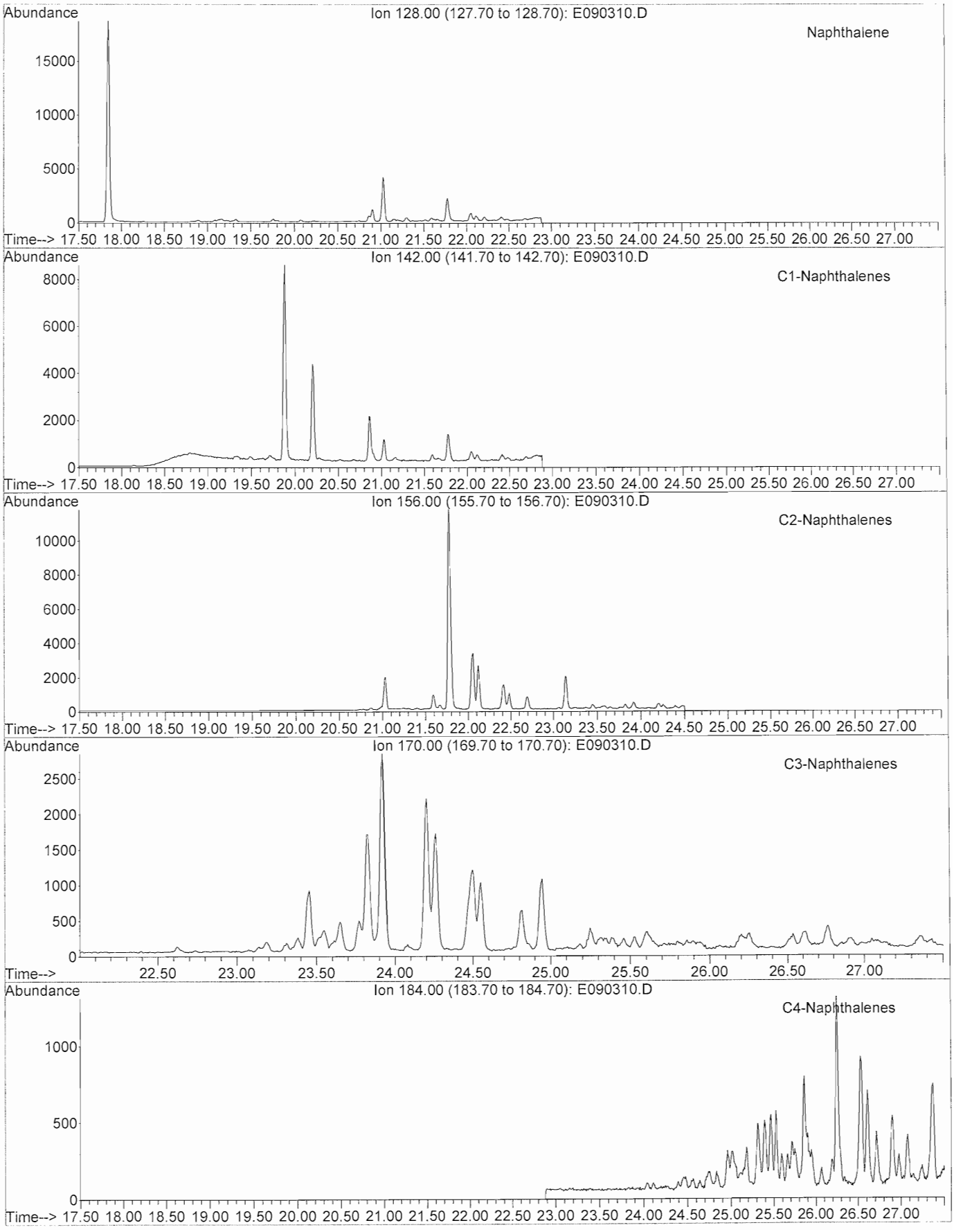

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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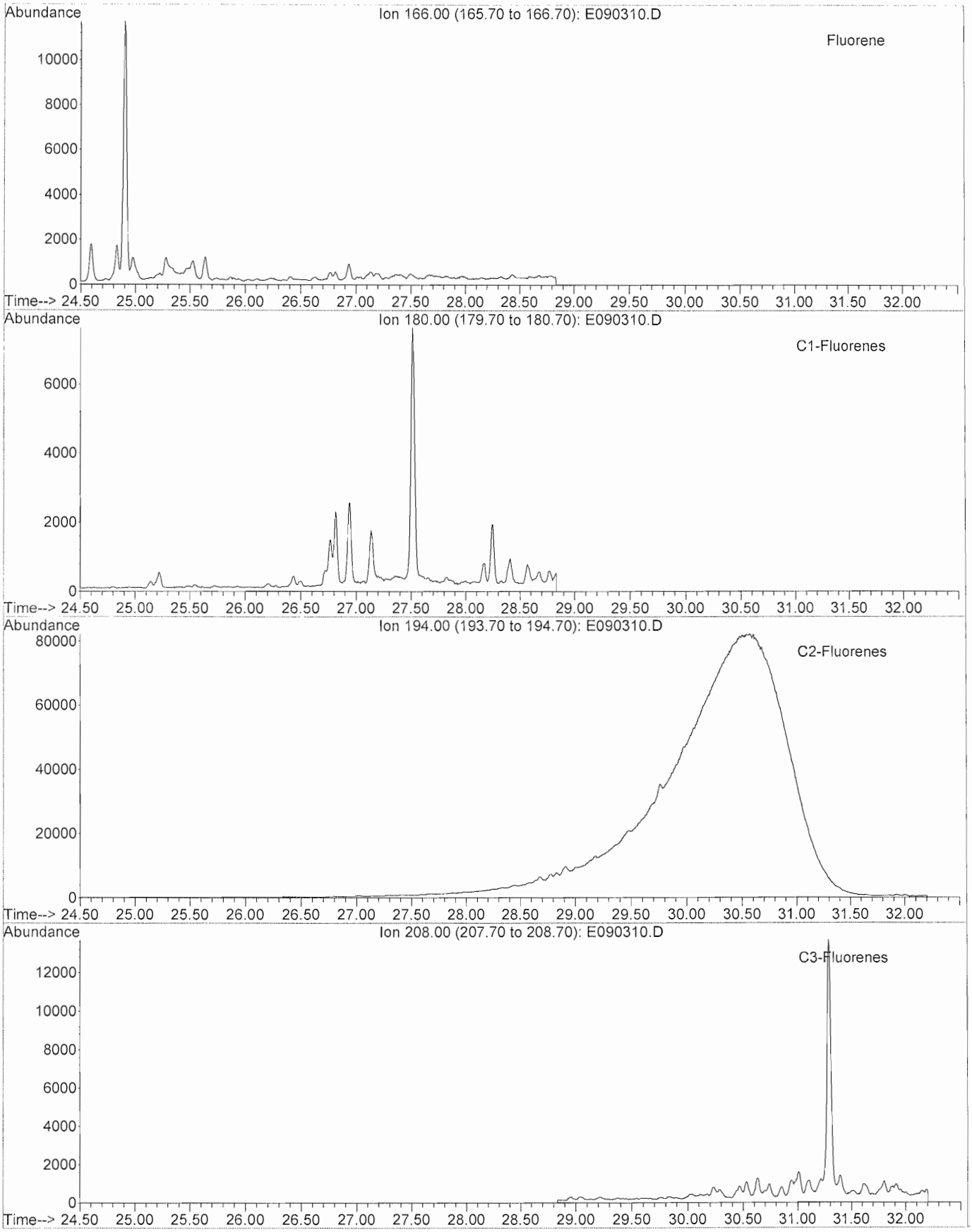

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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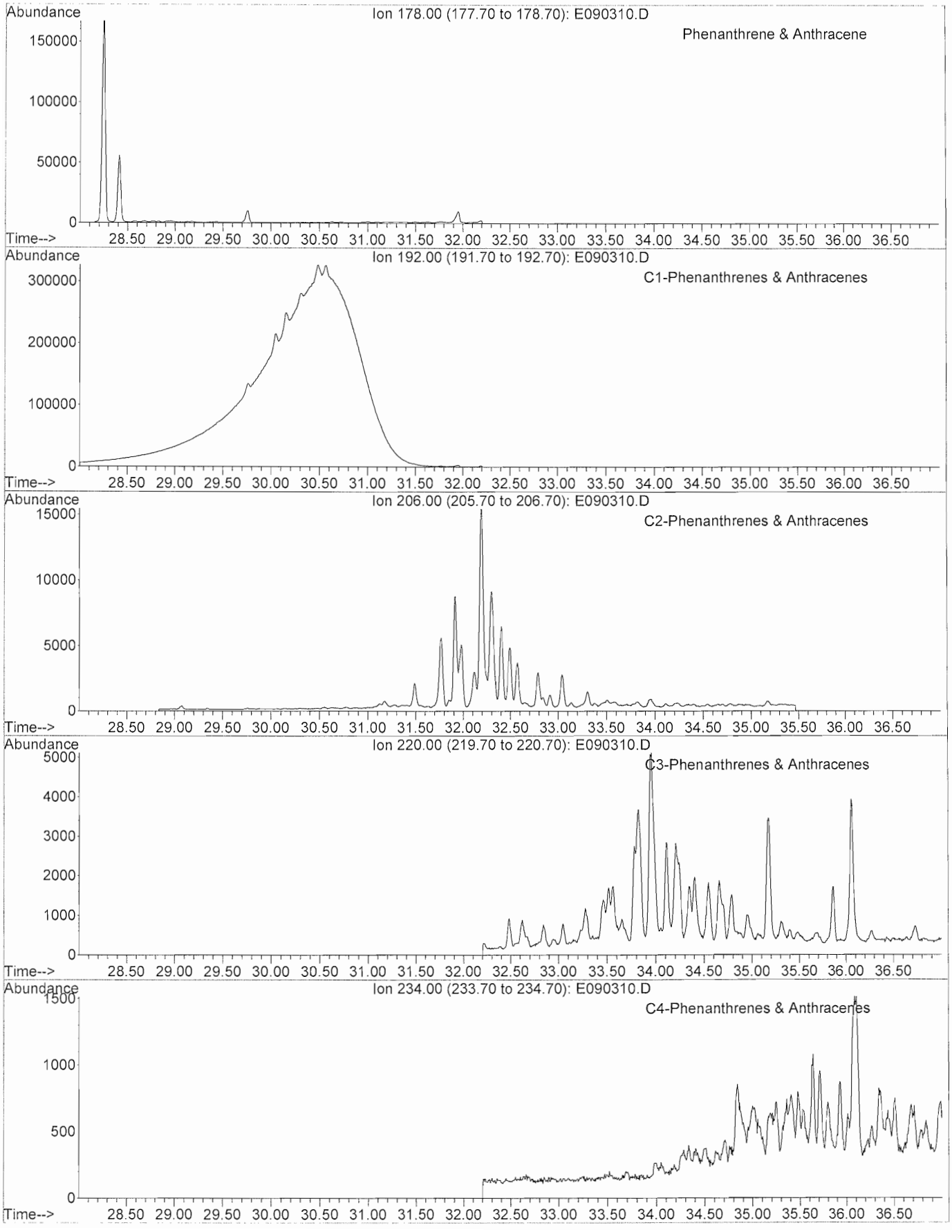

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 1:43 am
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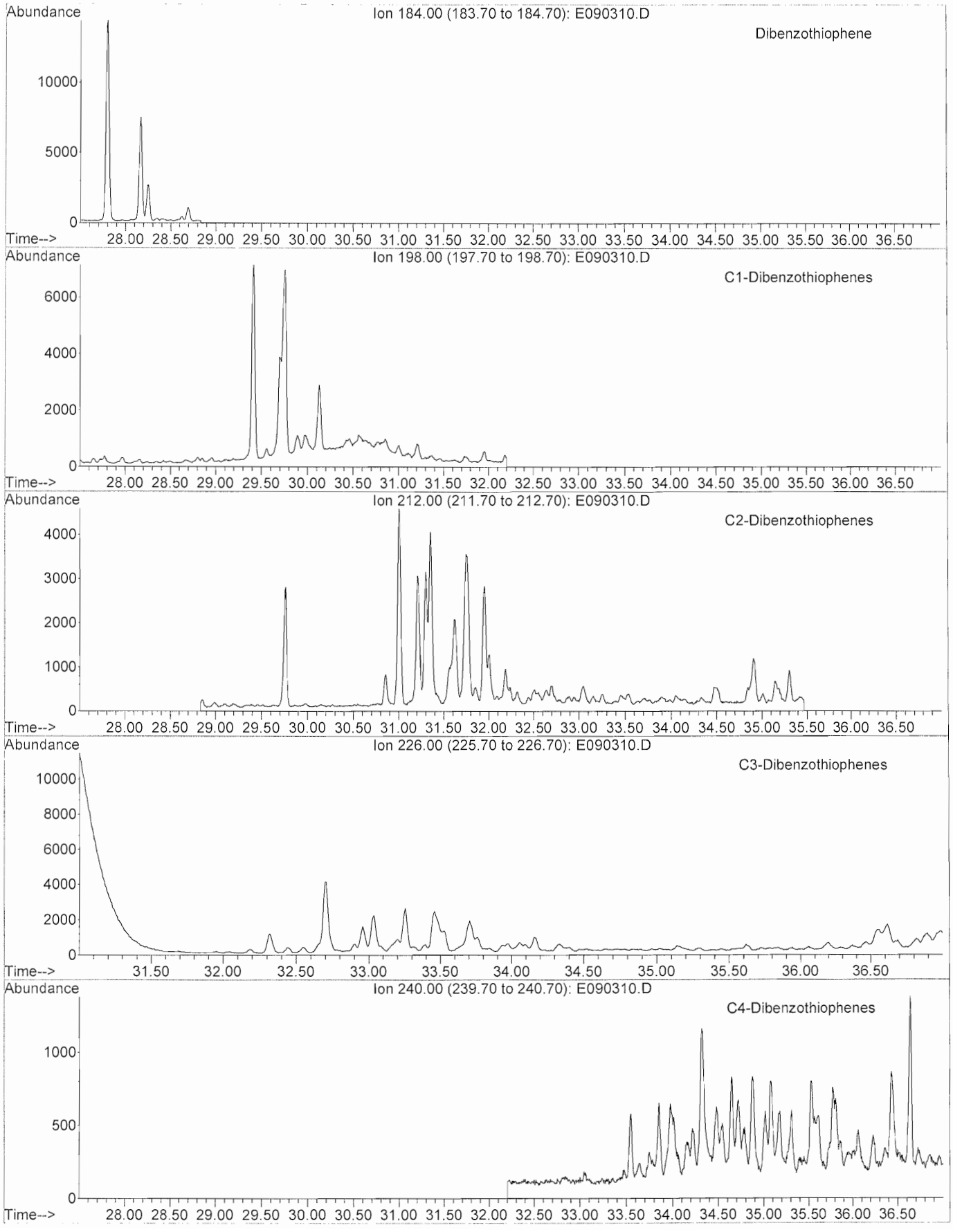

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090310.D
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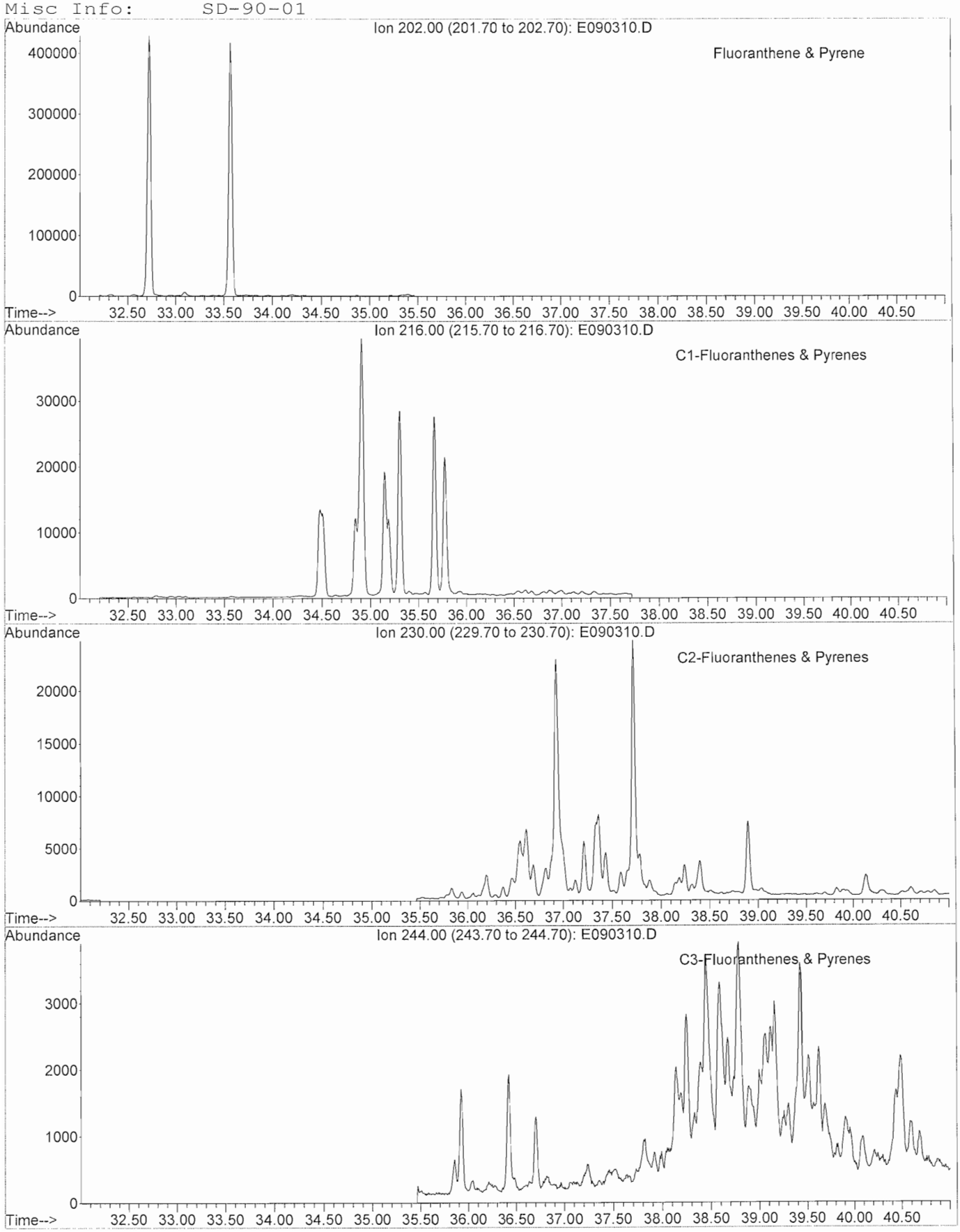
Misc Info: SD-90-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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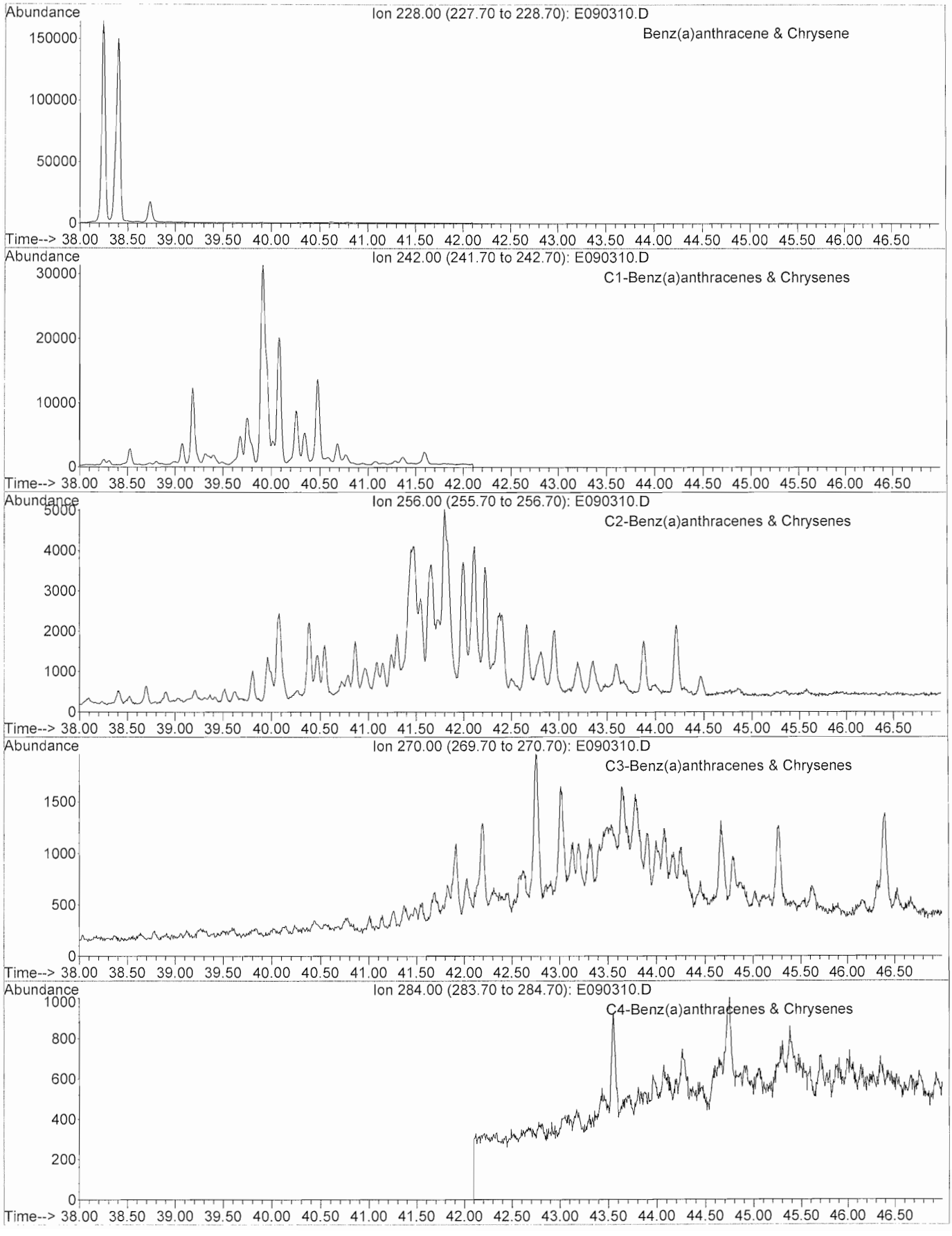

META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

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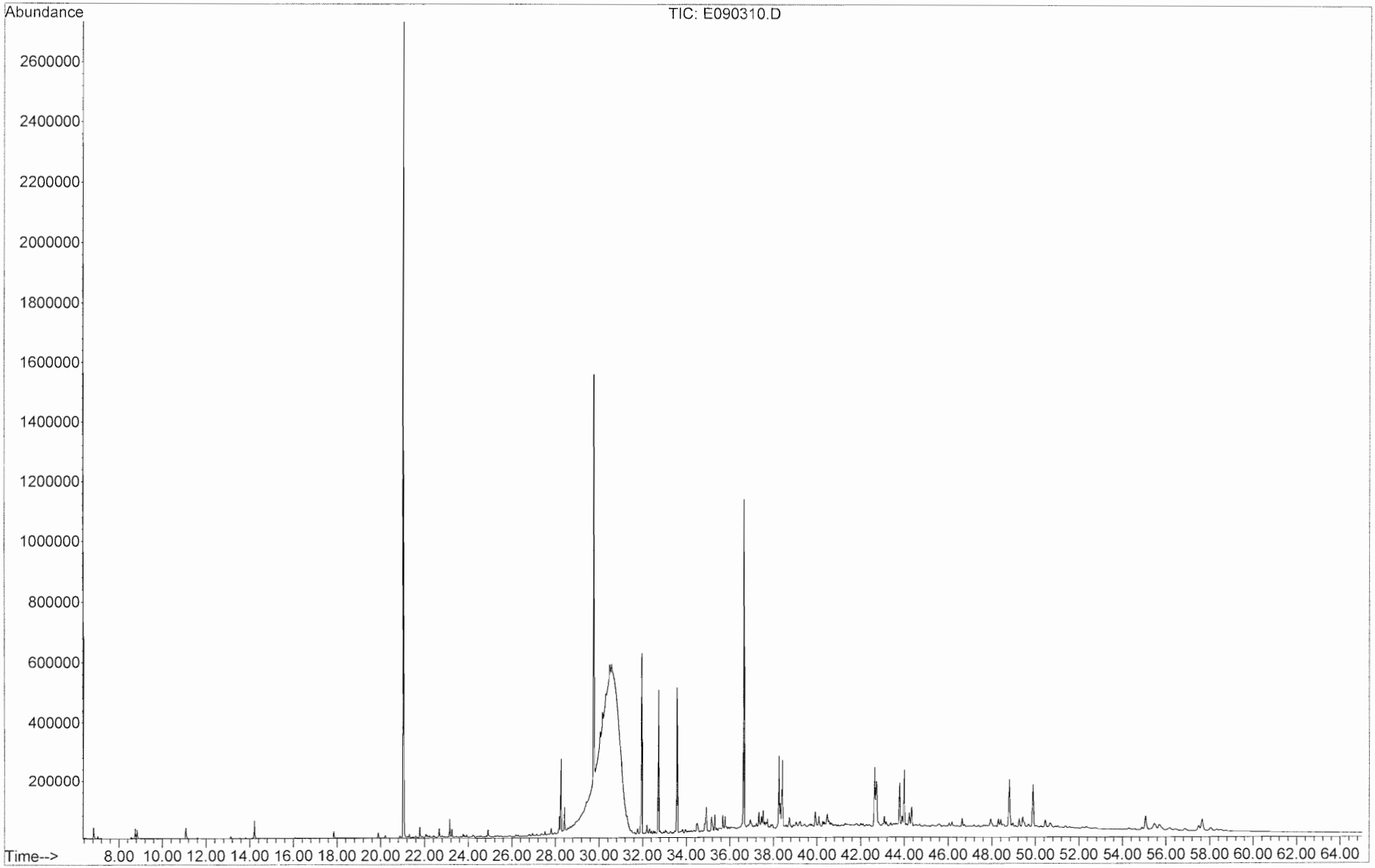
Date Acquired: 4 Sep 2010 1:43 am
Sample Name: TT100819-02
Misc Info: SD-90-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
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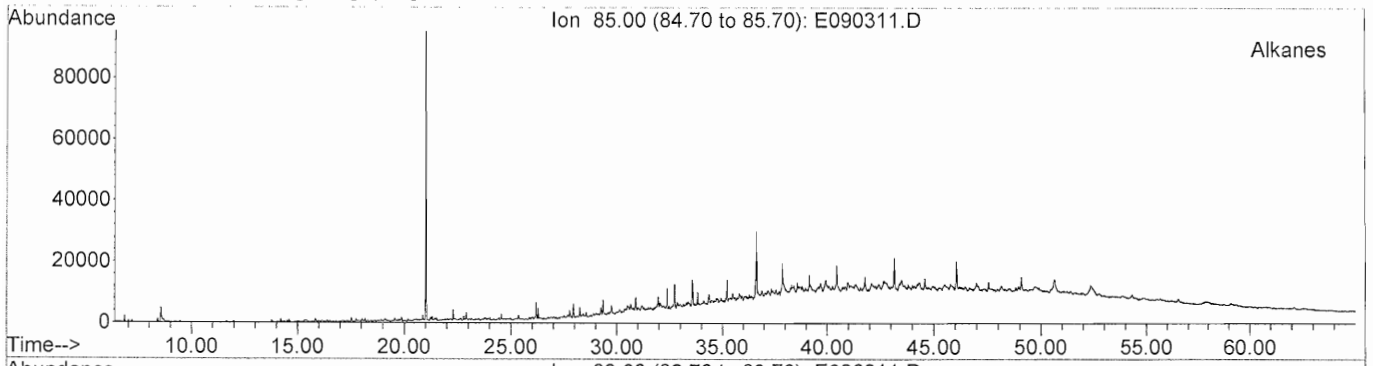
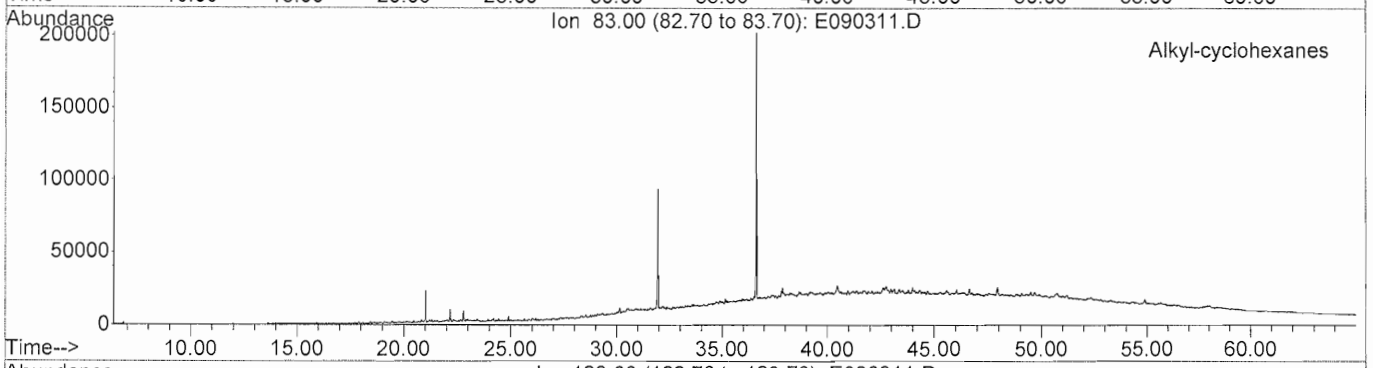
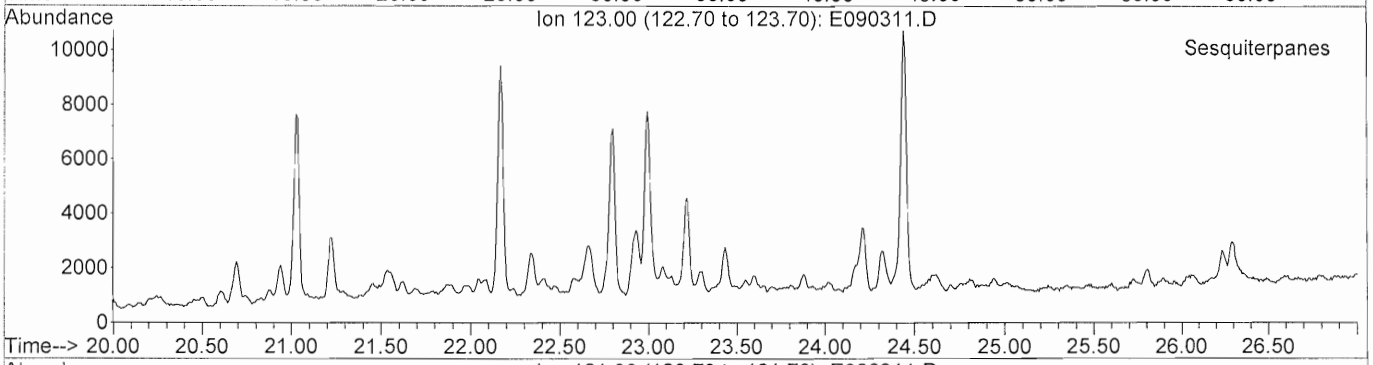
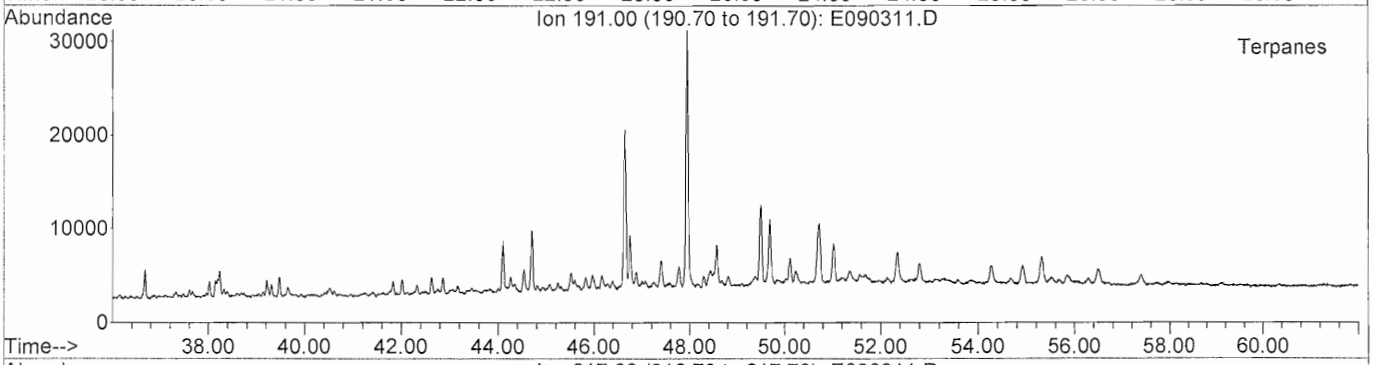
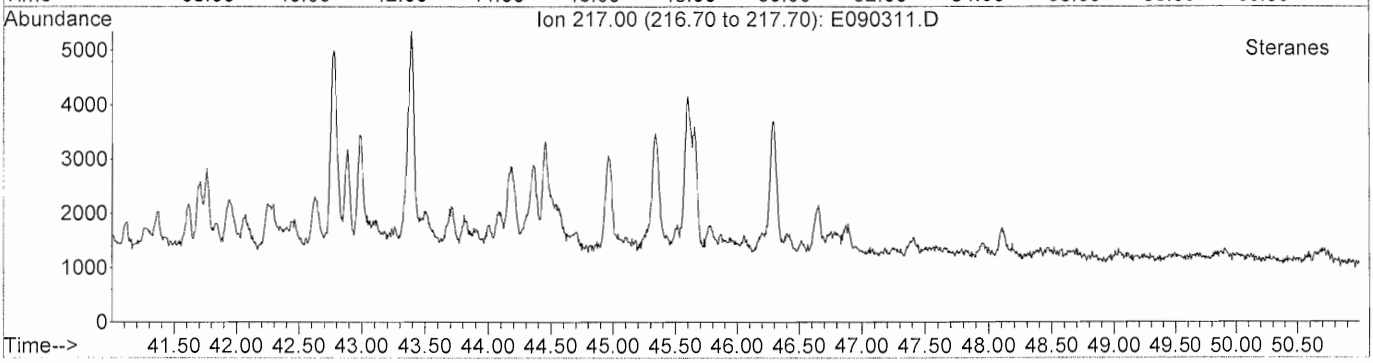






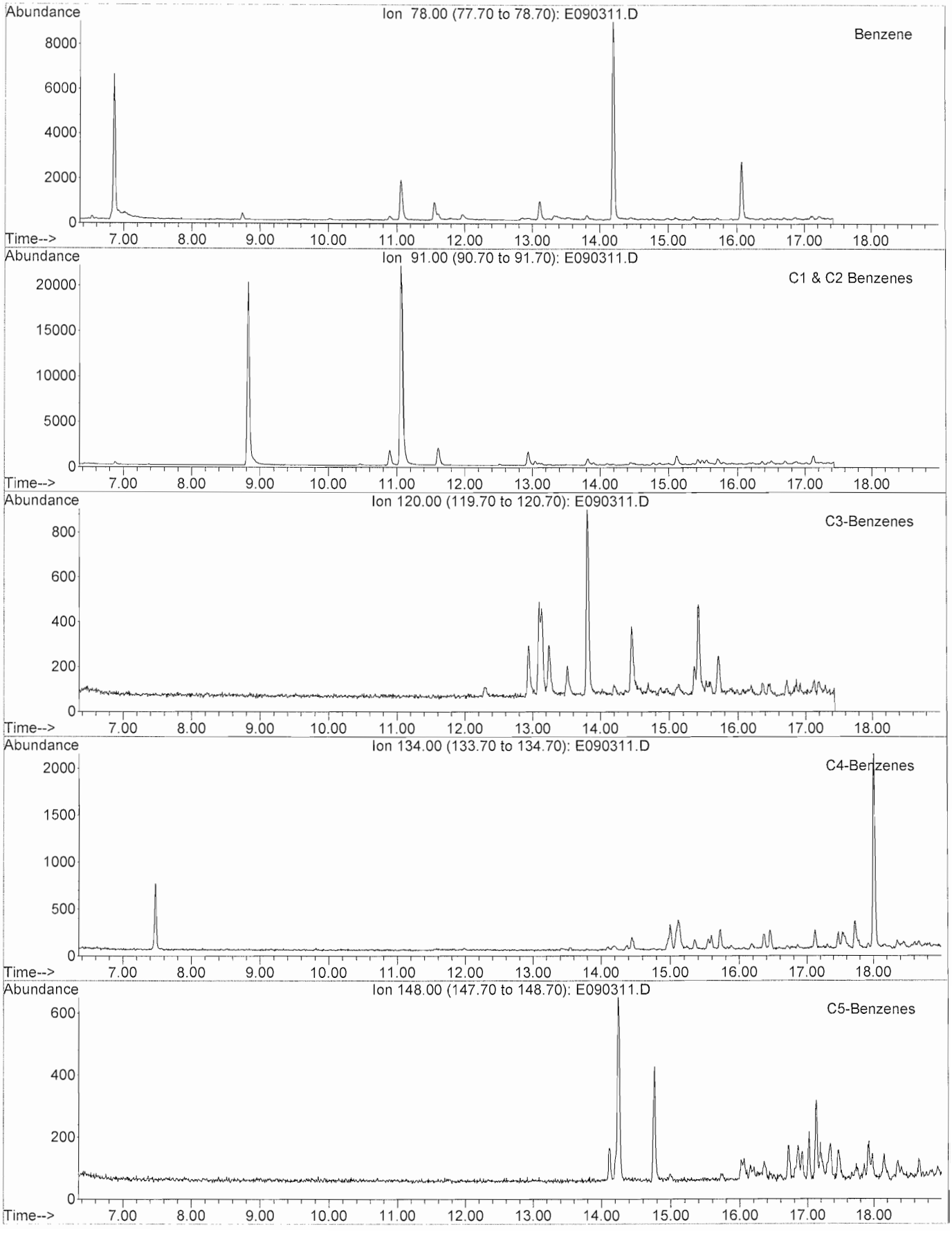




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090311.D
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
Misc Info: SD-90-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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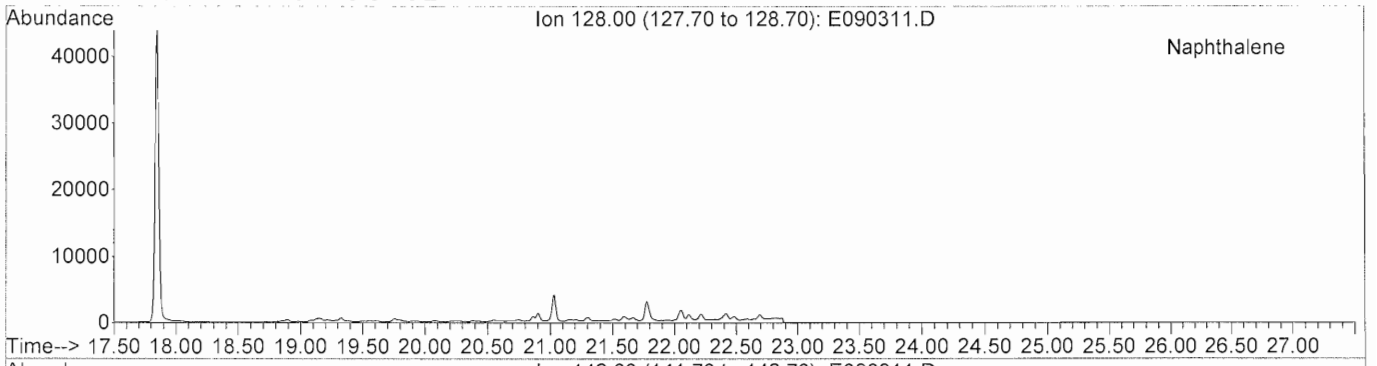
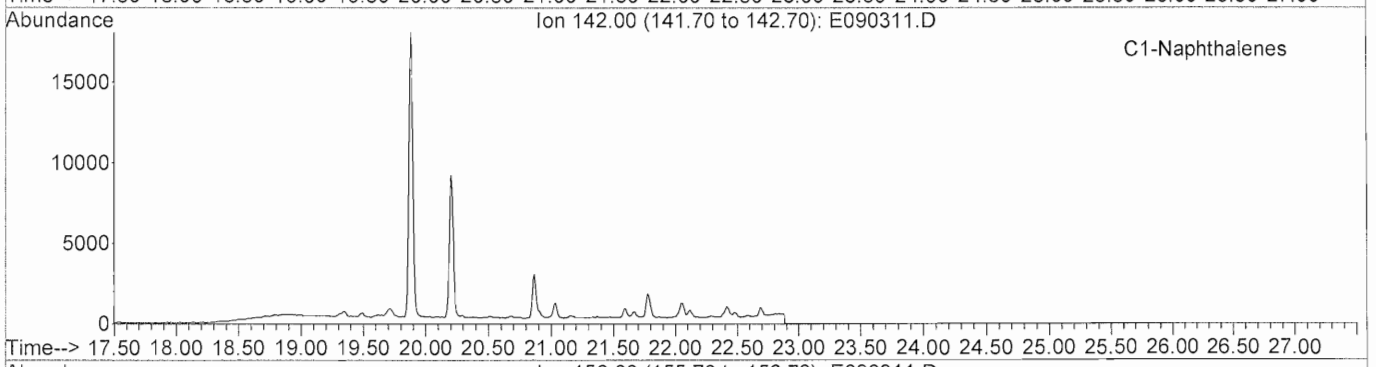
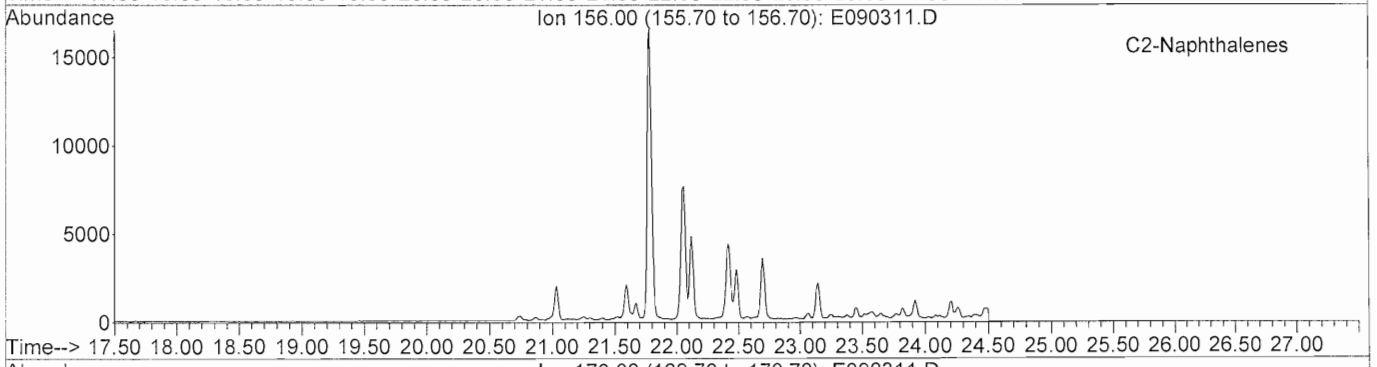
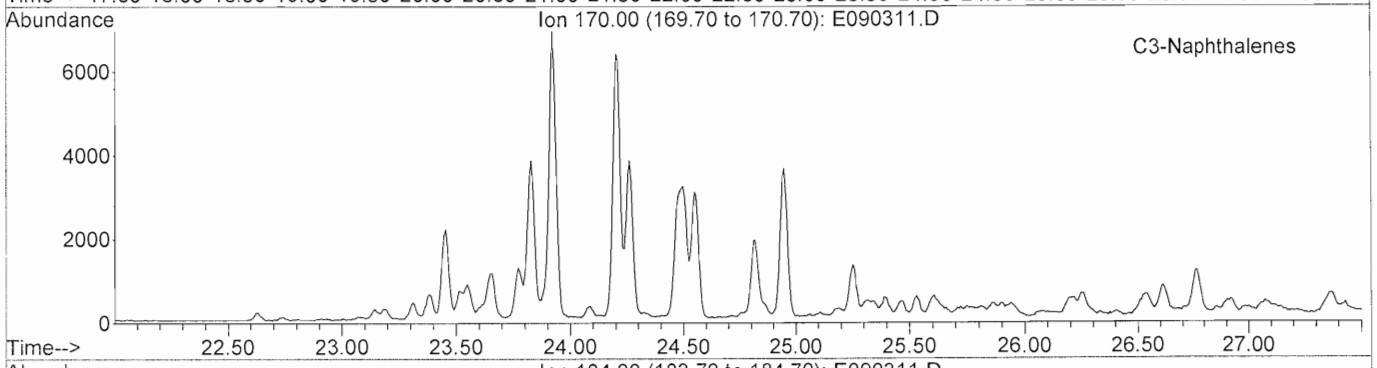
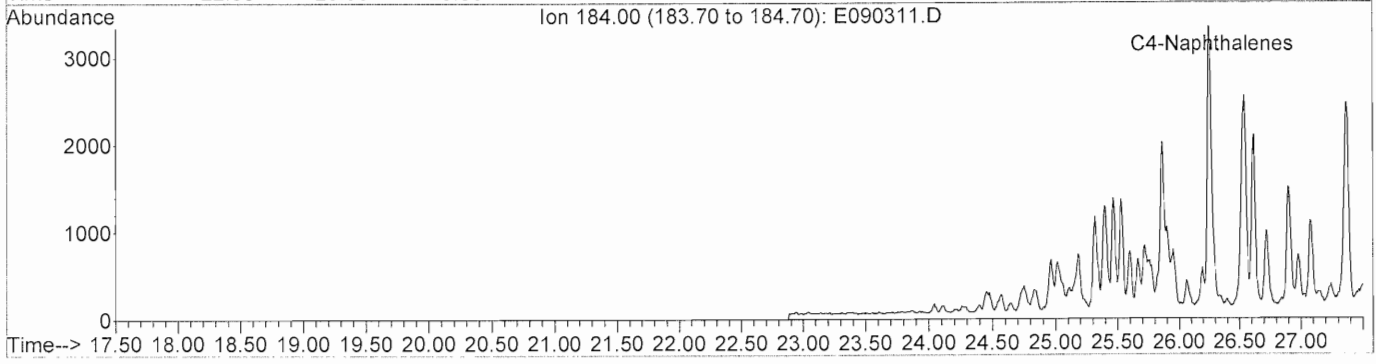
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
Misc Info: SD-90-02











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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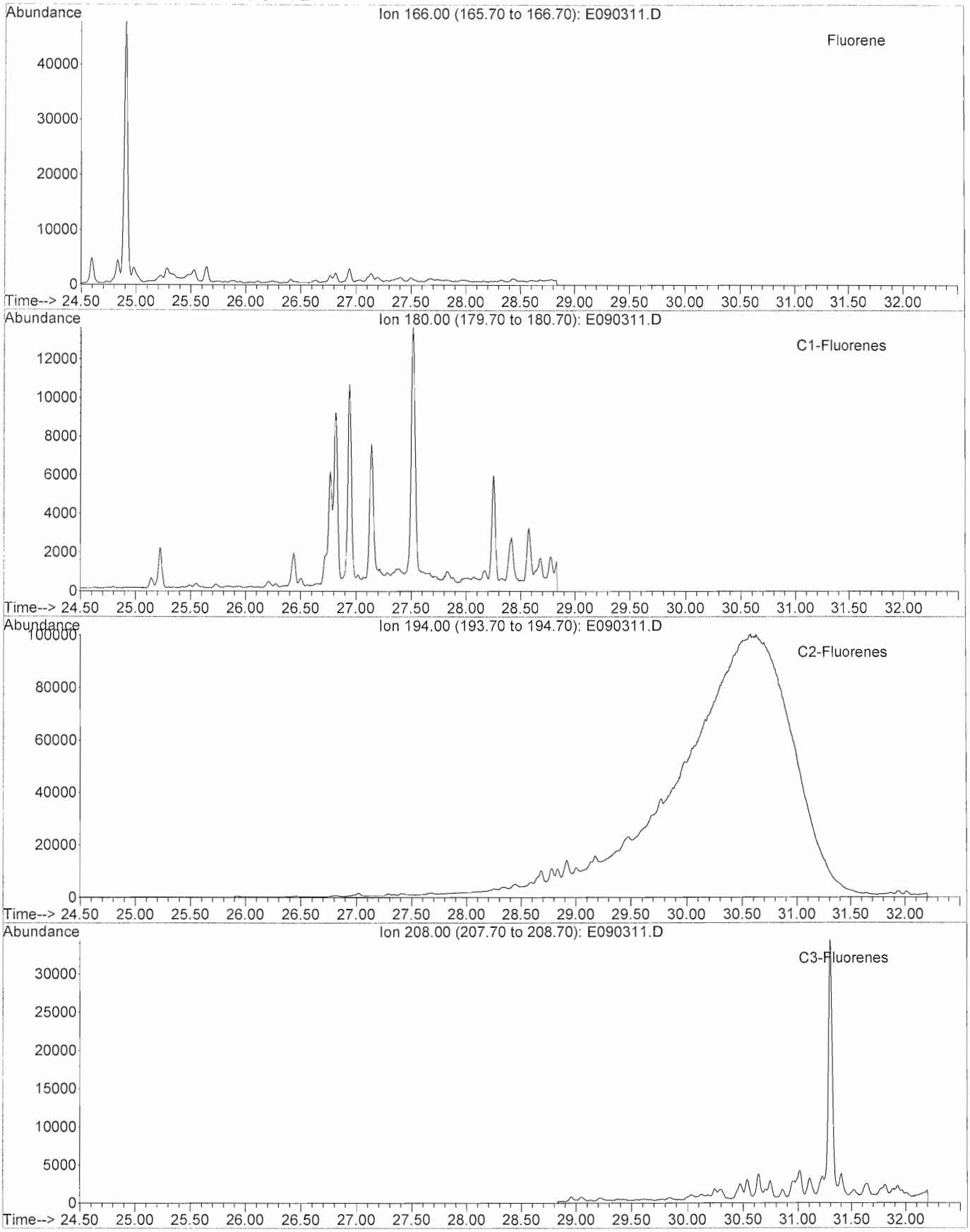
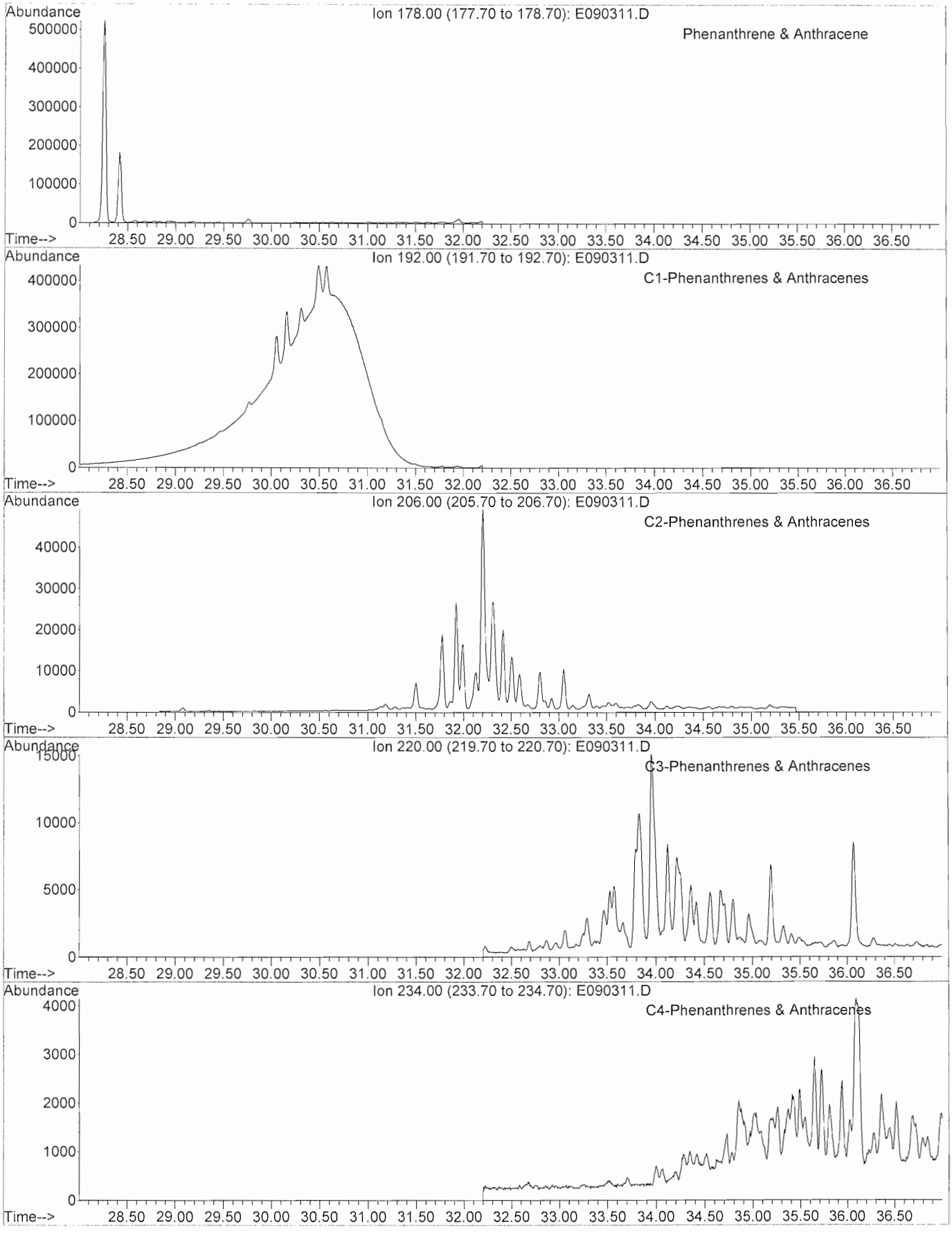
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
Misc Info: SD-90-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090311.D
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
Misc Info: SD-90-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090311.D
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
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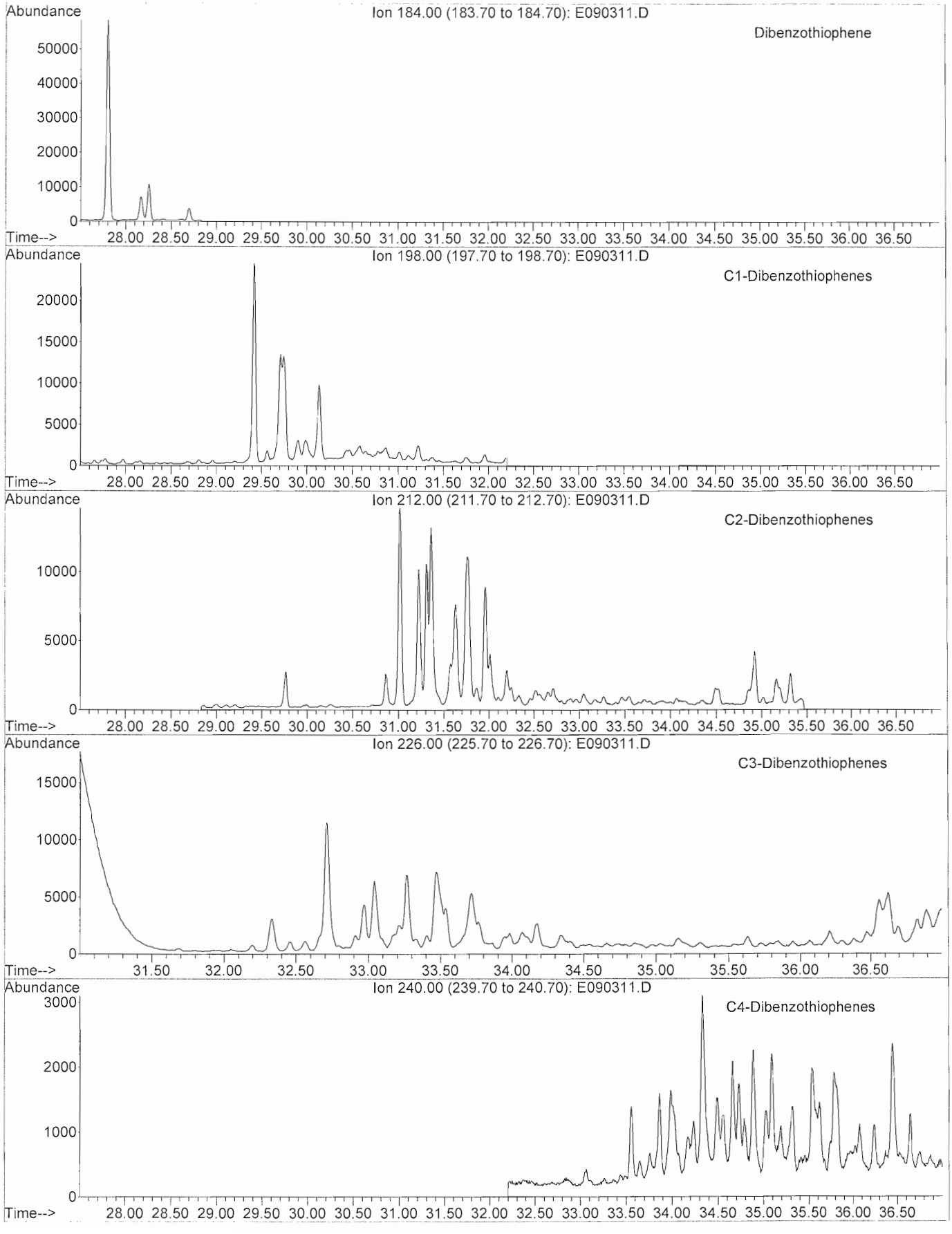

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
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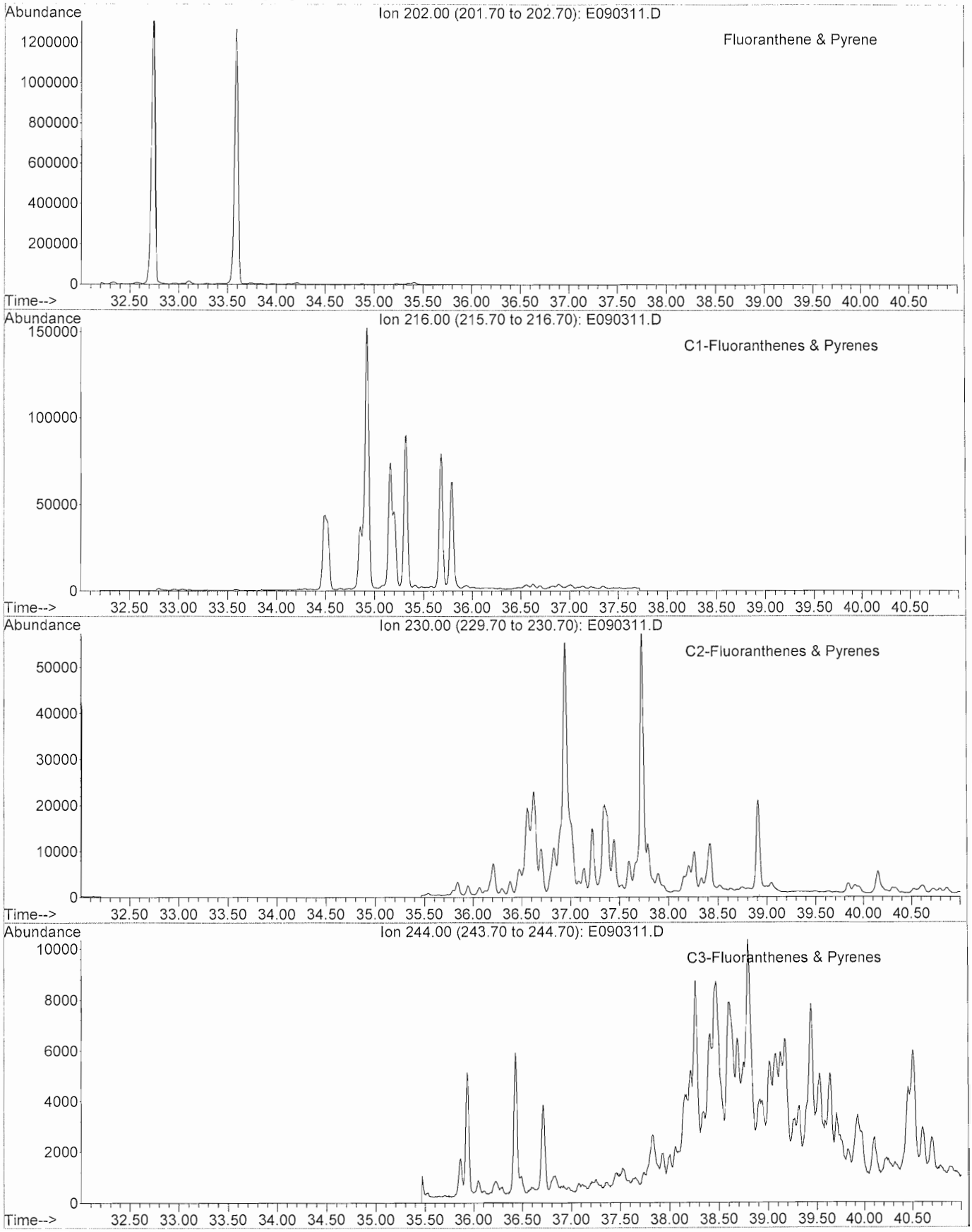

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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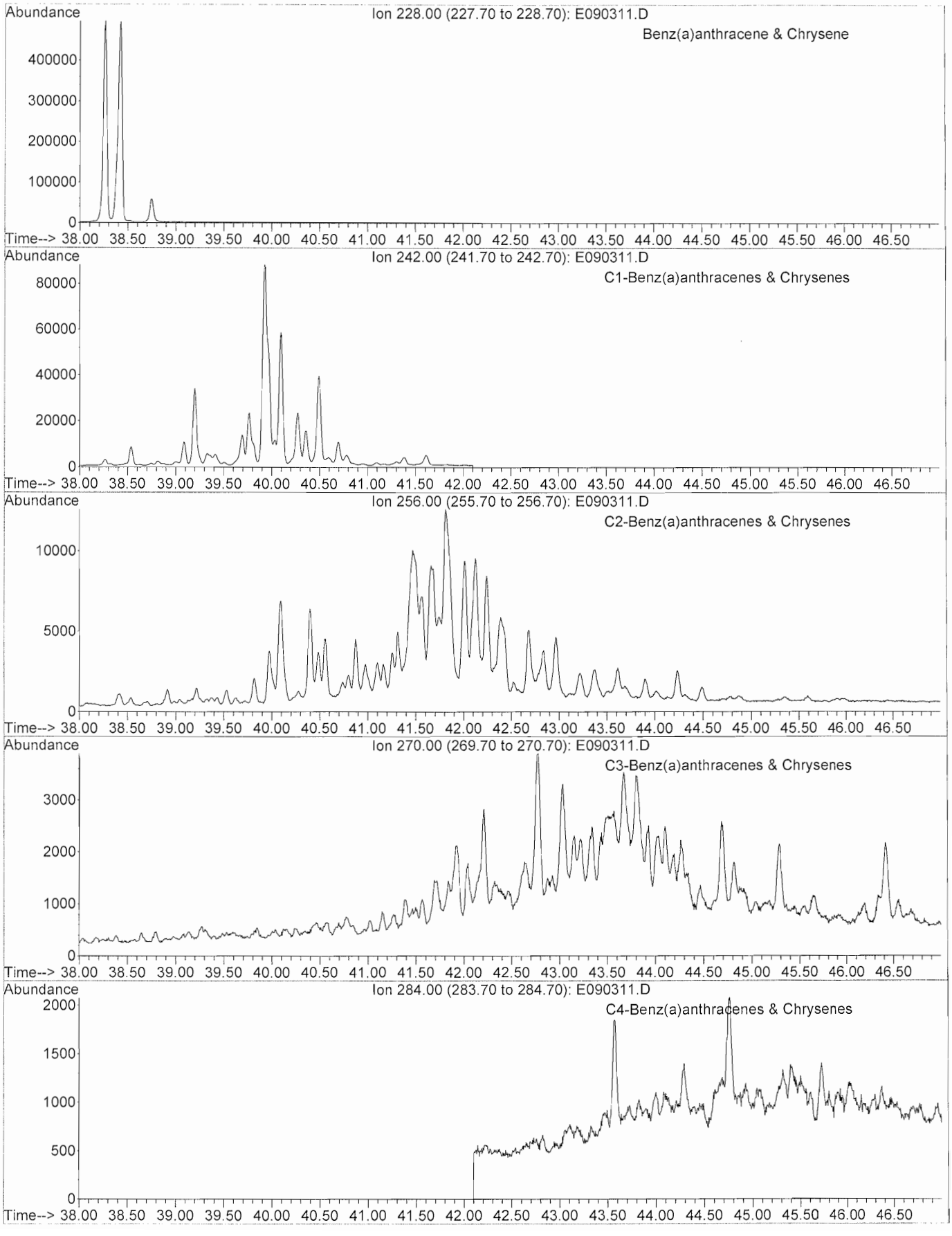
Date Acquired: 4 Sep 2010 3:03 am
Sample Name: TT100819-03
Misc Info: SD-90-02



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090311.D
Date Acquired: 4 Sep 2010 3:03 am
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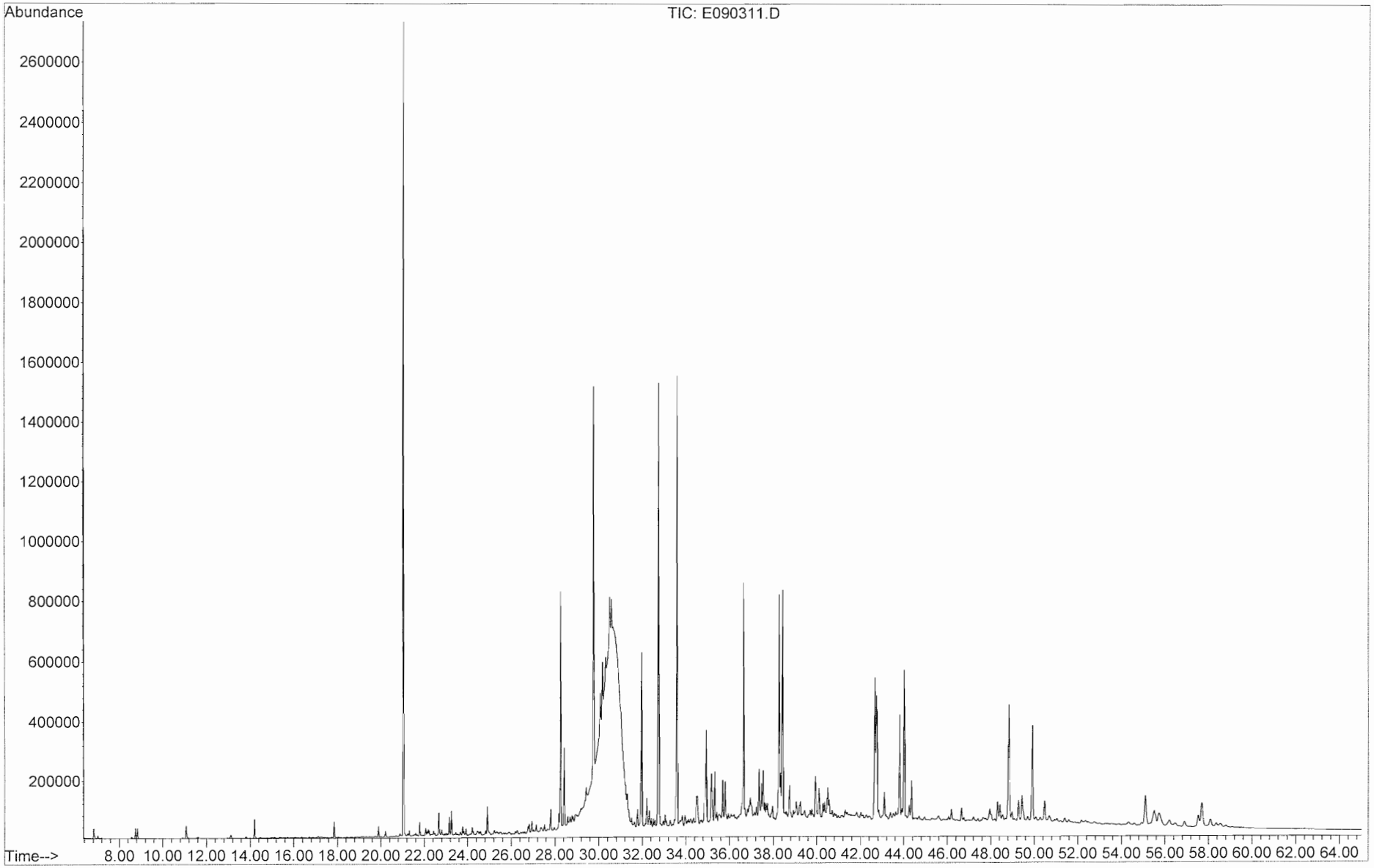
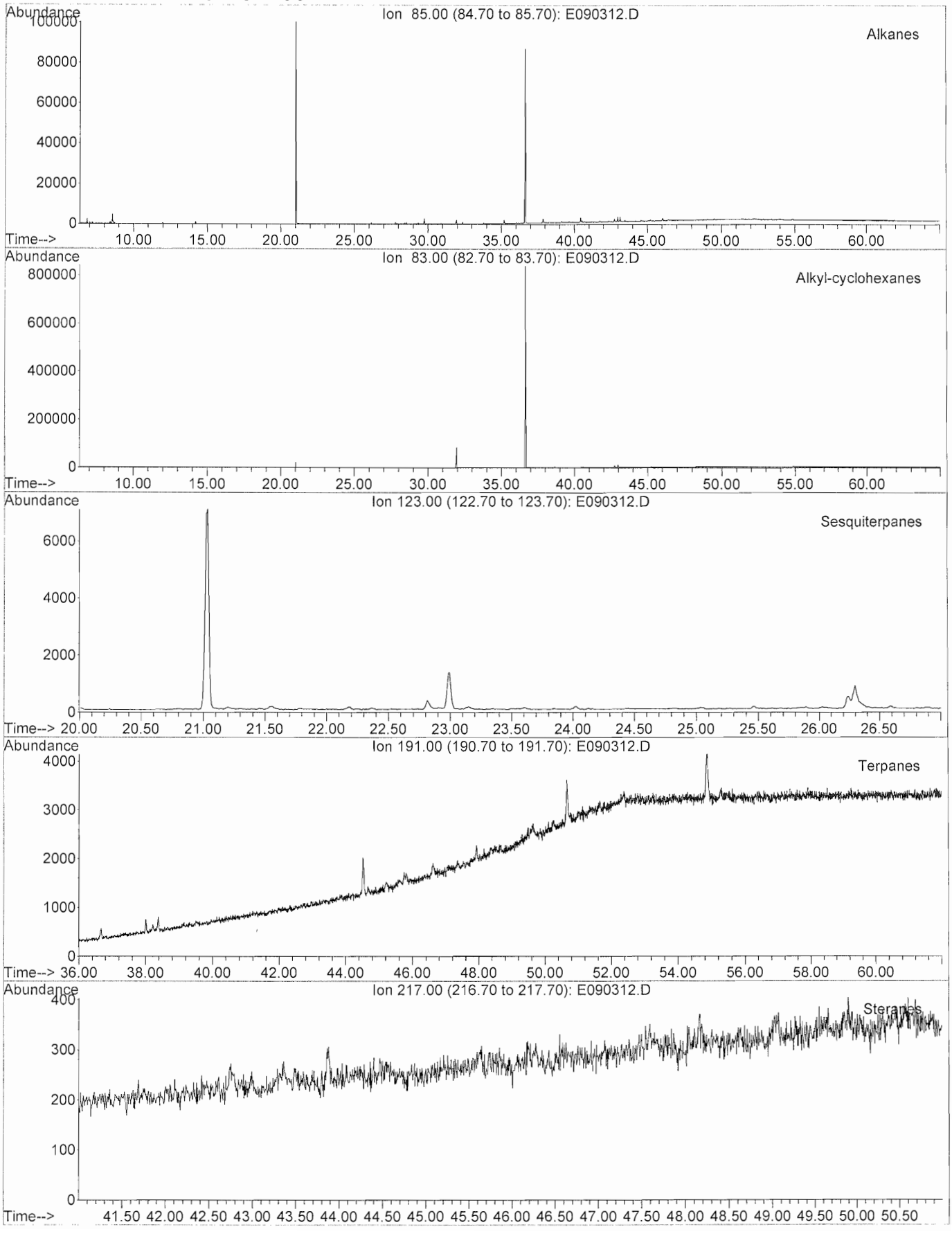
Misc Info: SD-90-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090312.D
Date Acquired: 4 Sep 2010 4:23 am
Sample Name: TT100819-04
Misc Info: SD-94-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090312.D
Date Acquired: 4 Sep 2010 4:23 am
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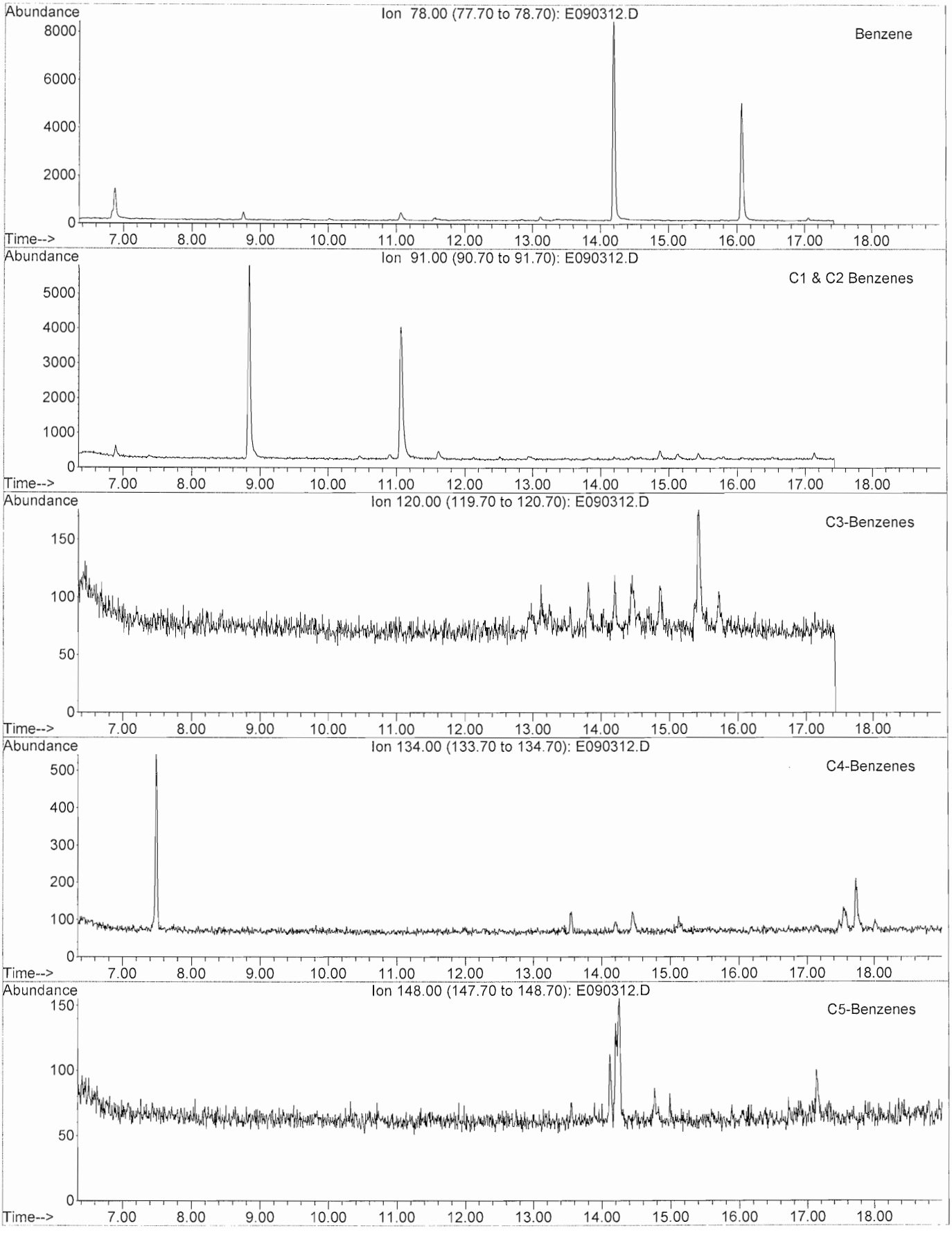

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090312.D
Date Acquired: 4 Sep 2010 4:23 am
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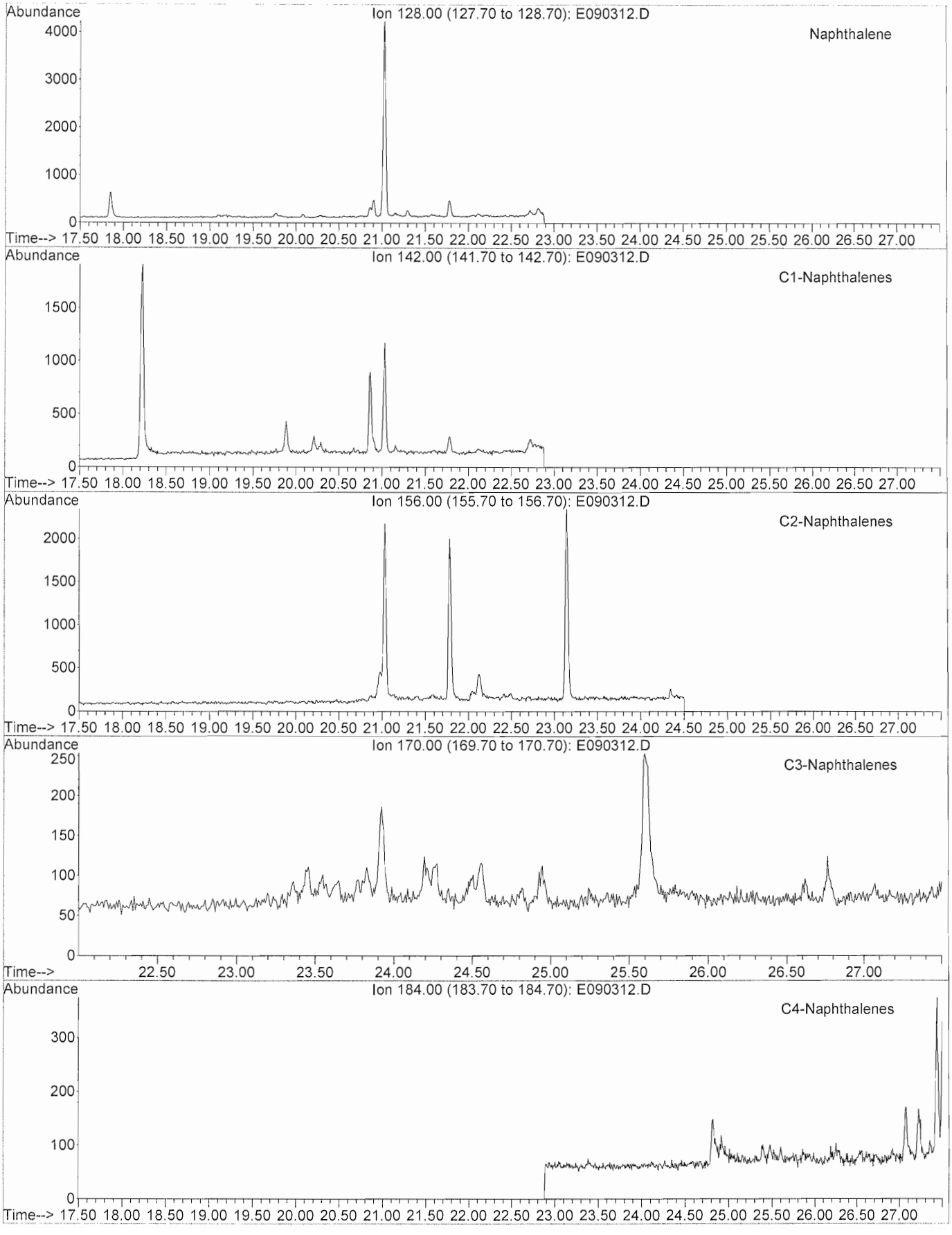
Misc Info: SD-94-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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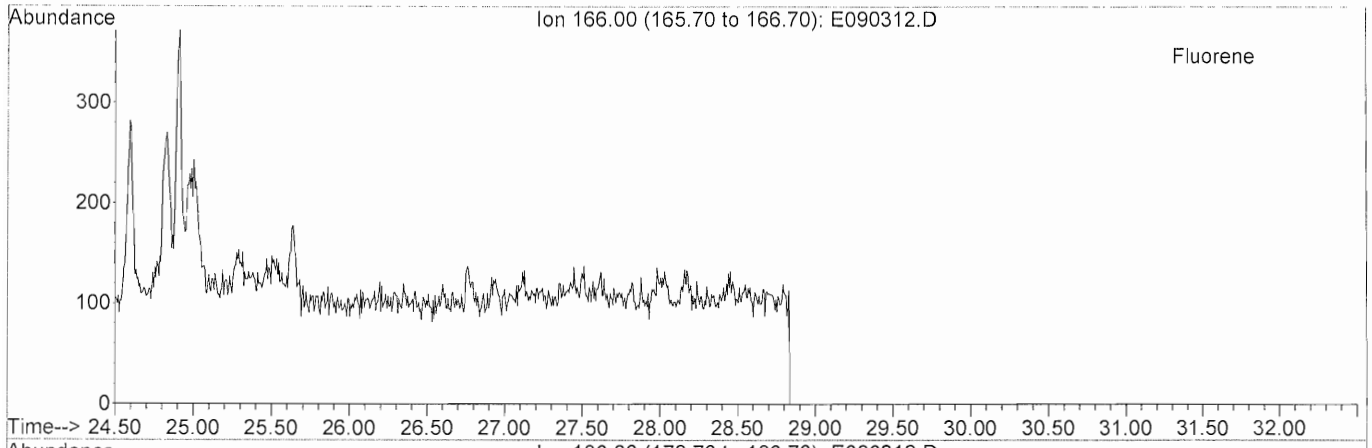
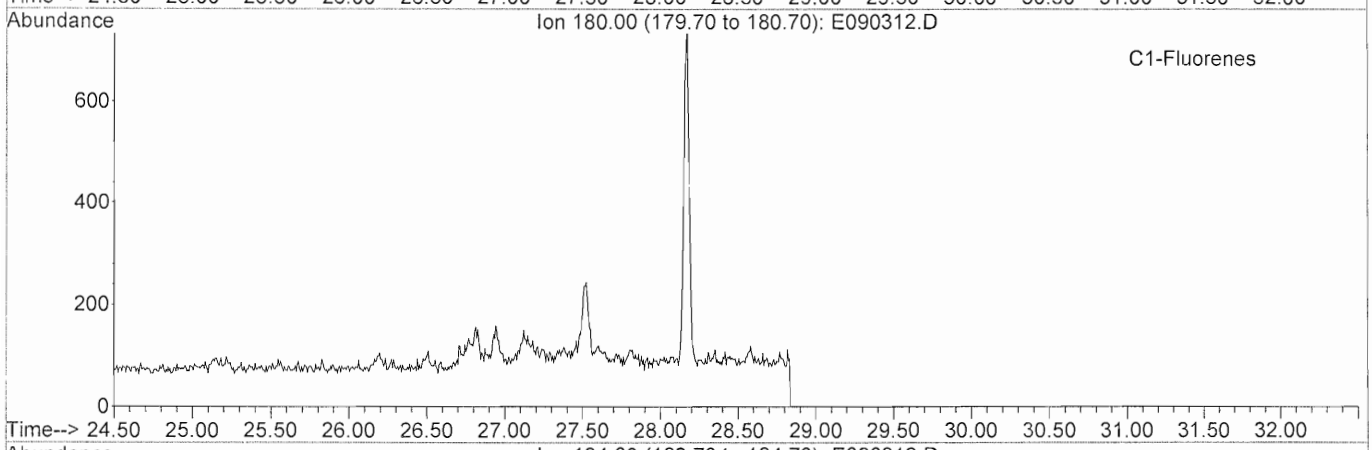
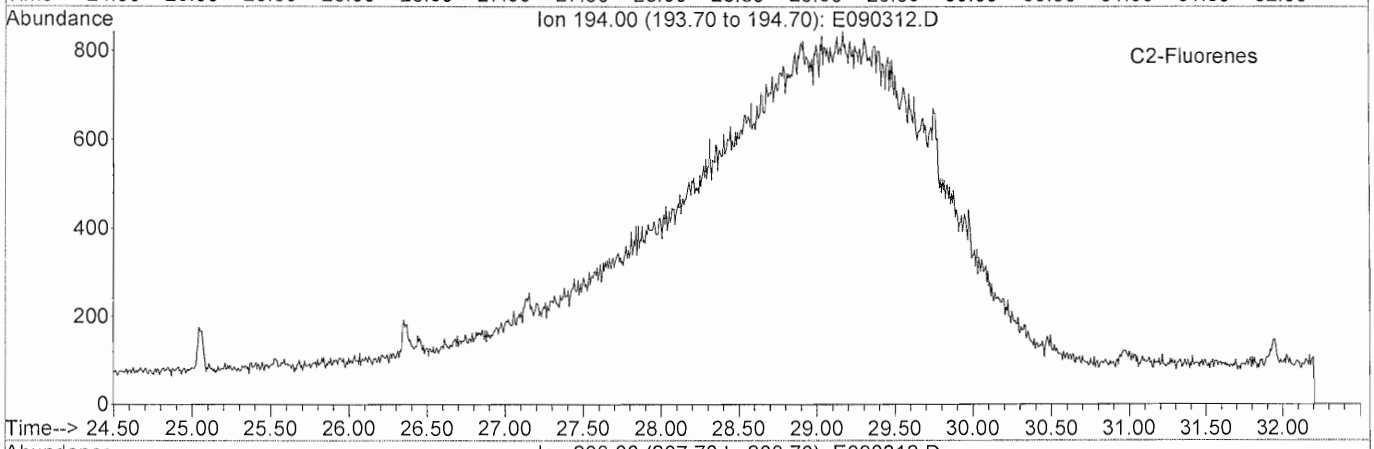
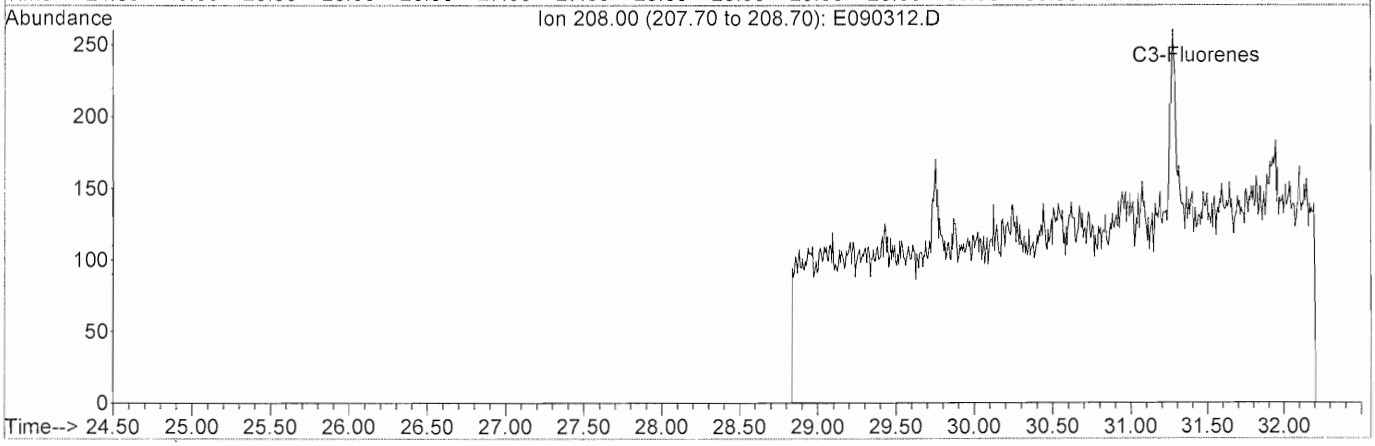
Date Acquired: 4 Sep 2010 4:23 am
Sample Name: TT100819-04
Misc Info: SD-94-SS









META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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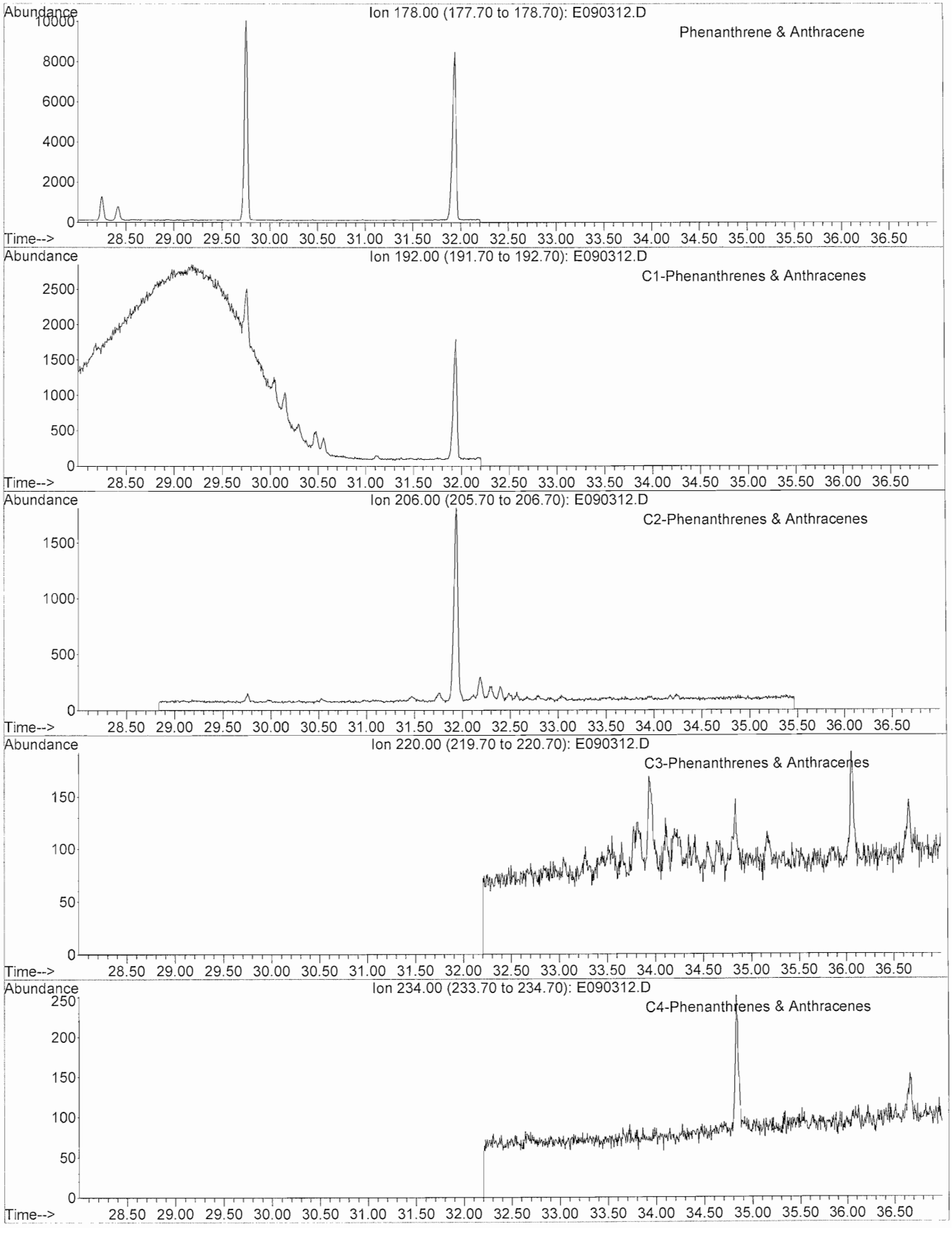

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090312.D
Date Acquired: 4 Sep 2010 4:23 am
Sample Name: TT100819-04
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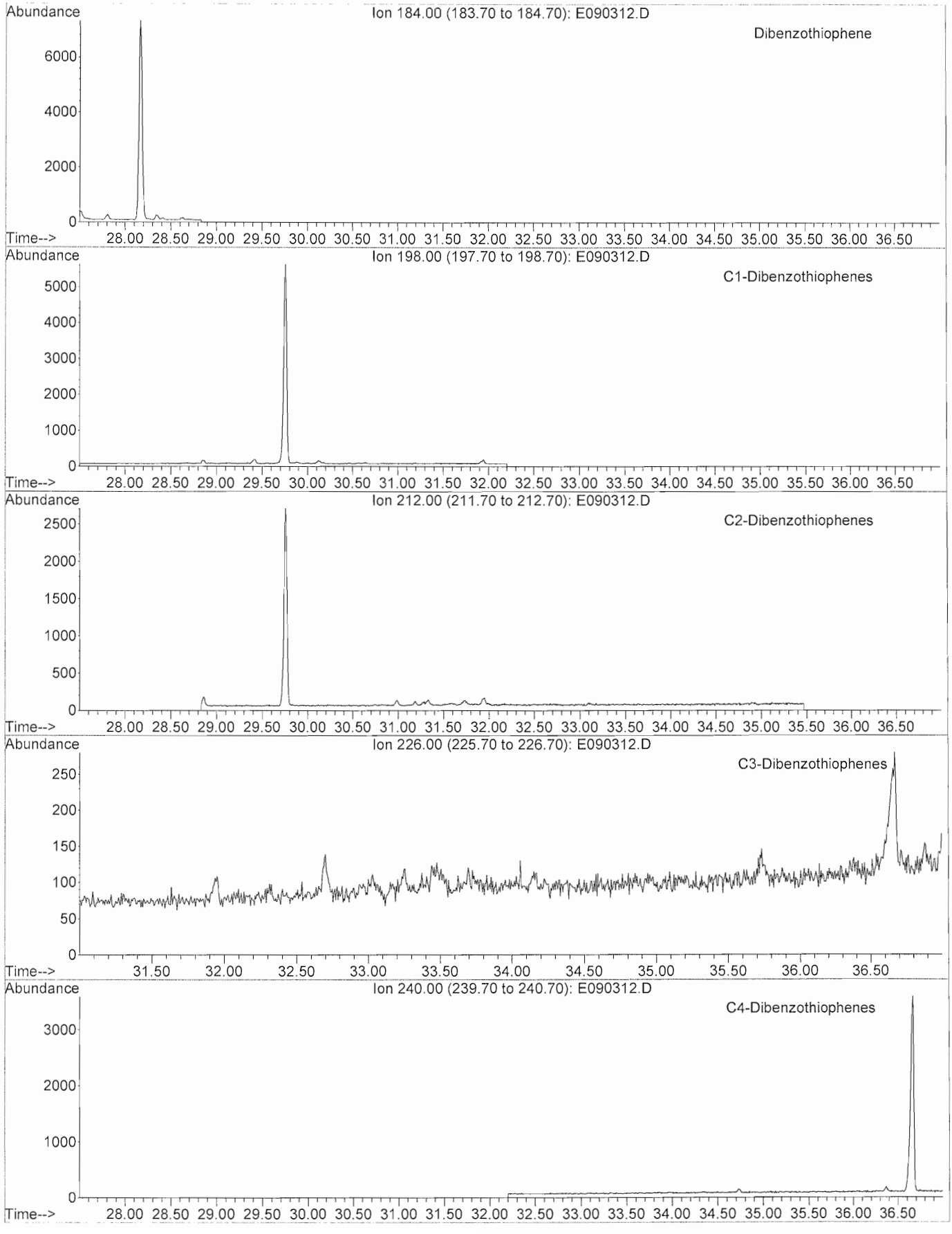

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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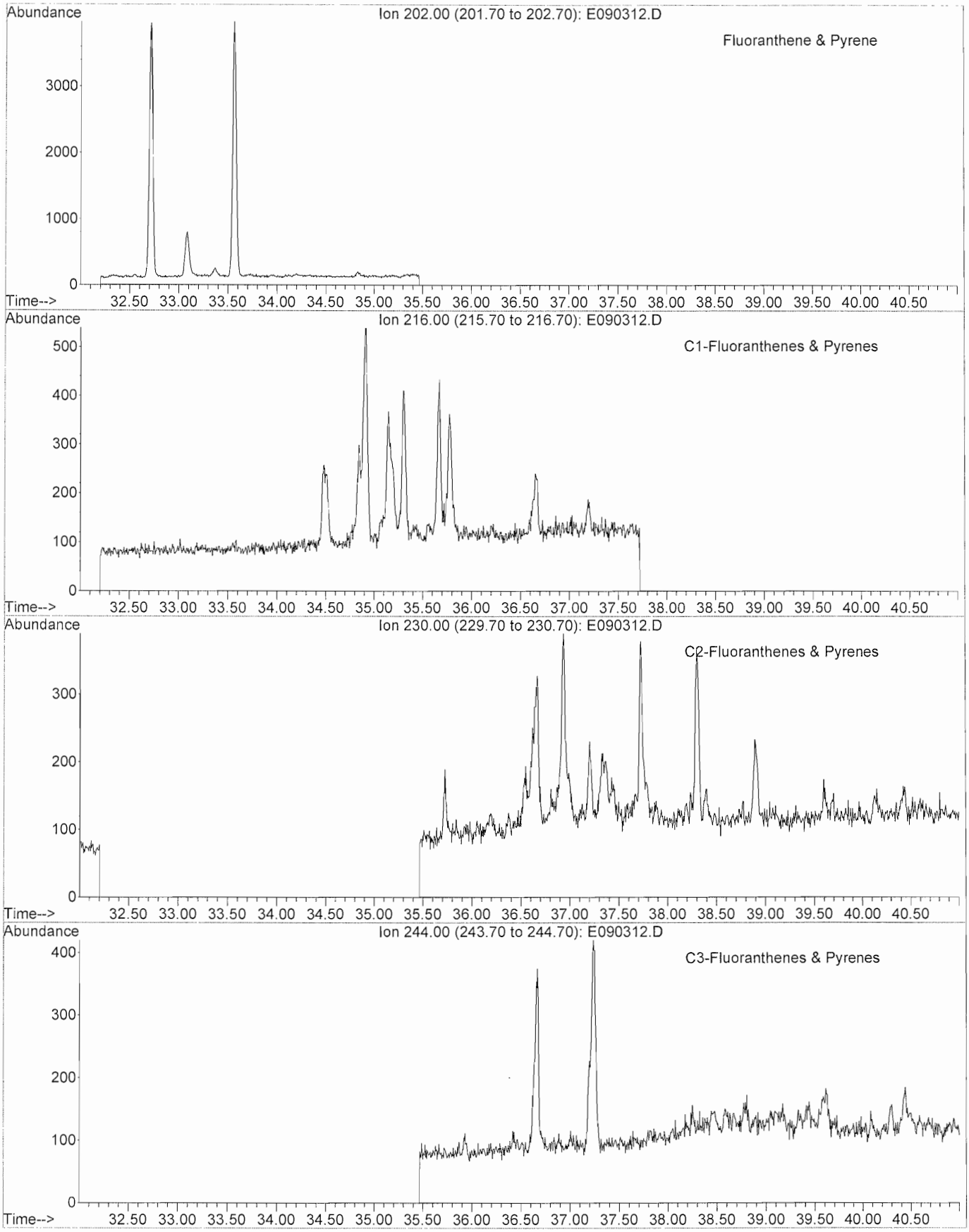

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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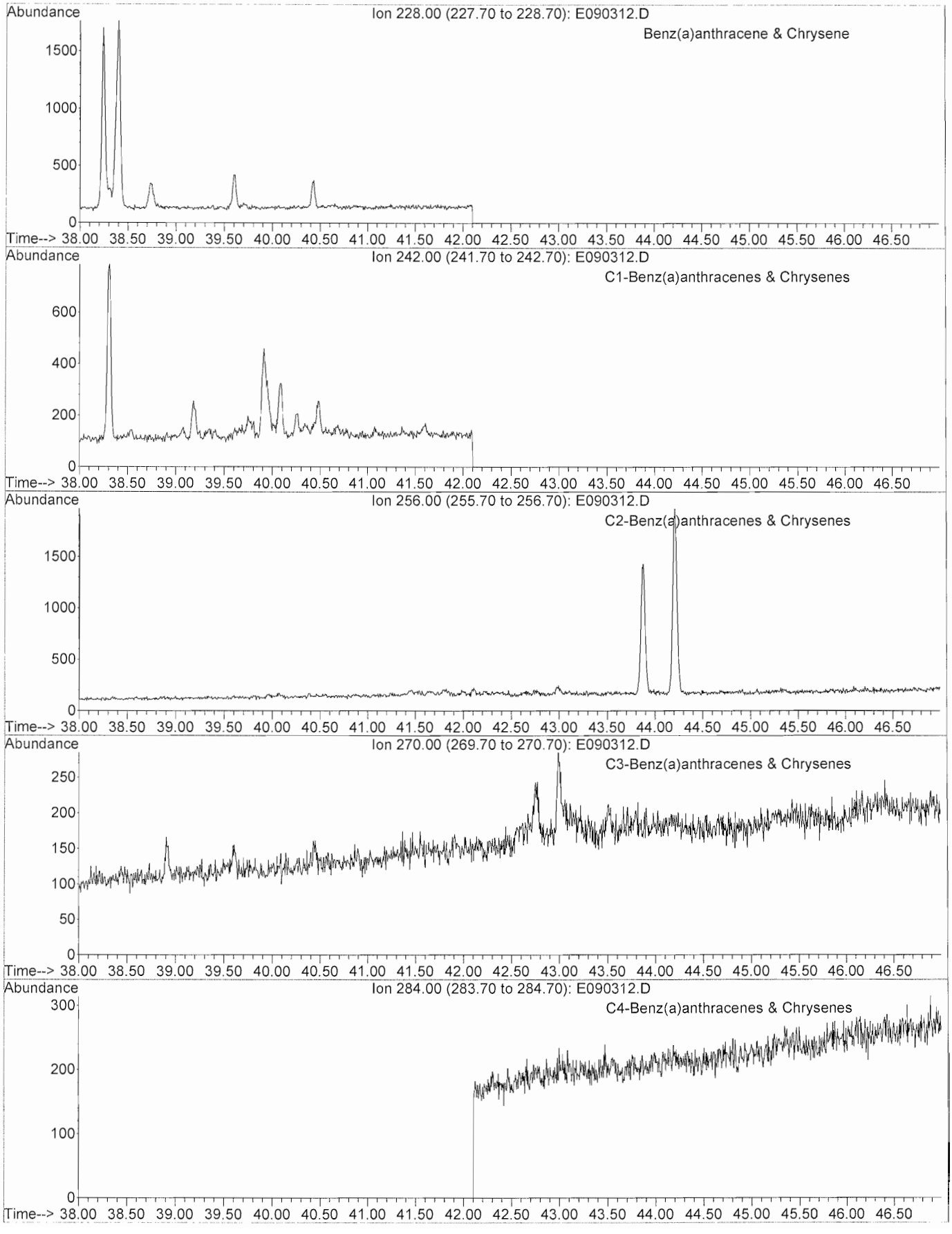
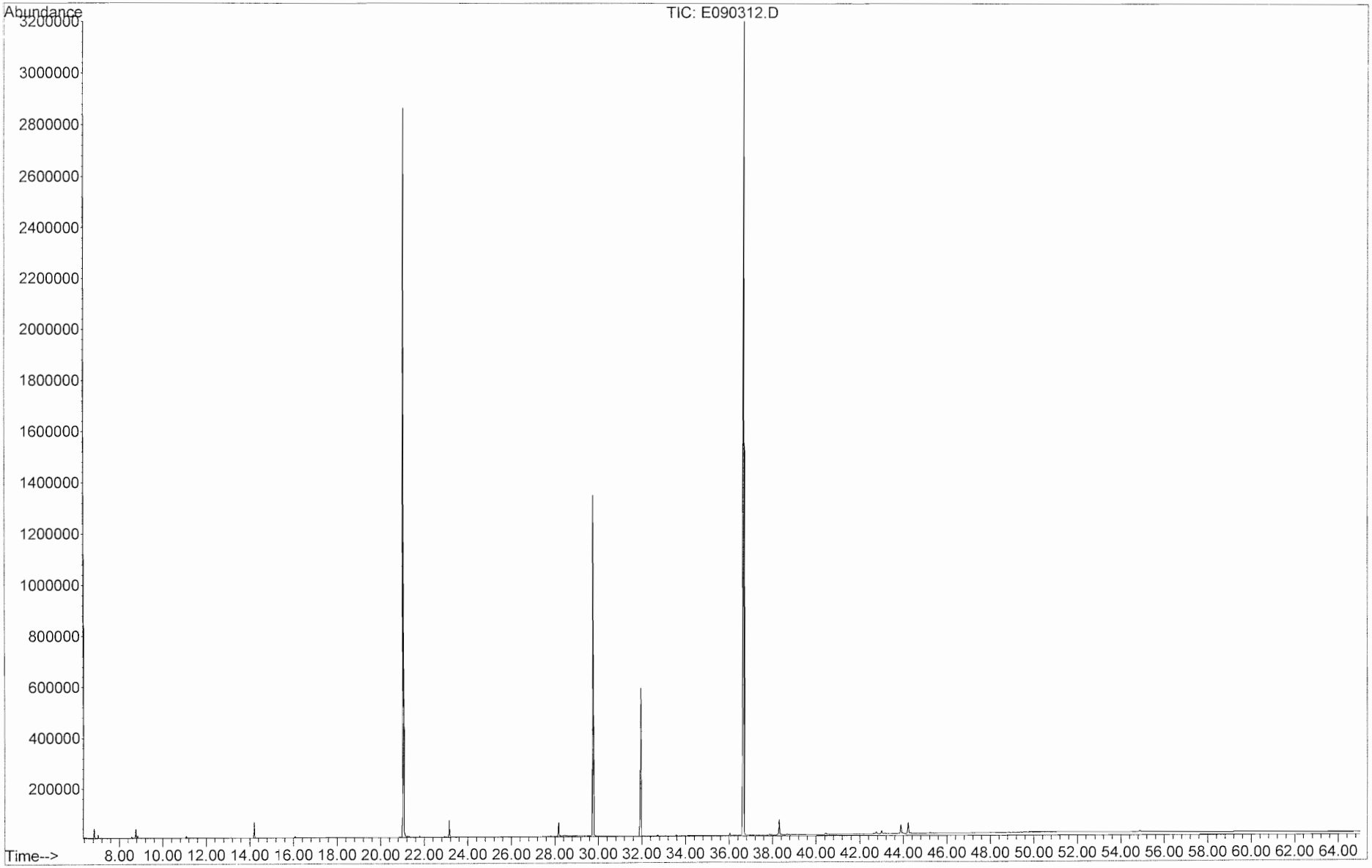


META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

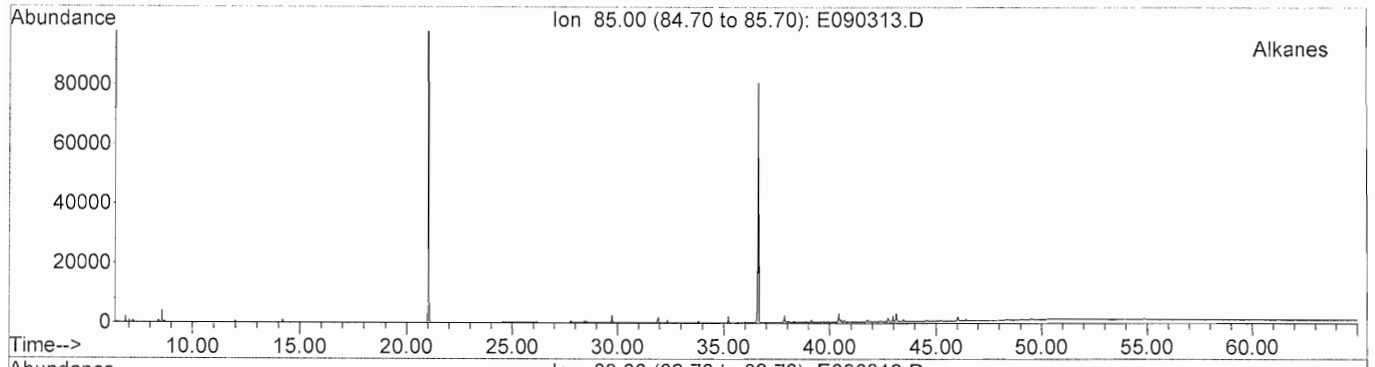
File: J:\1\DATA\E100903\E090312.D
Date Acquired: 4 Sep 2010 4:23 am
Sample Name: TT100819-04
Misc Info: SD-94-SS

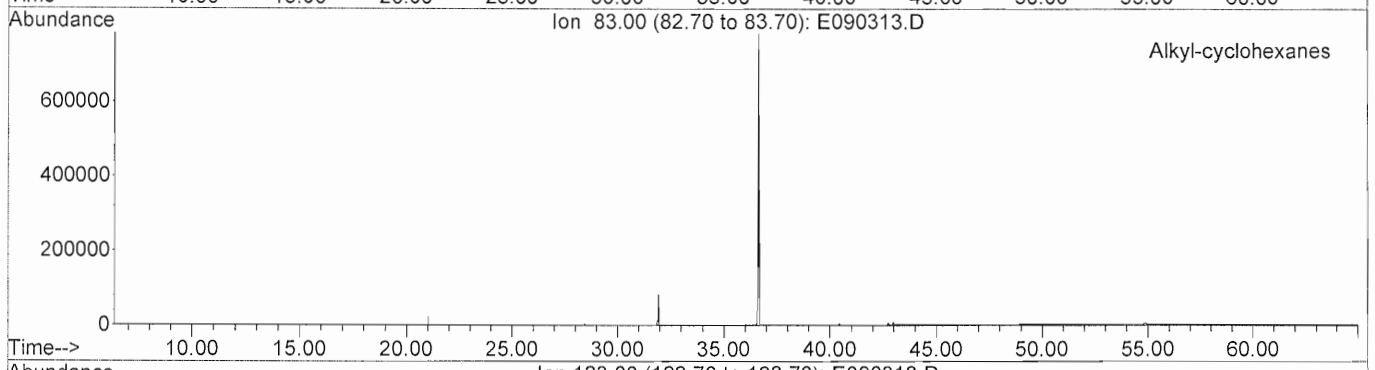


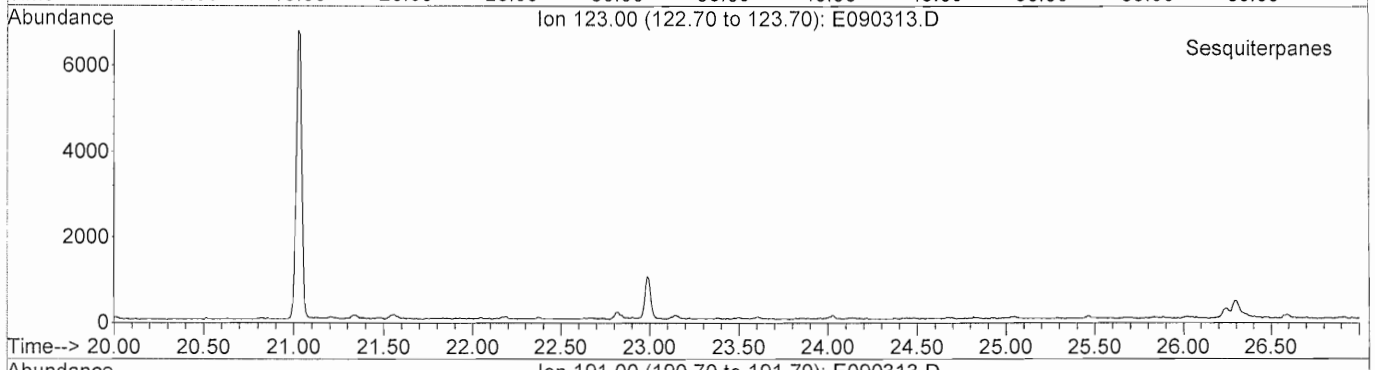
META Environmental, Inc.

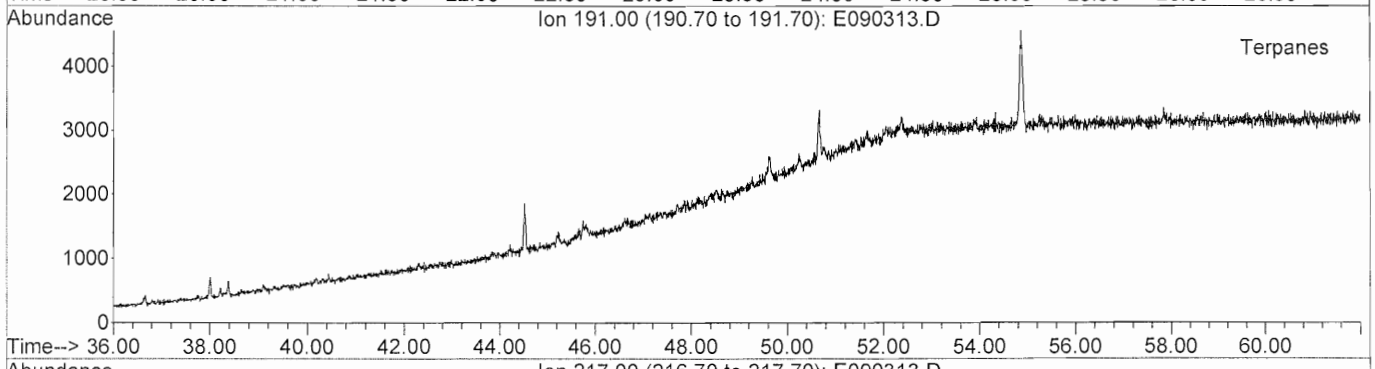
GC/MS EXTRACTED ION CHROMATOGRAM

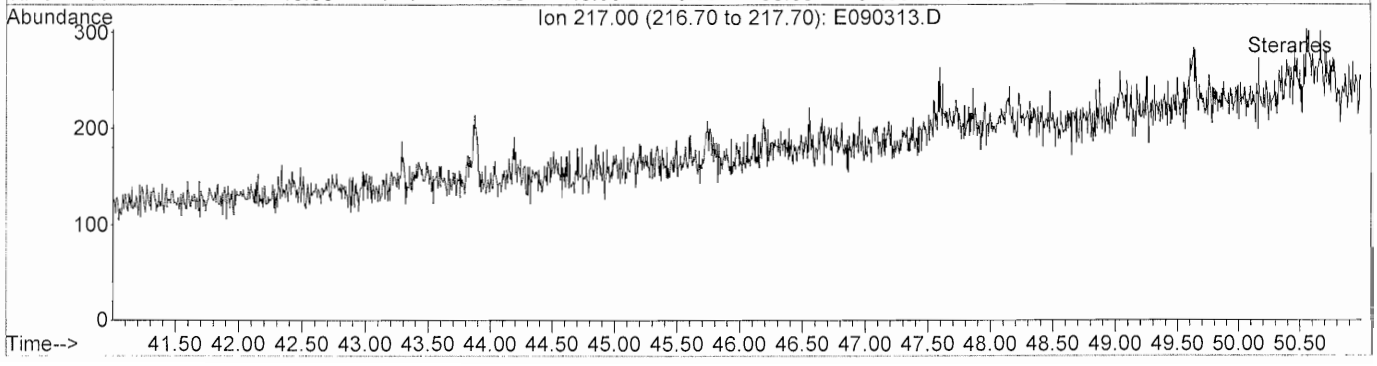
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01







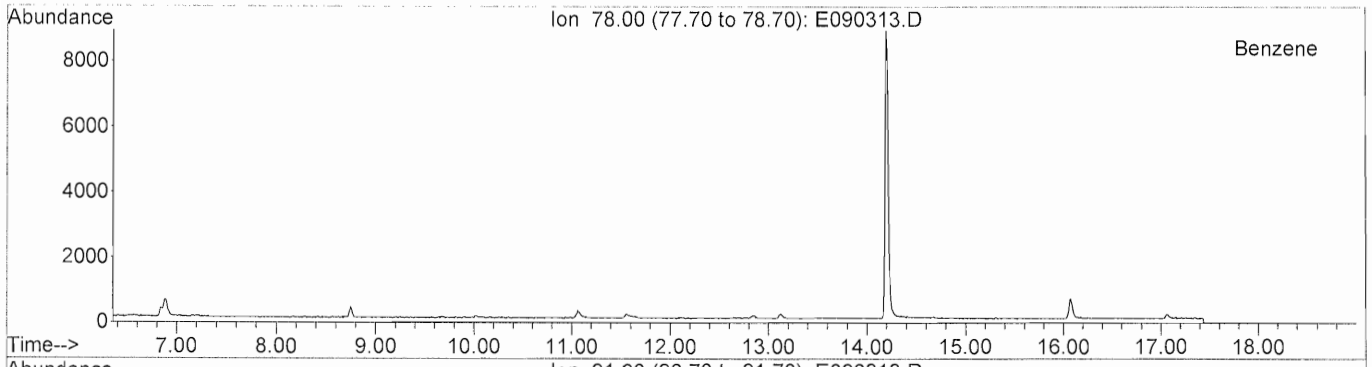


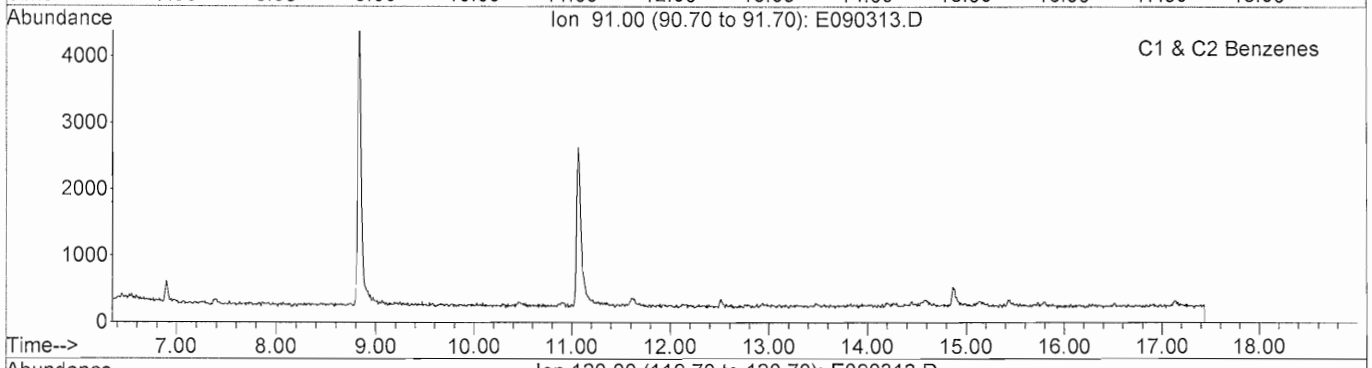


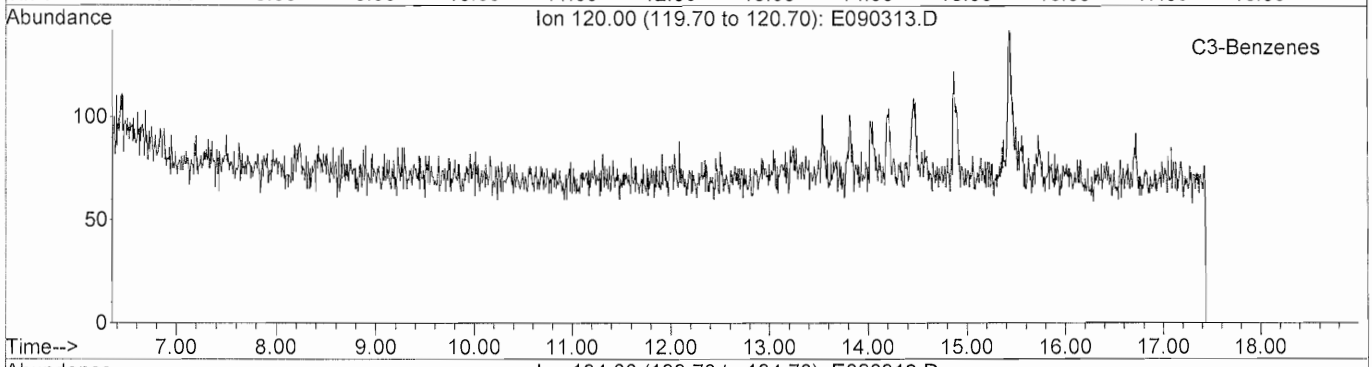
META Environmental, Inc.

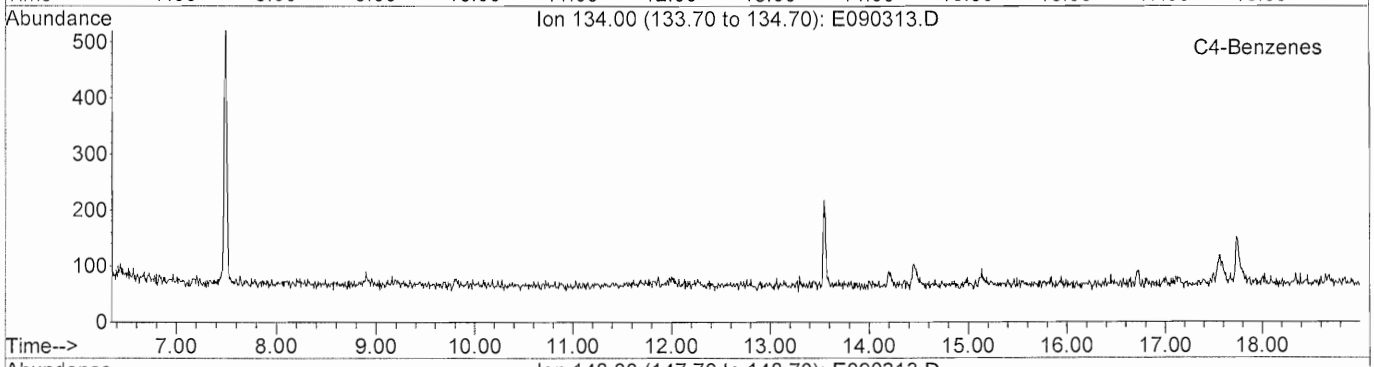
GC/MS EXTRACTED ION CHROMATOGRAM

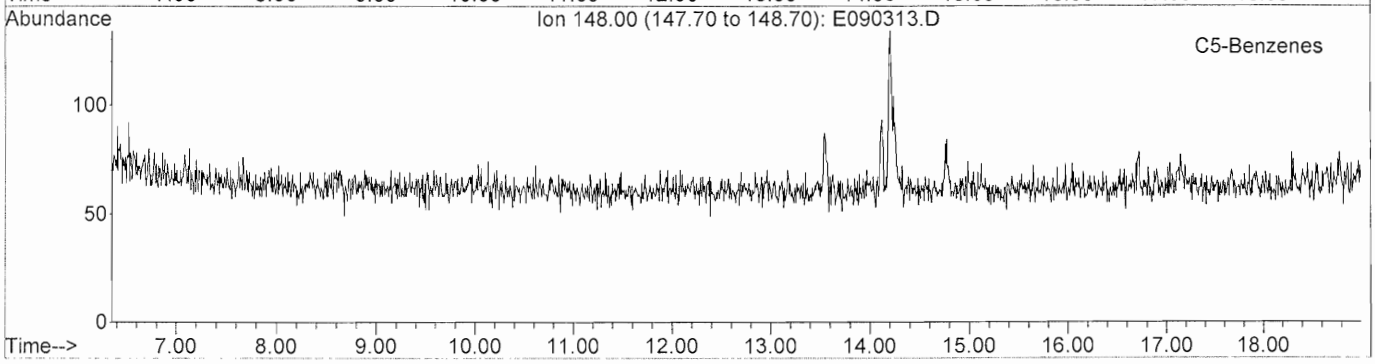
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01







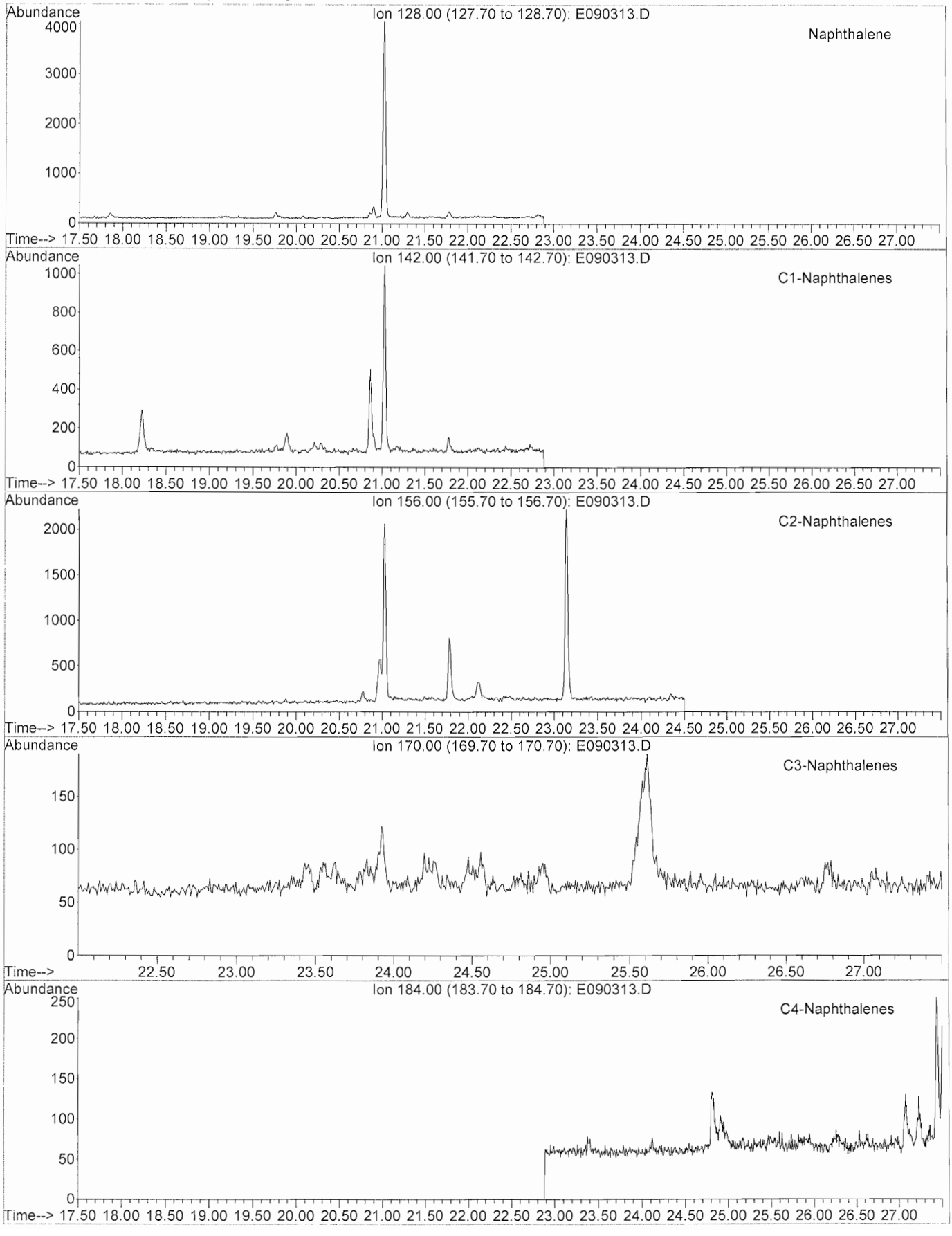




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

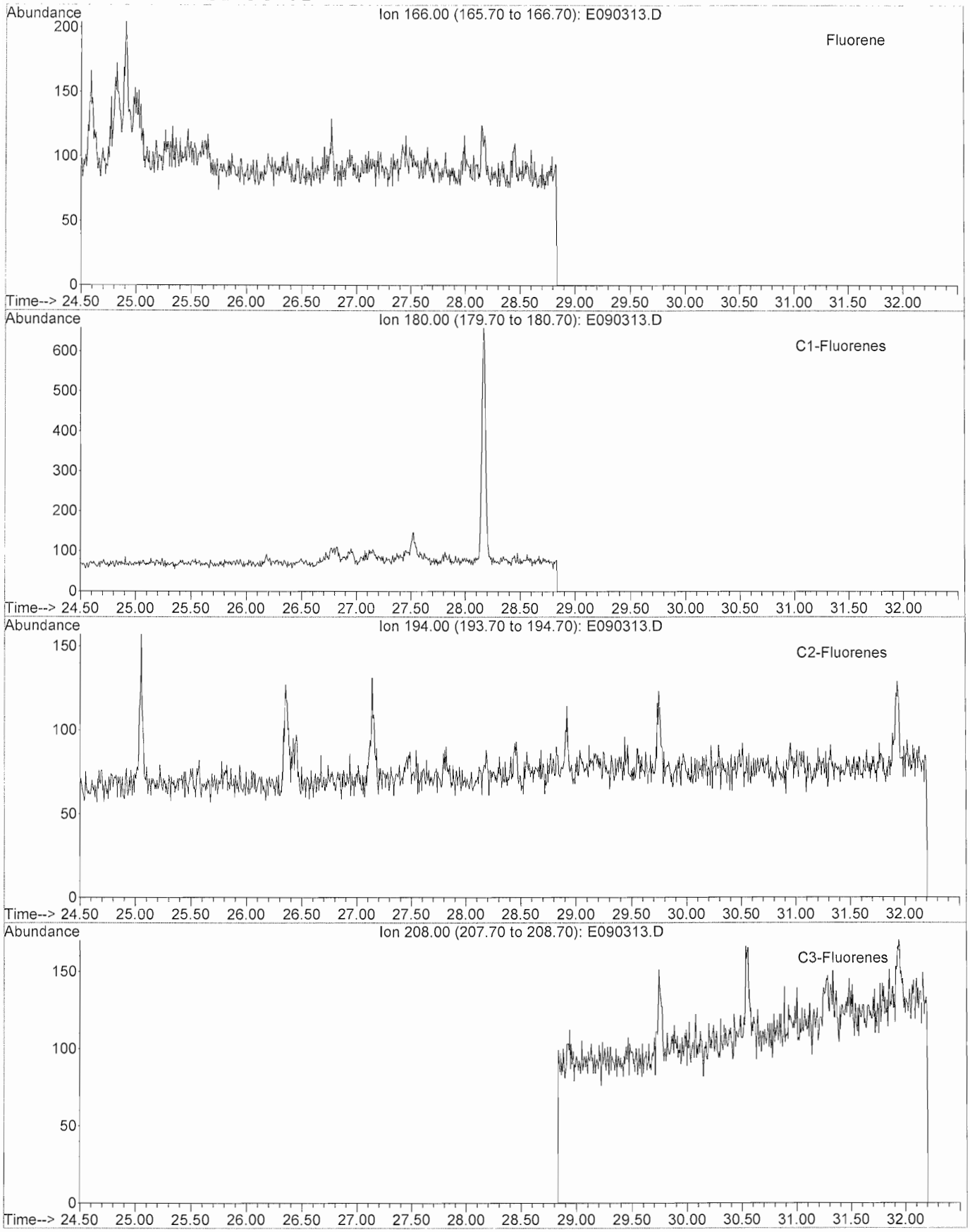
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

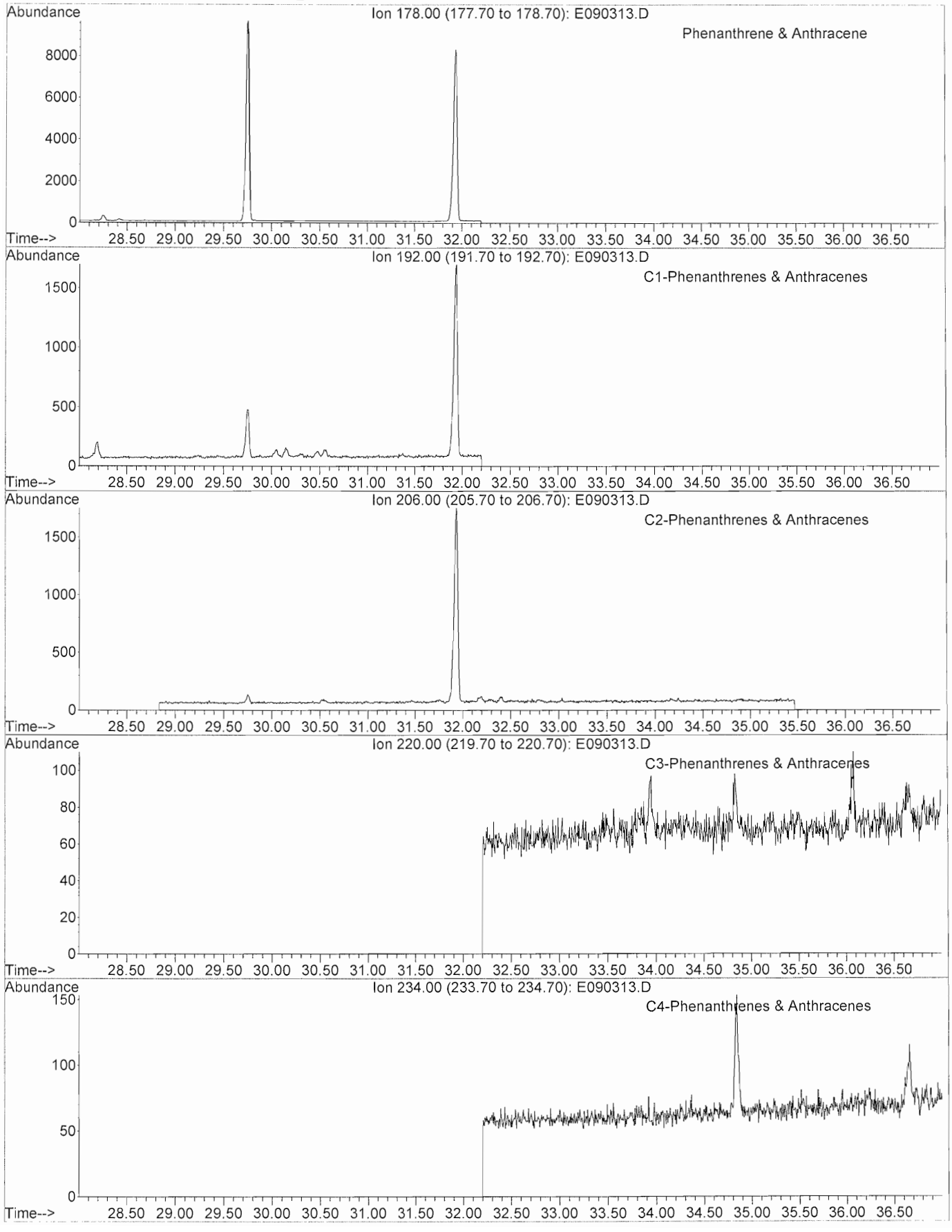
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

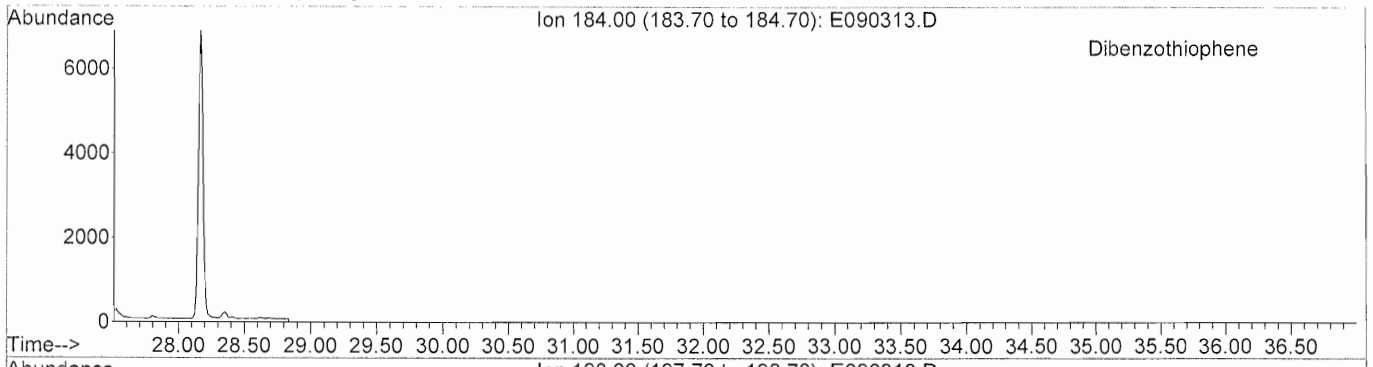
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01

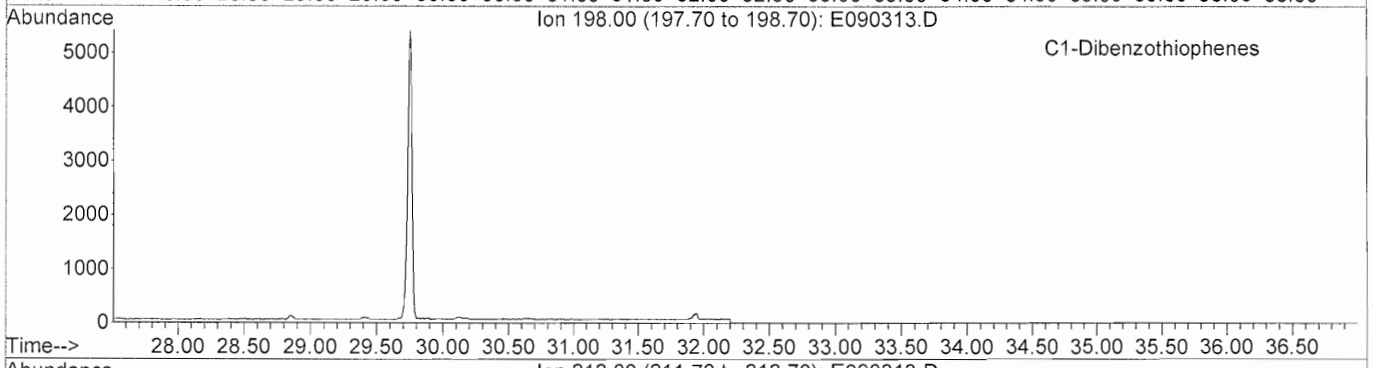


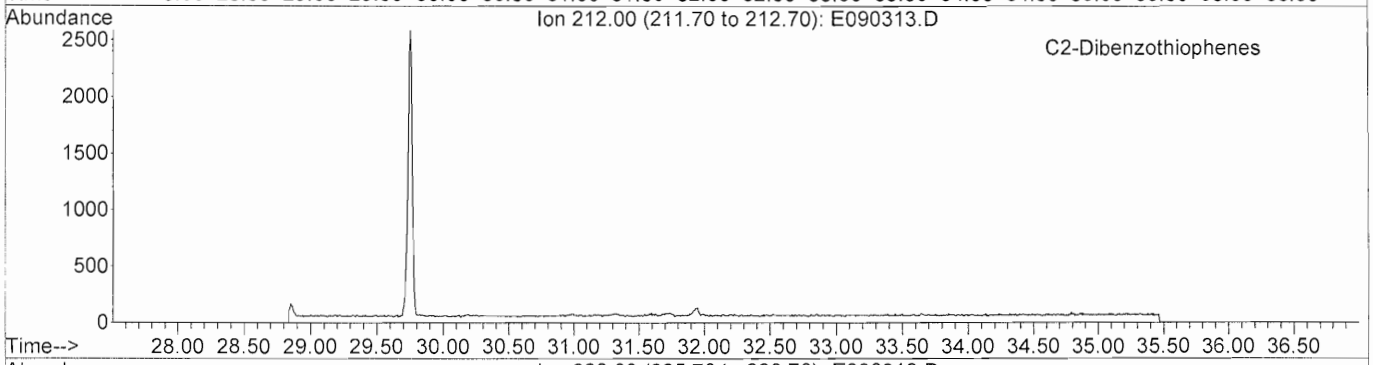
META Environmental, Inc.

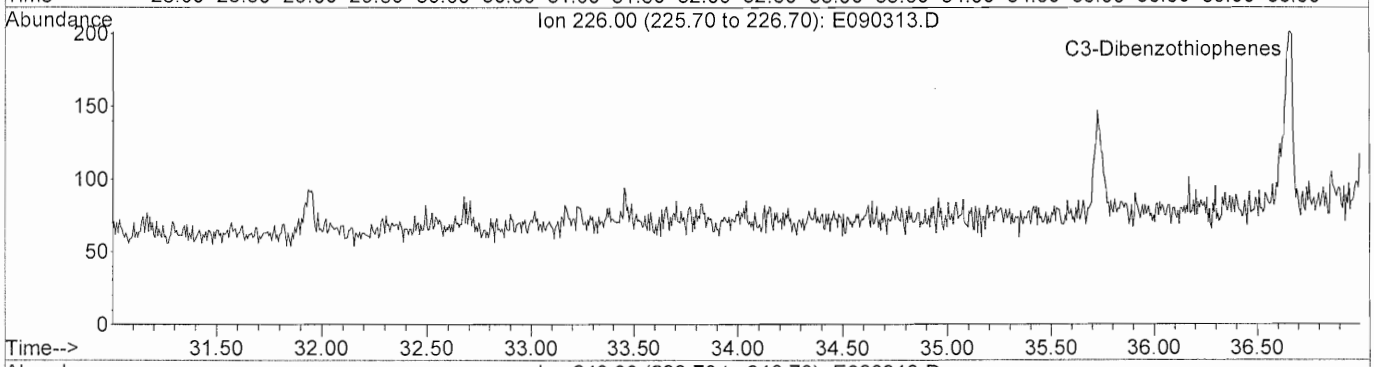
GC/MS EXTRACTED ION CHROMATOGRAM

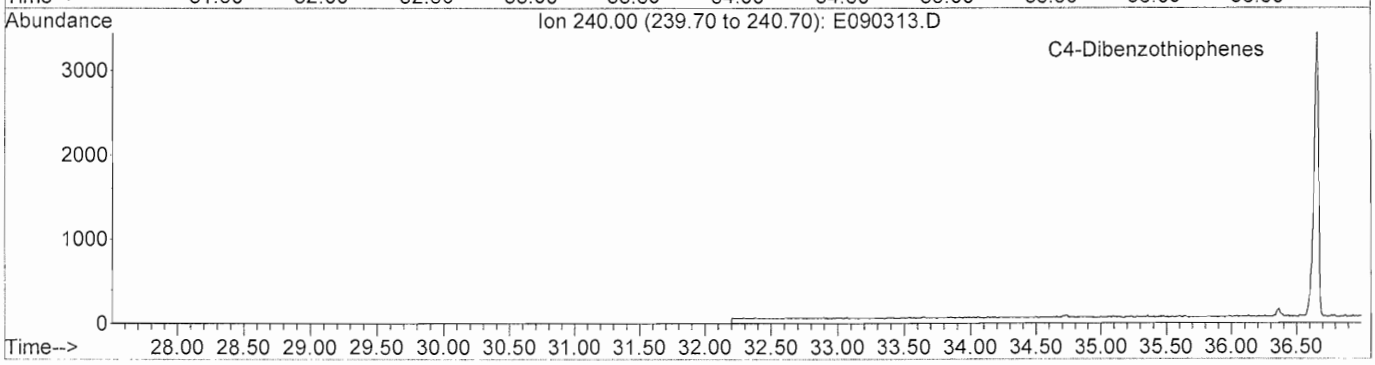
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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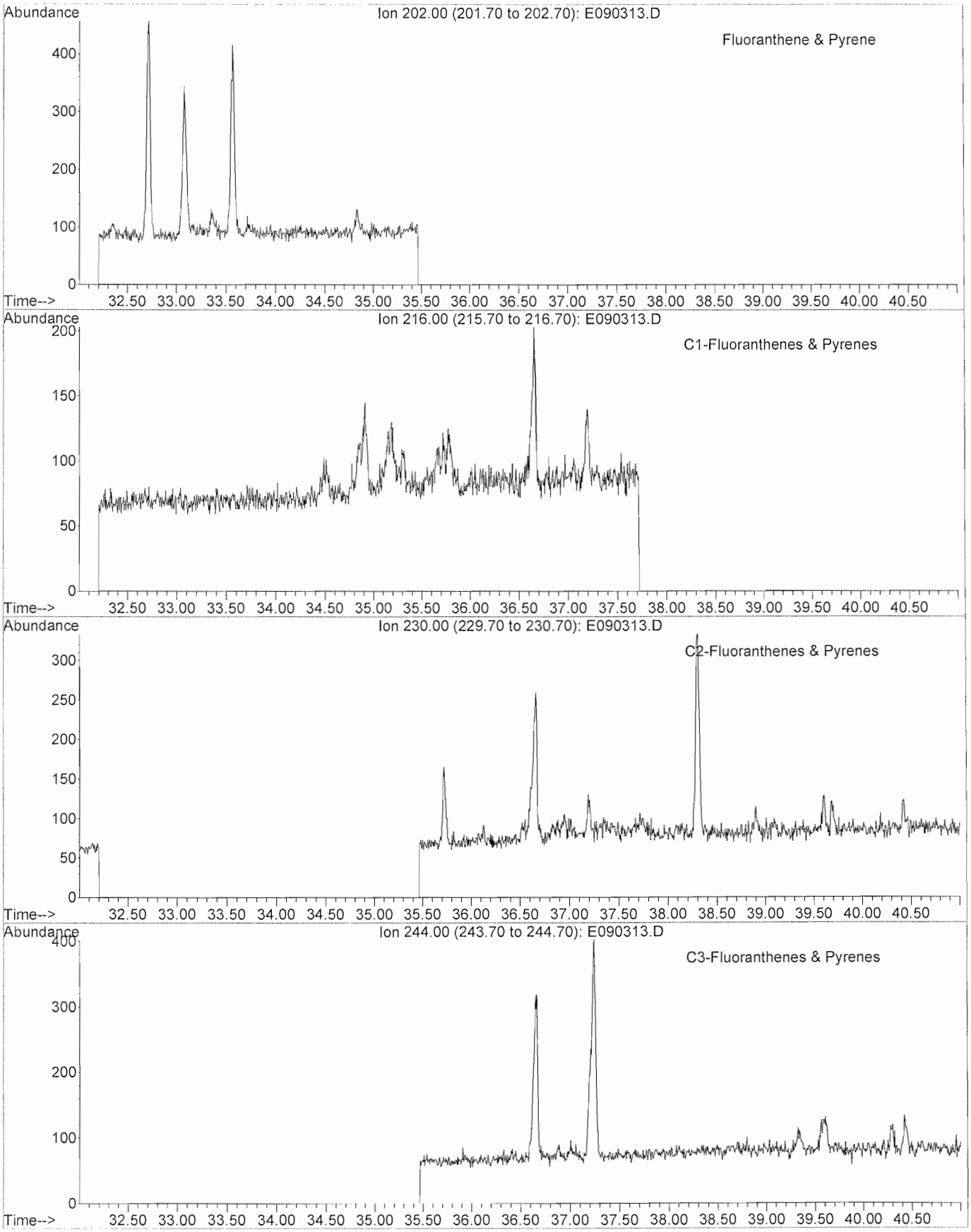
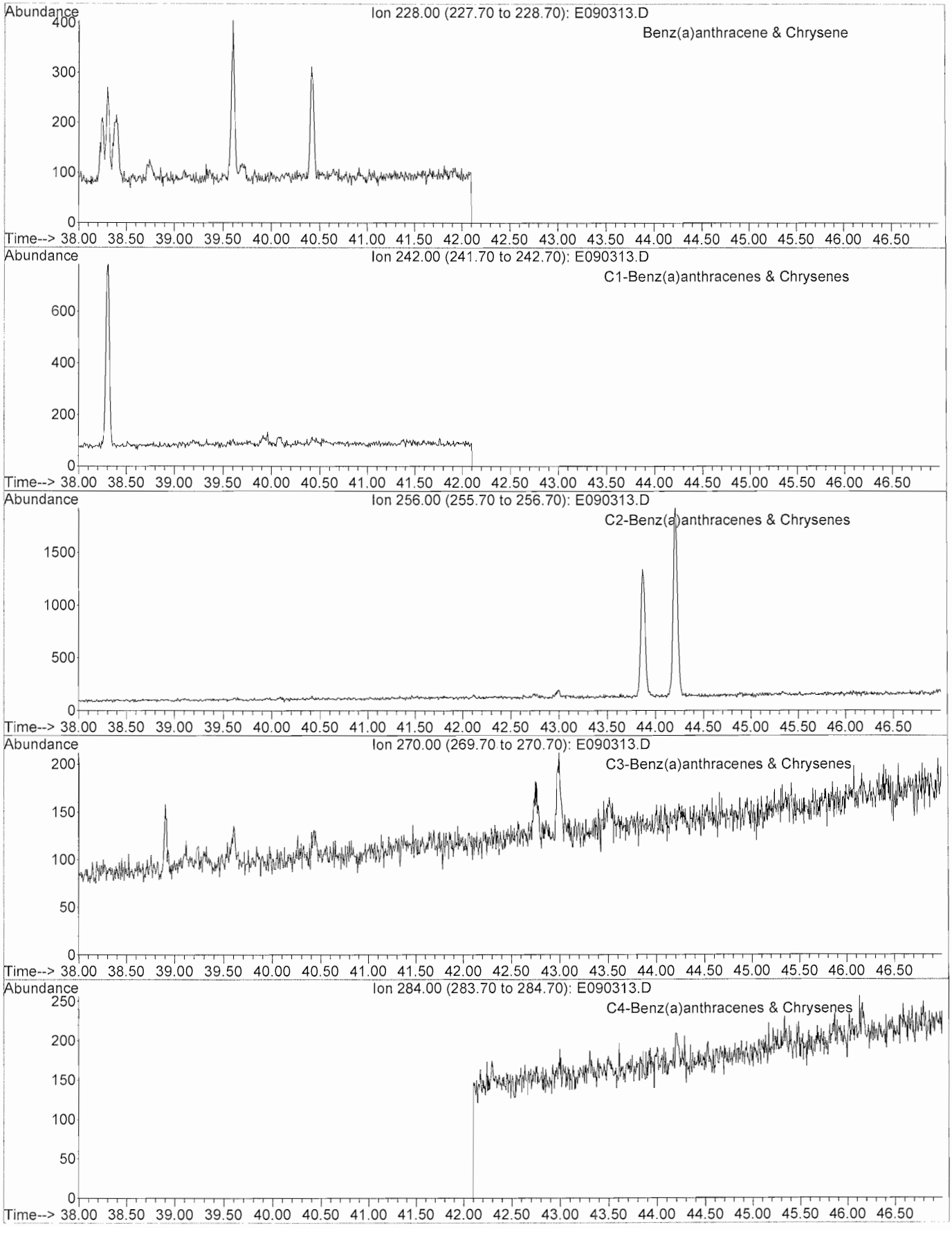
Misc Info: SD-94-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

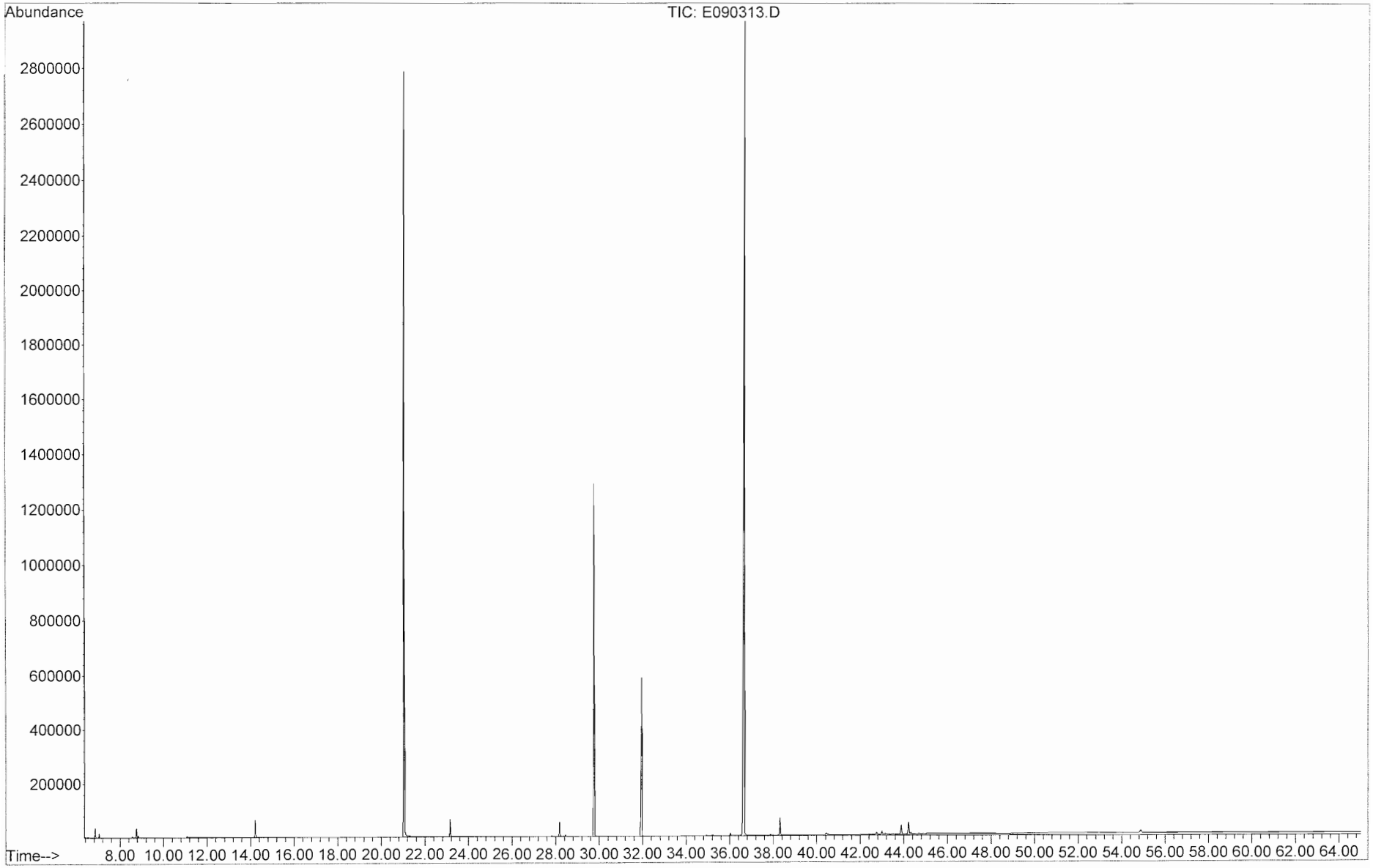
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

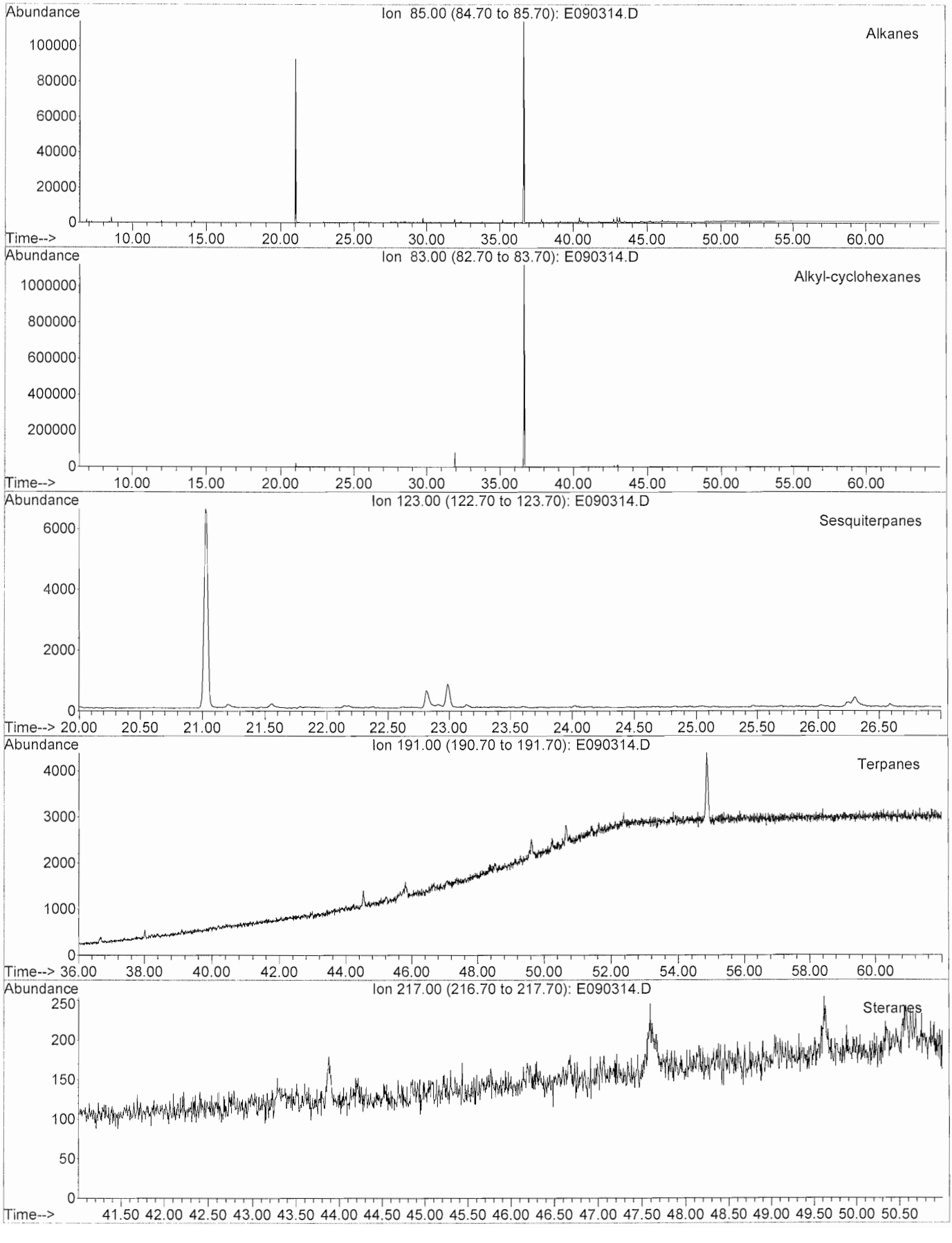
File: J:\1\DATA\E100903\E090313.D
Date Acquired: 4 Sep 2010 5:43 am
Sample Name: TT100819-05
Misc Info: SD-94-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

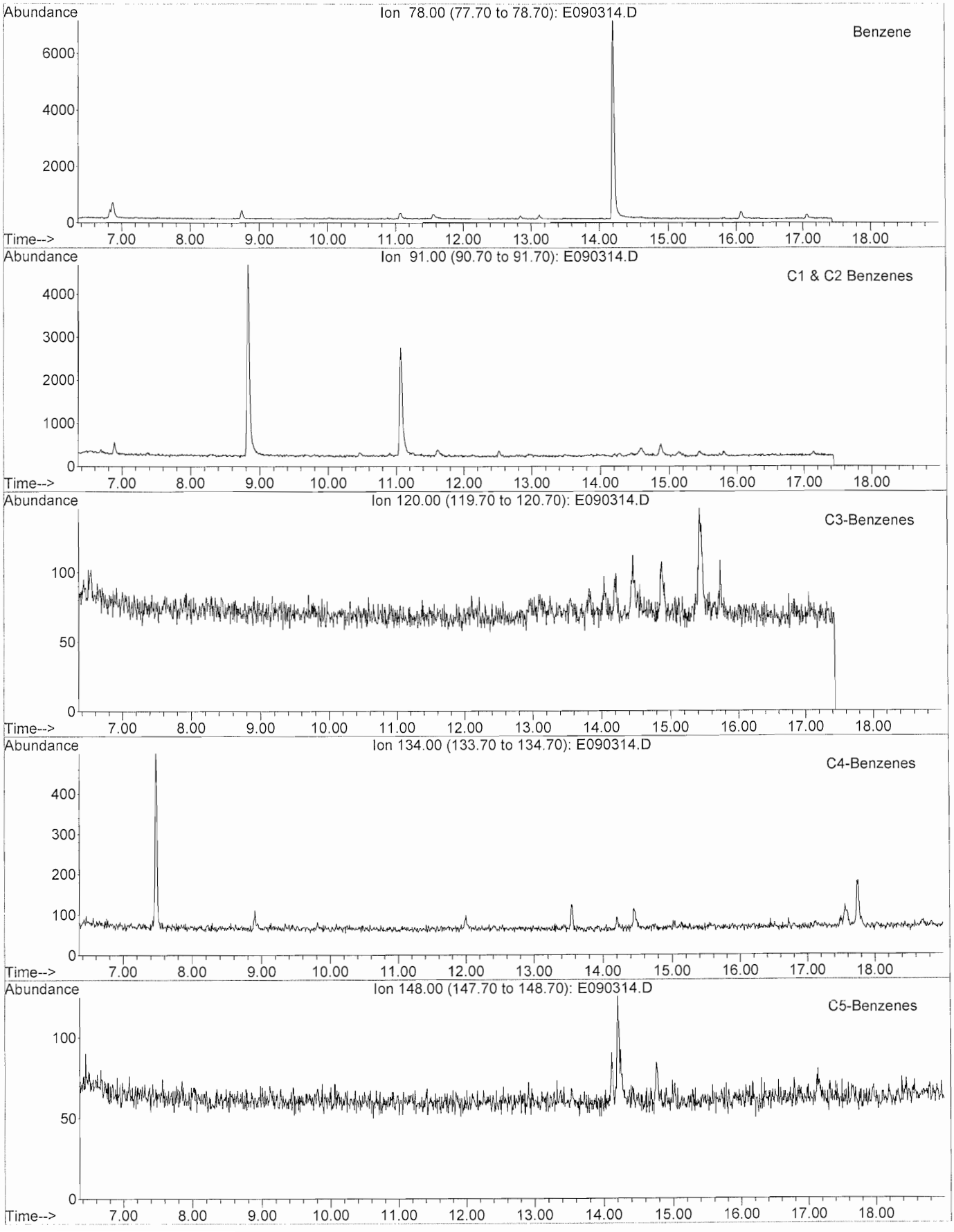
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

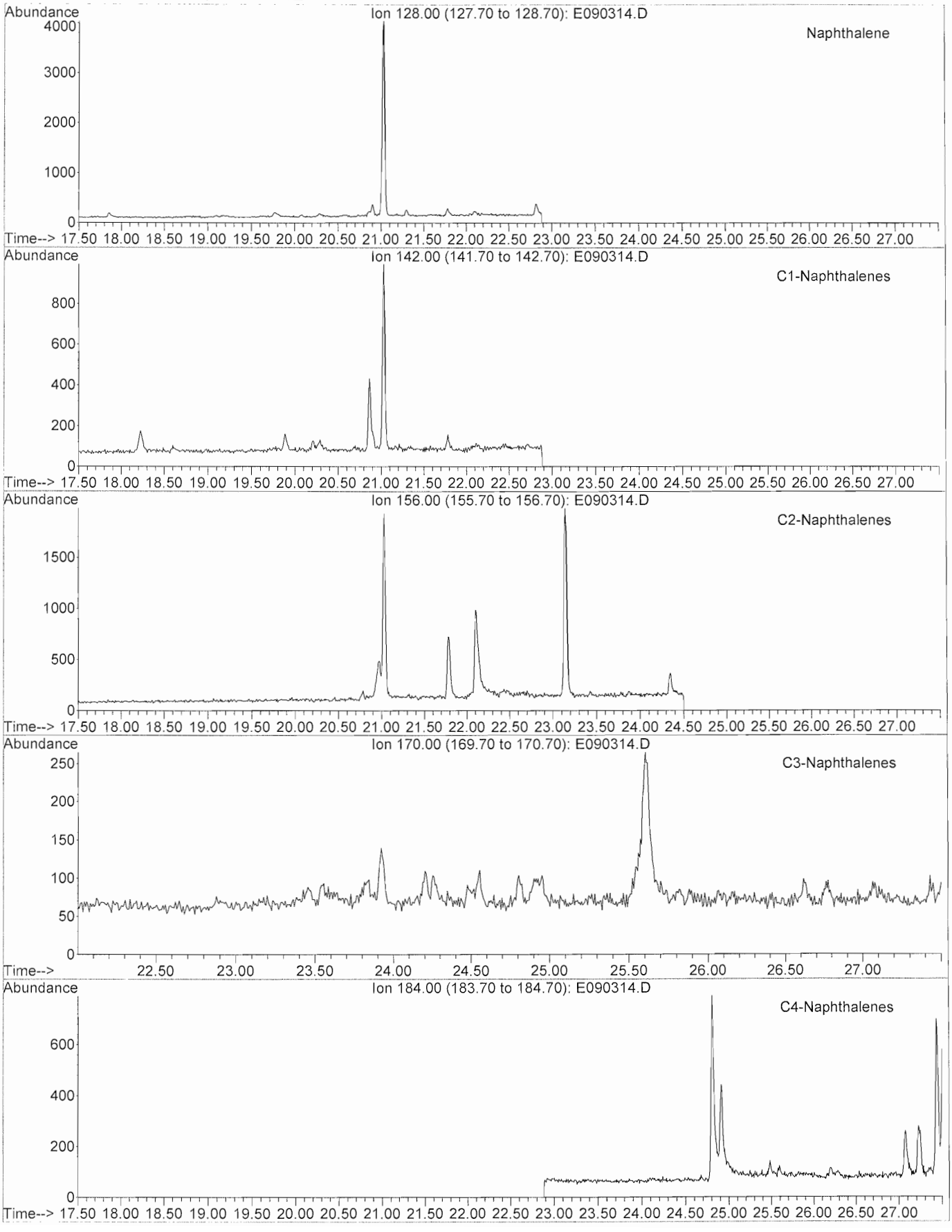
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

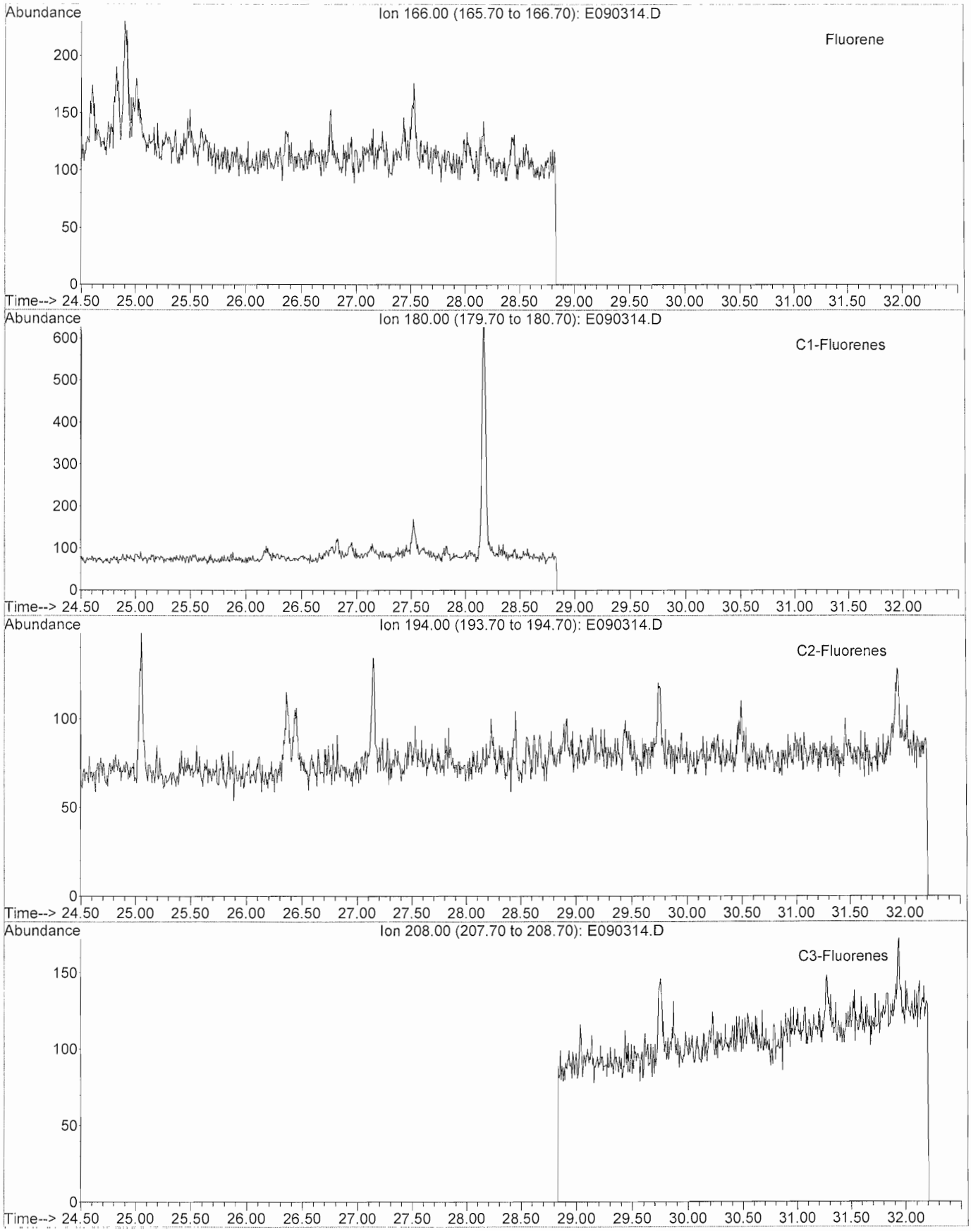
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

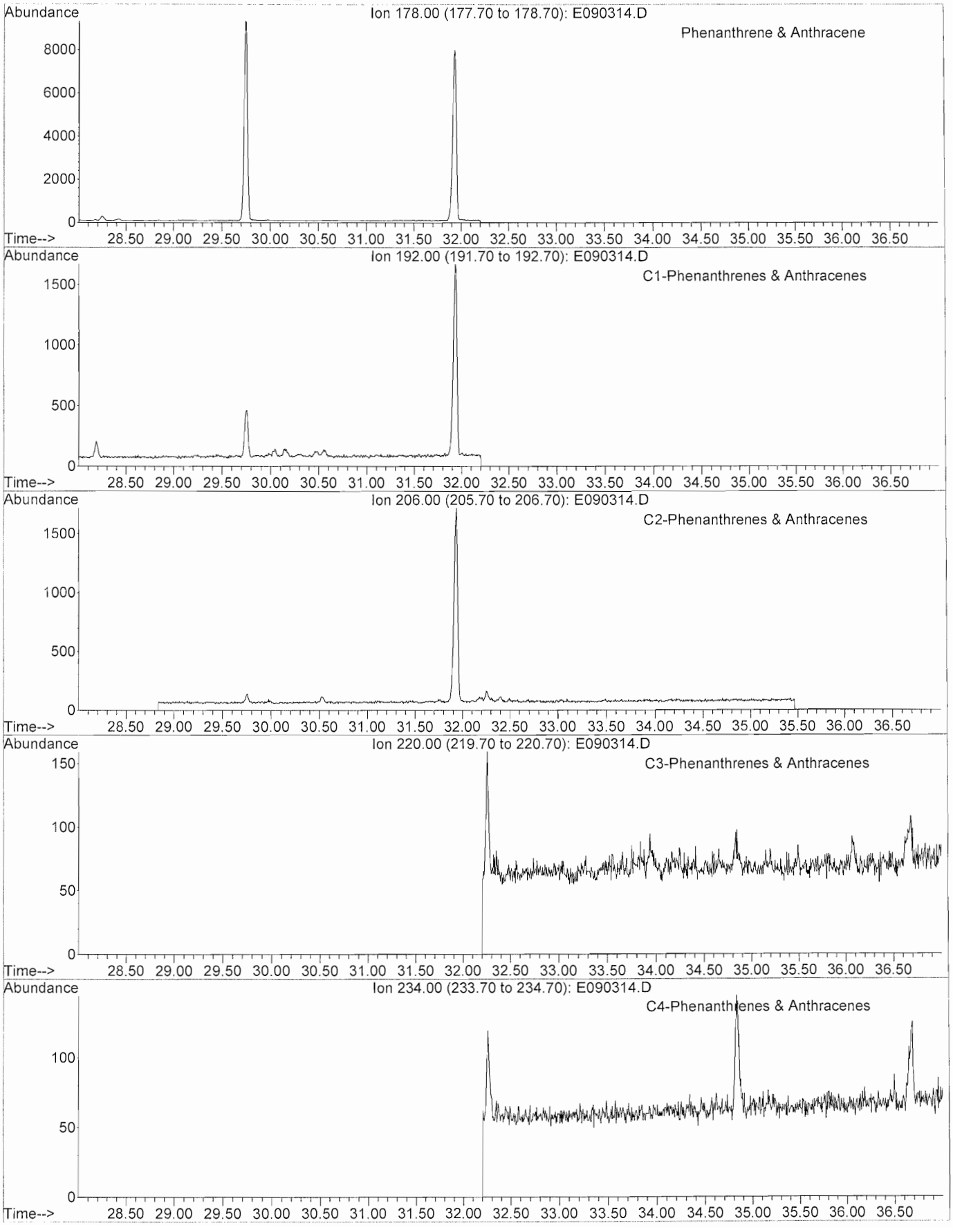
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

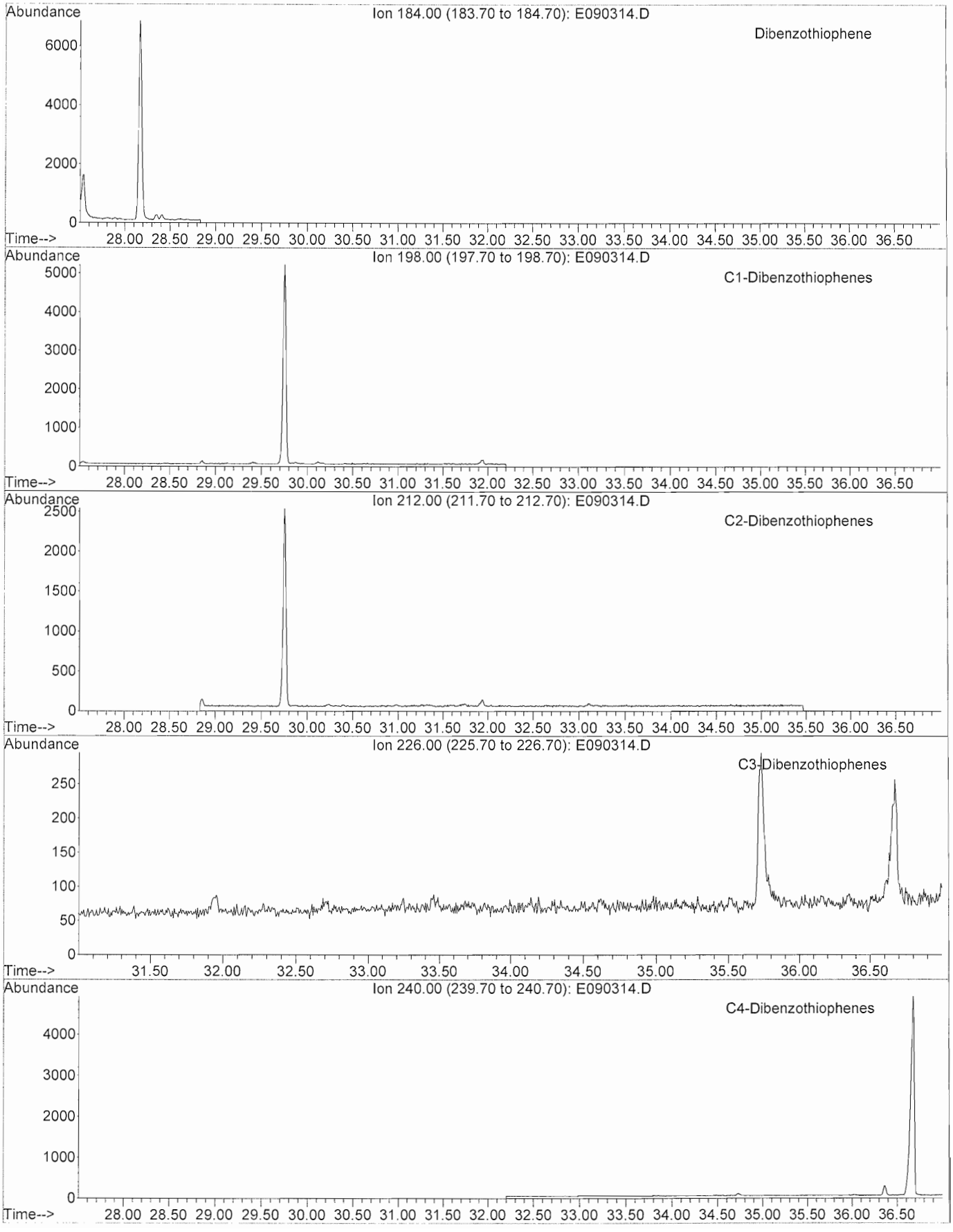
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

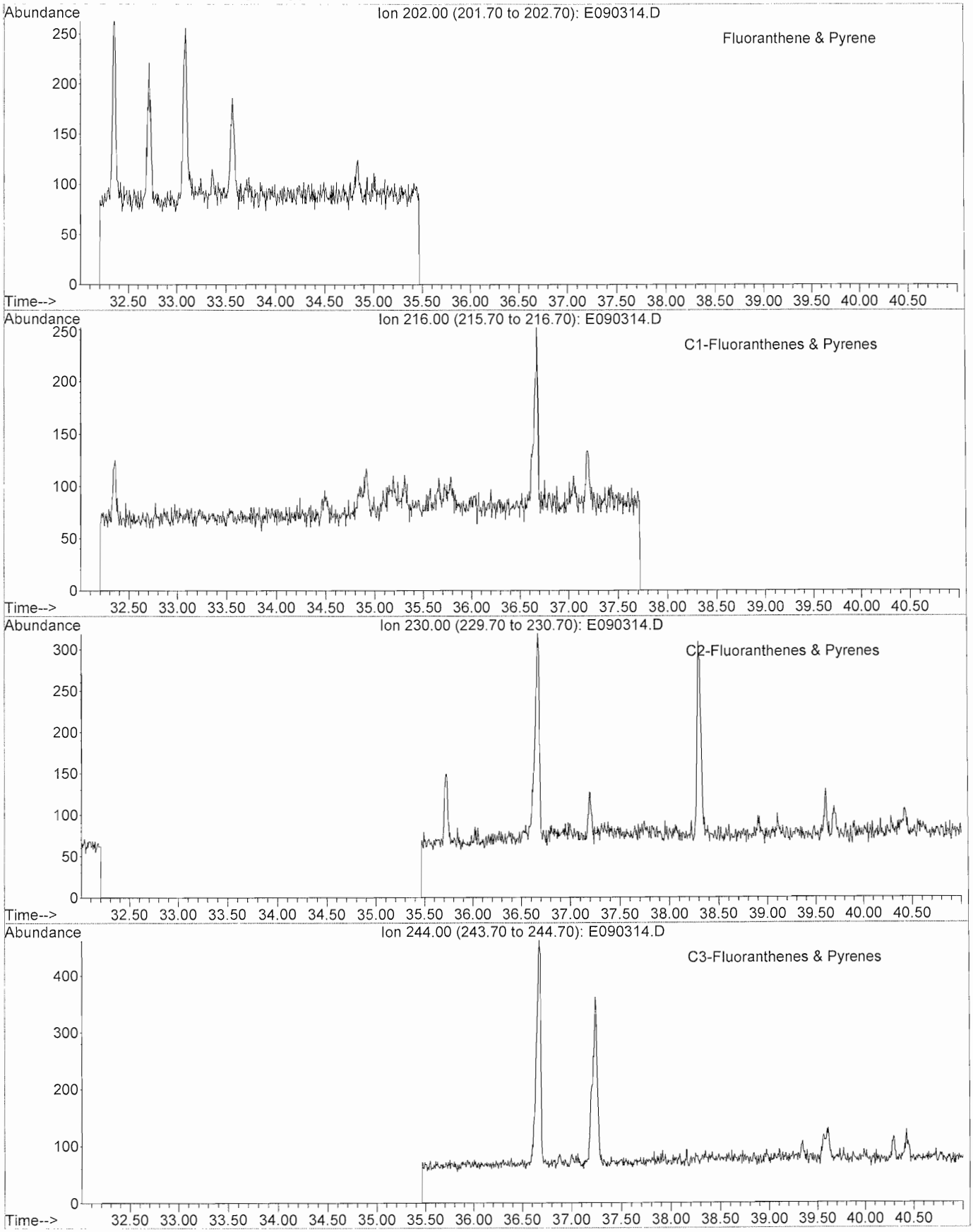
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

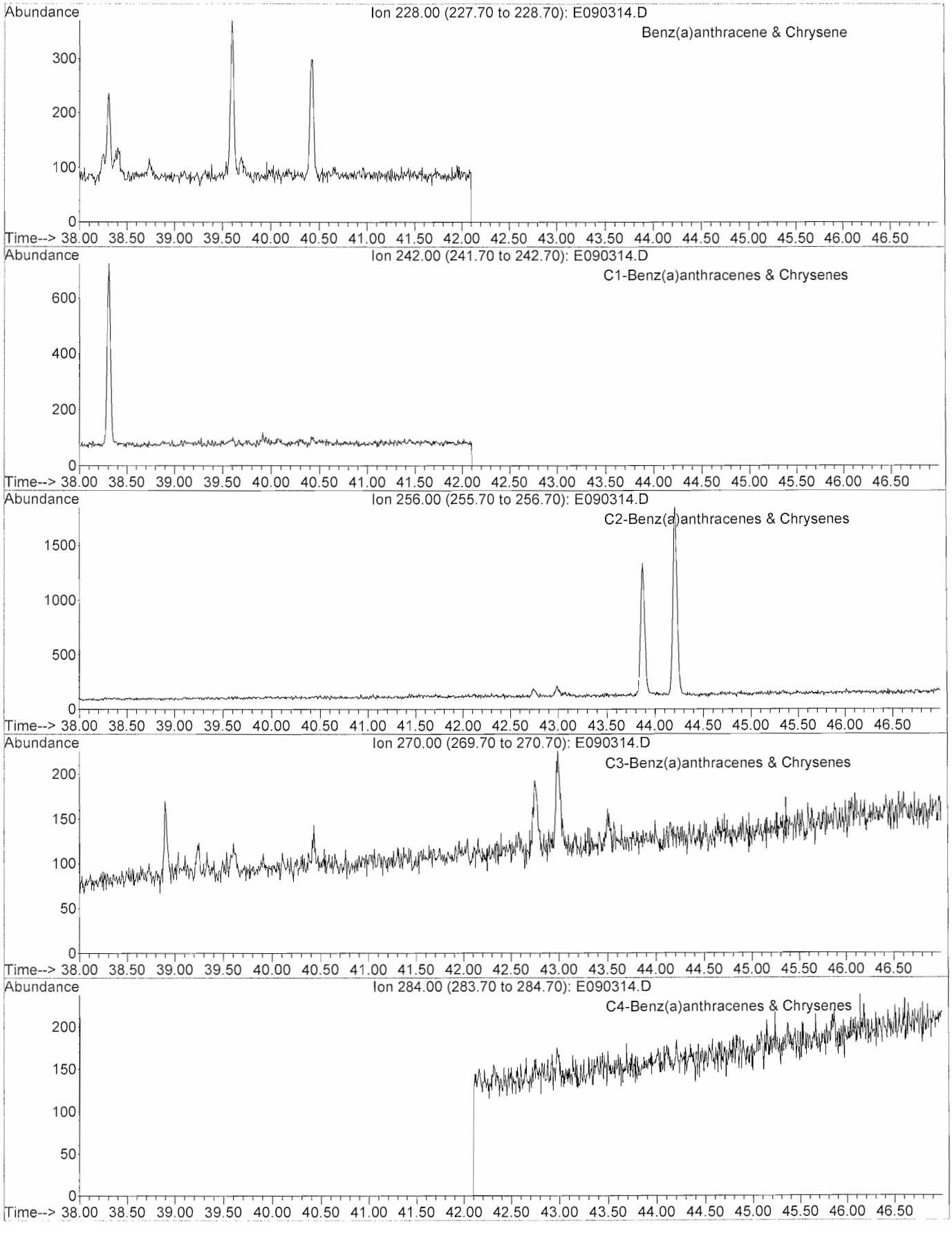
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

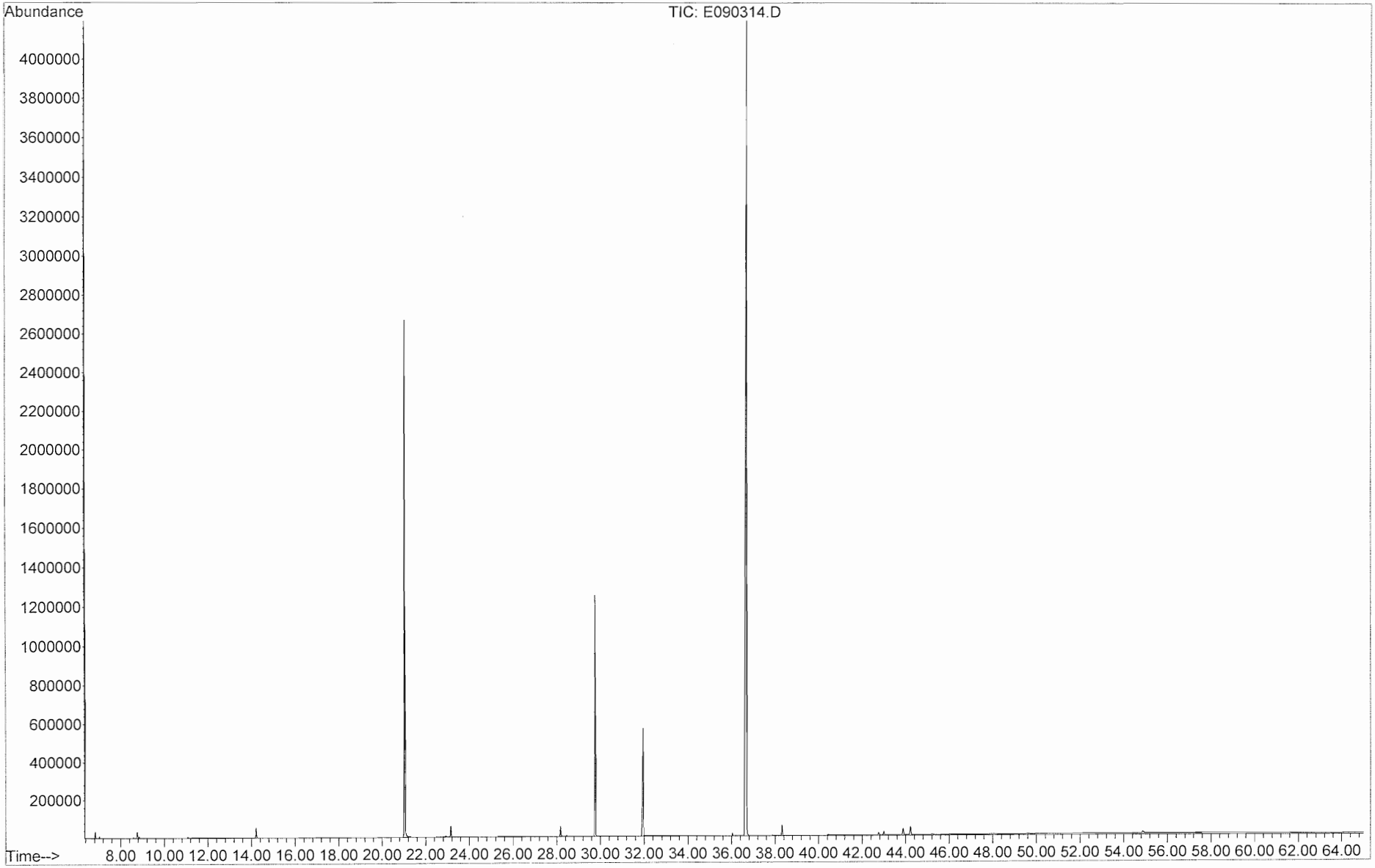
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

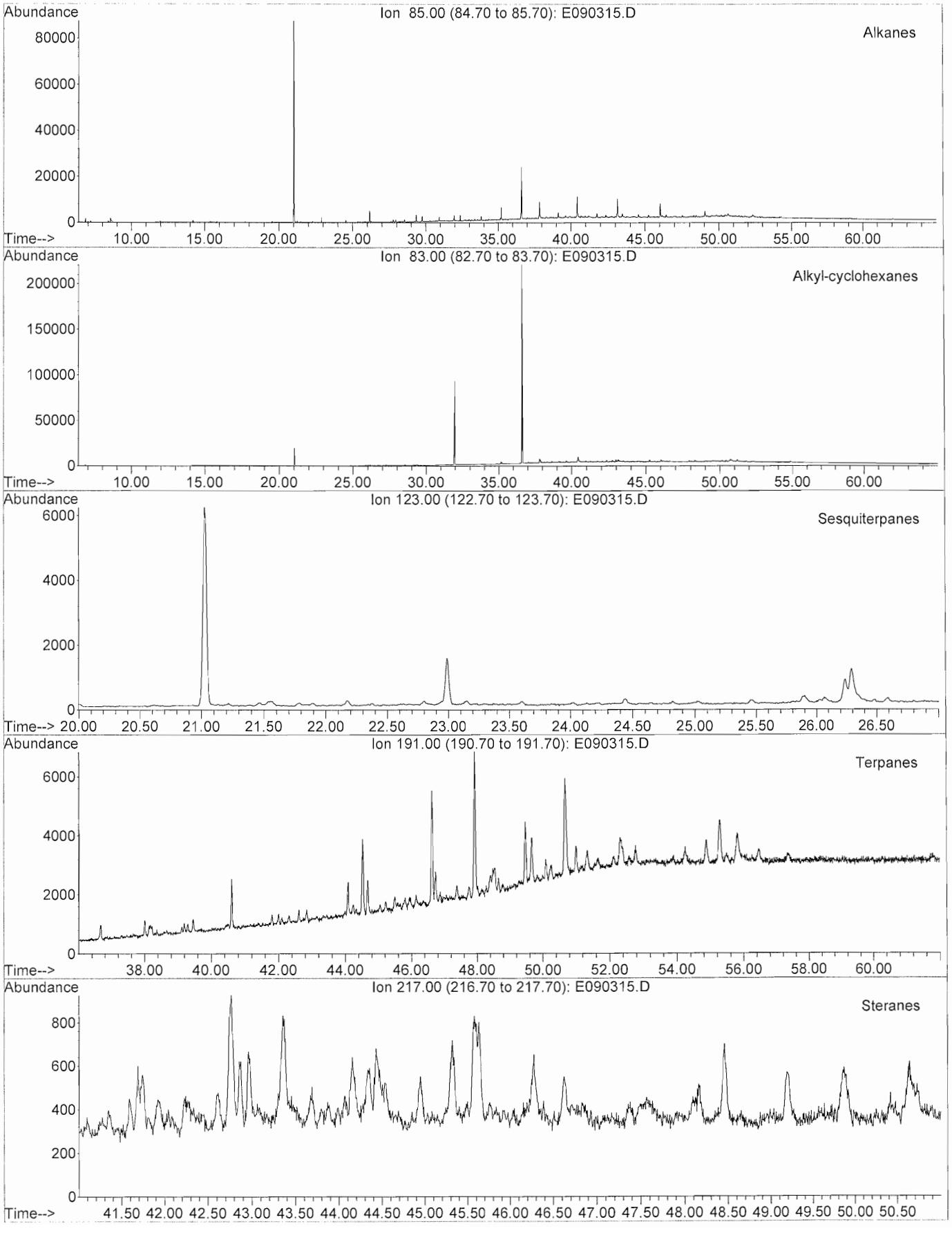
File: J:\1\DATA\E100903\E090314.D
Date Acquired: 4 Sep 2010 7:03 am
Sample Name: TT100819-06
Misc Info: SD-94-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

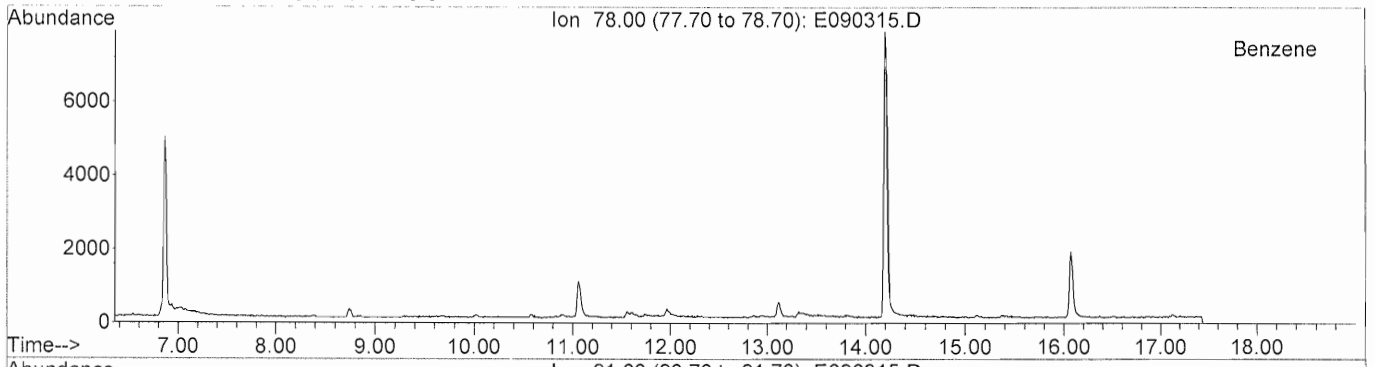
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS

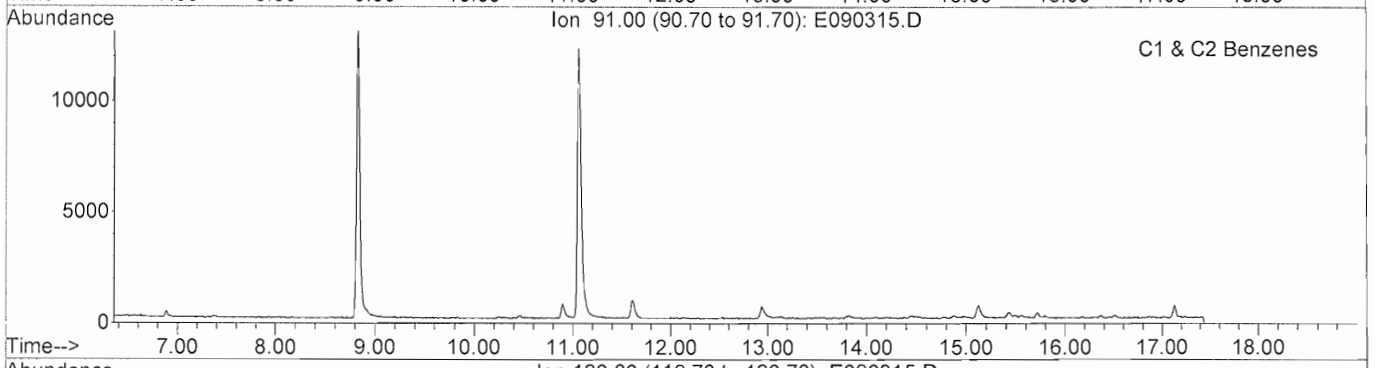


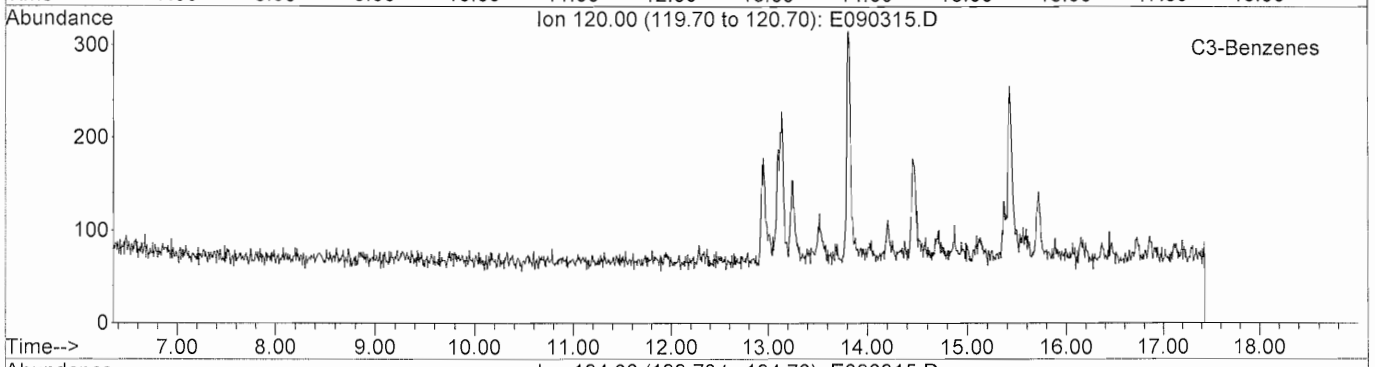
META Environmental, Inc.

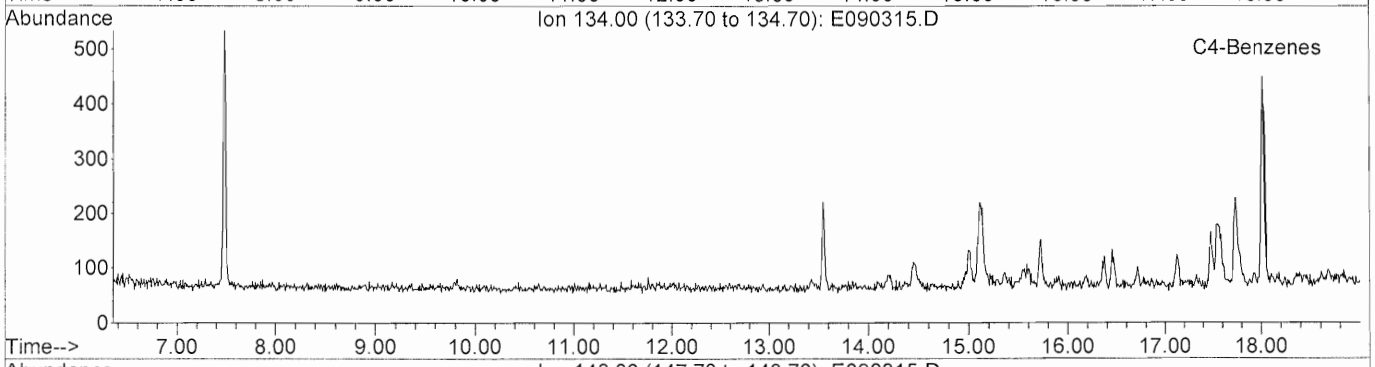
GC/MS EXTRACTED ION CHROMATOGRAM

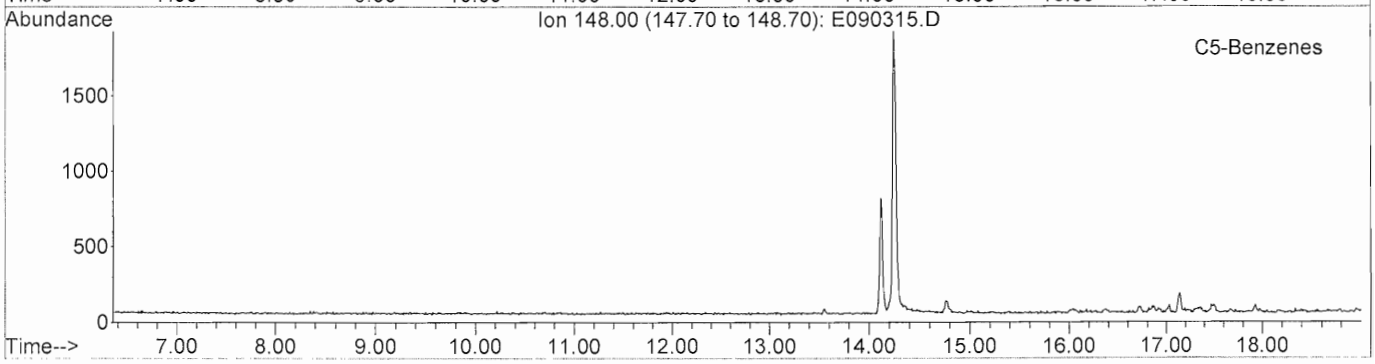
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS







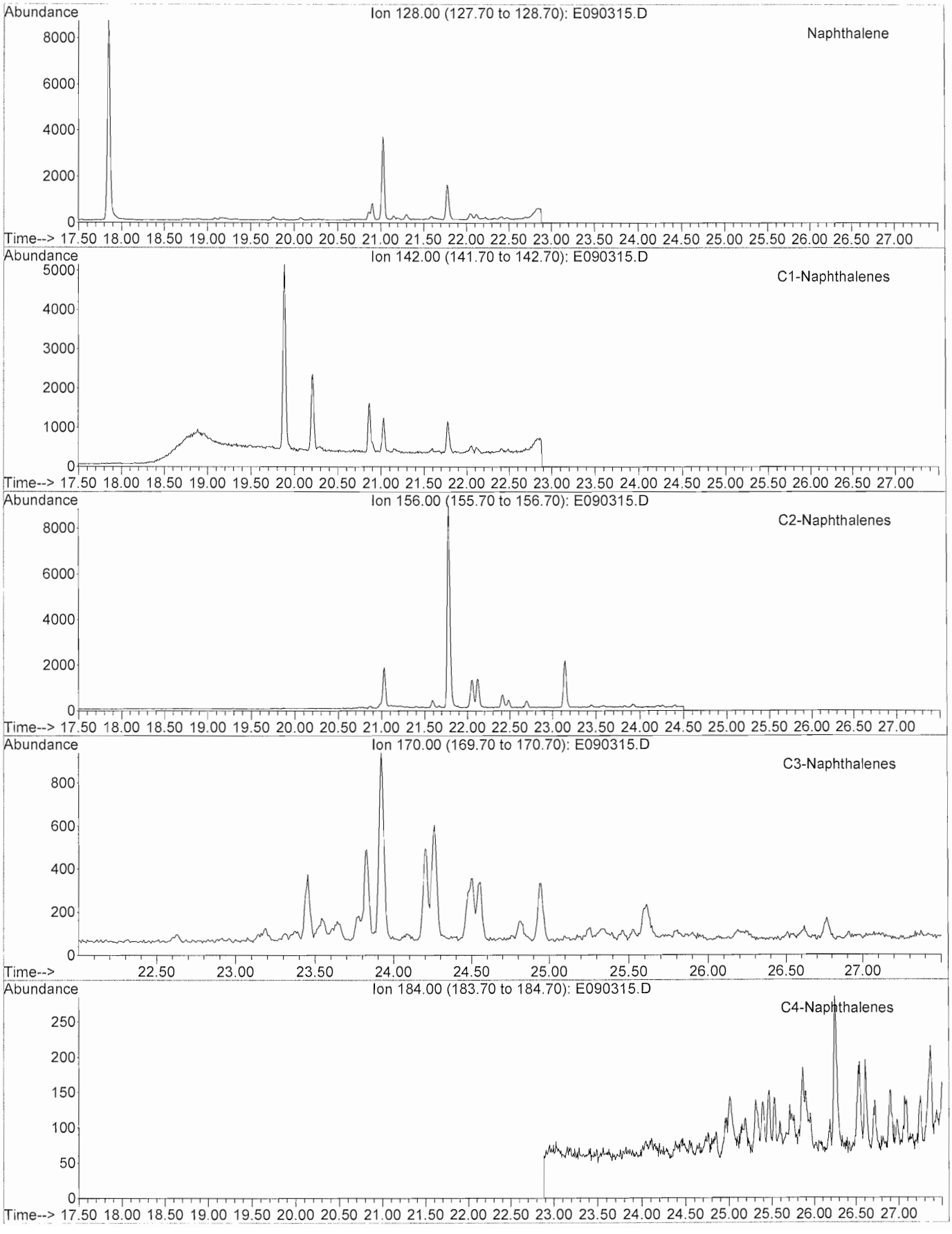




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

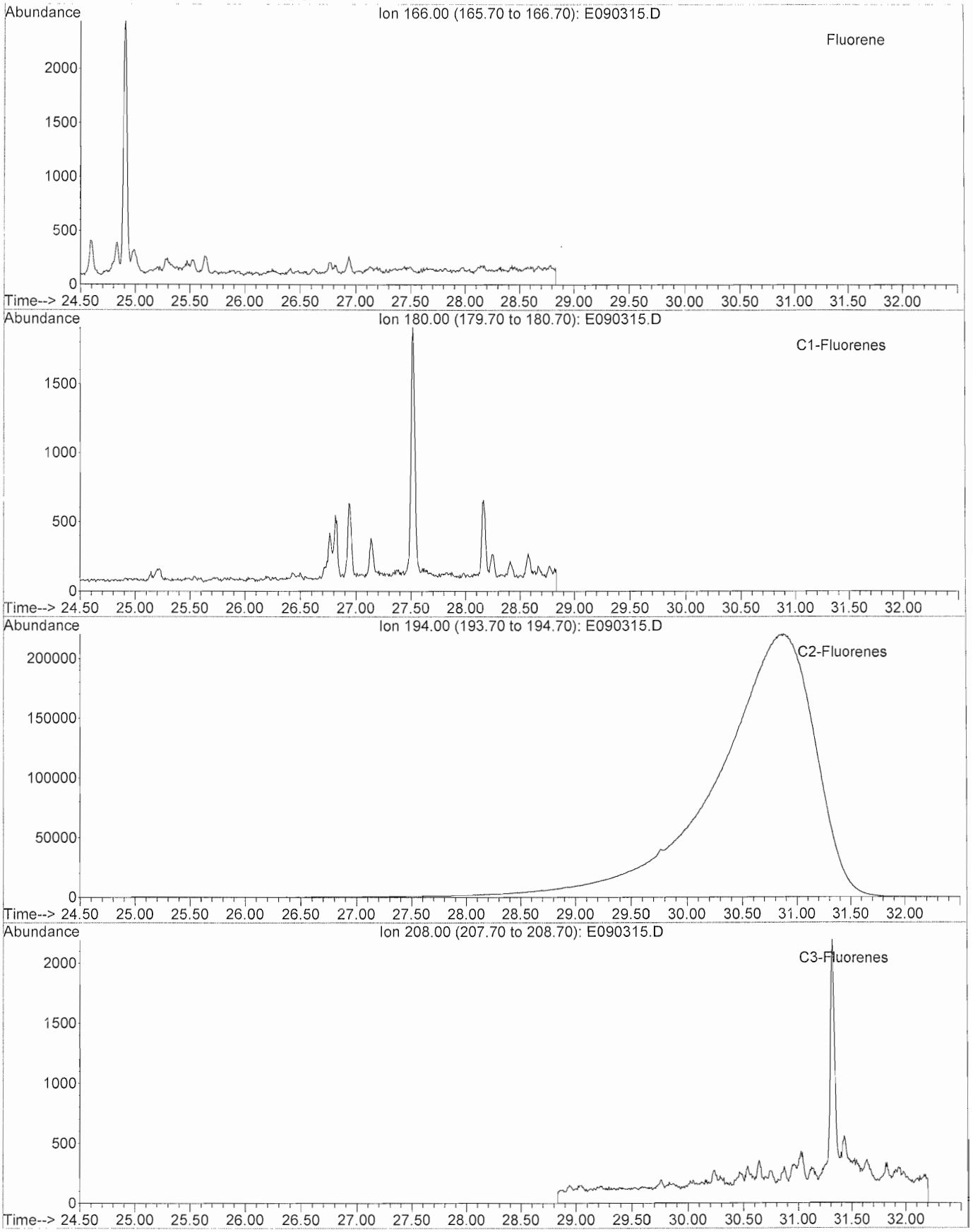
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

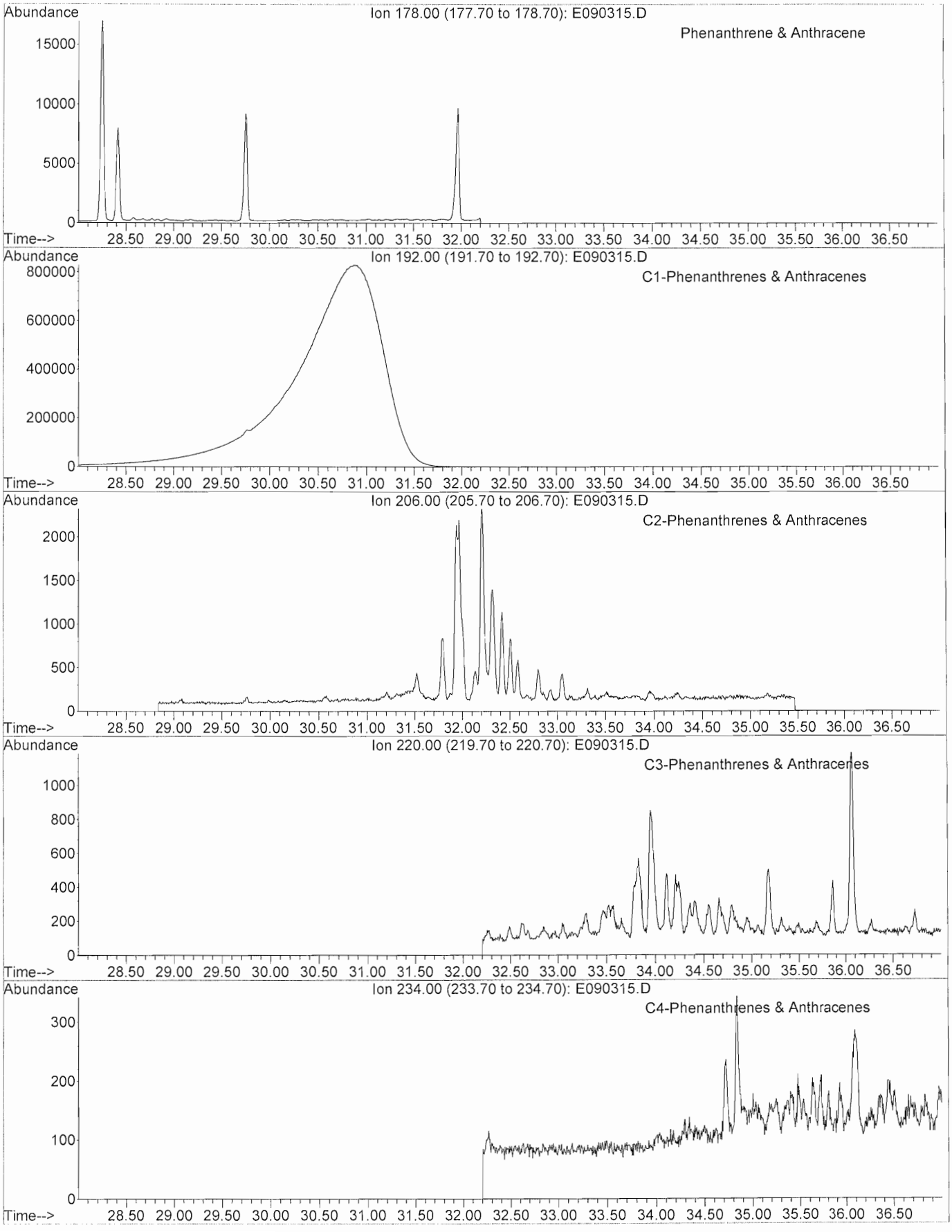
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

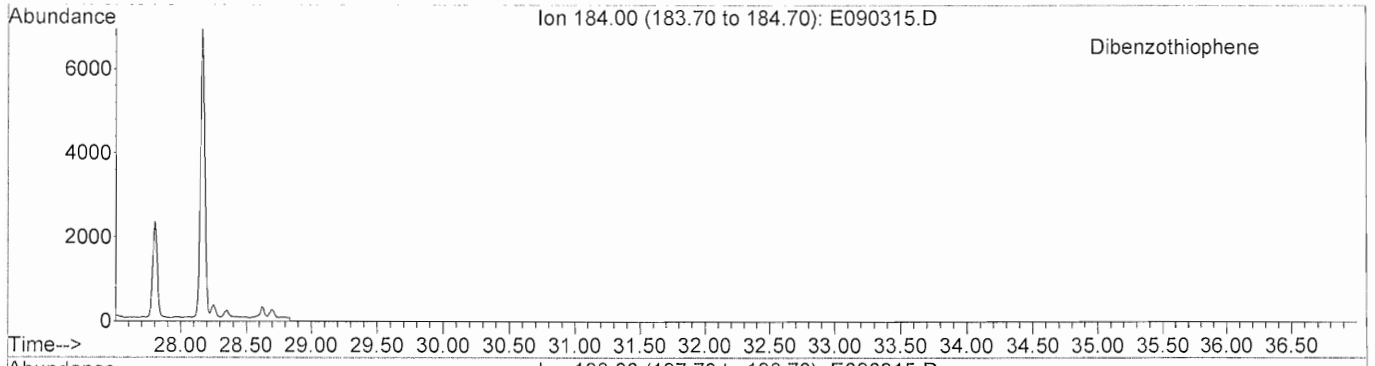
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS

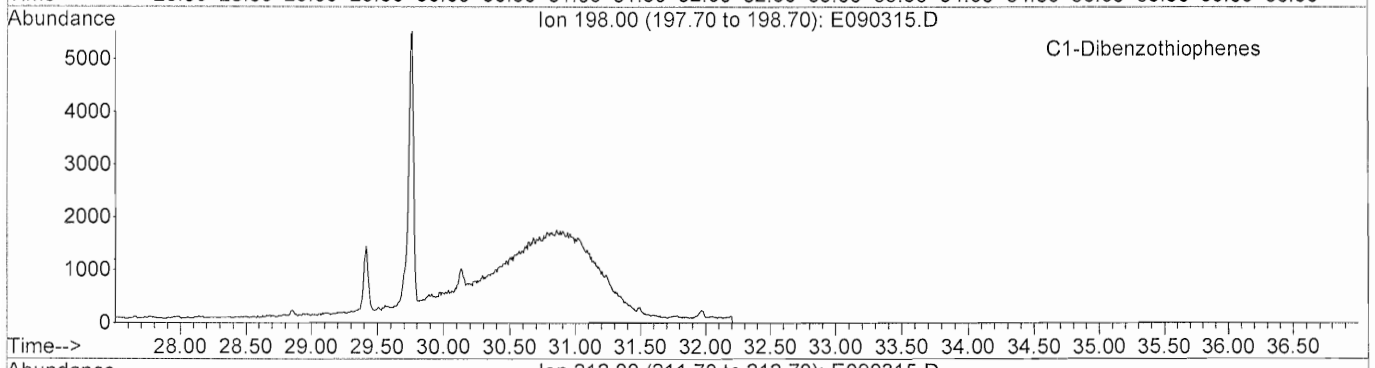


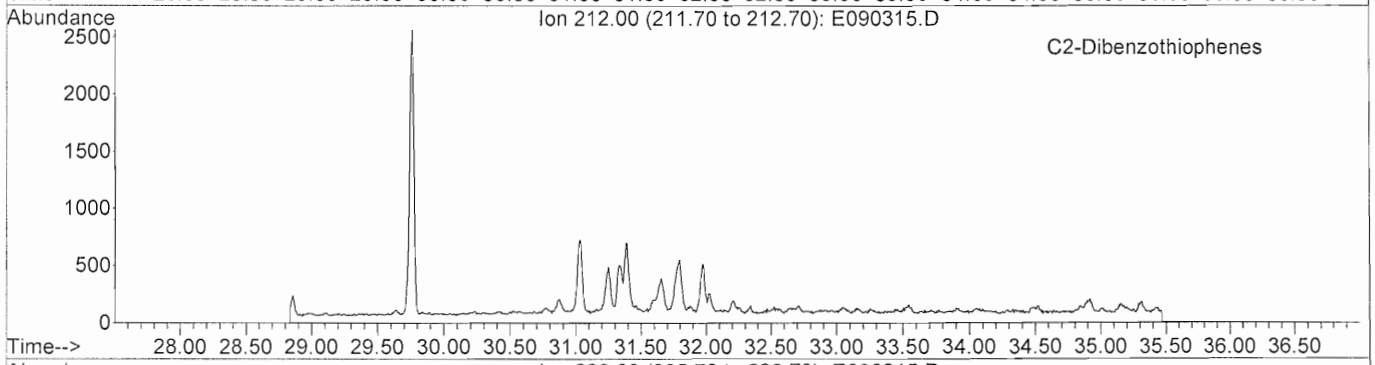
META Environmental, Inc.

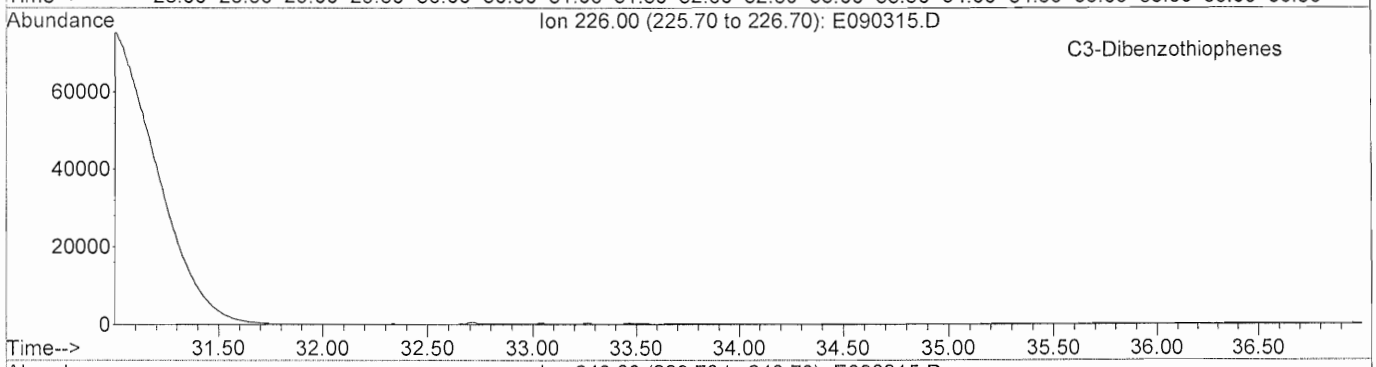
GC/MS EXTRACTED ION CHROMATOGRAM

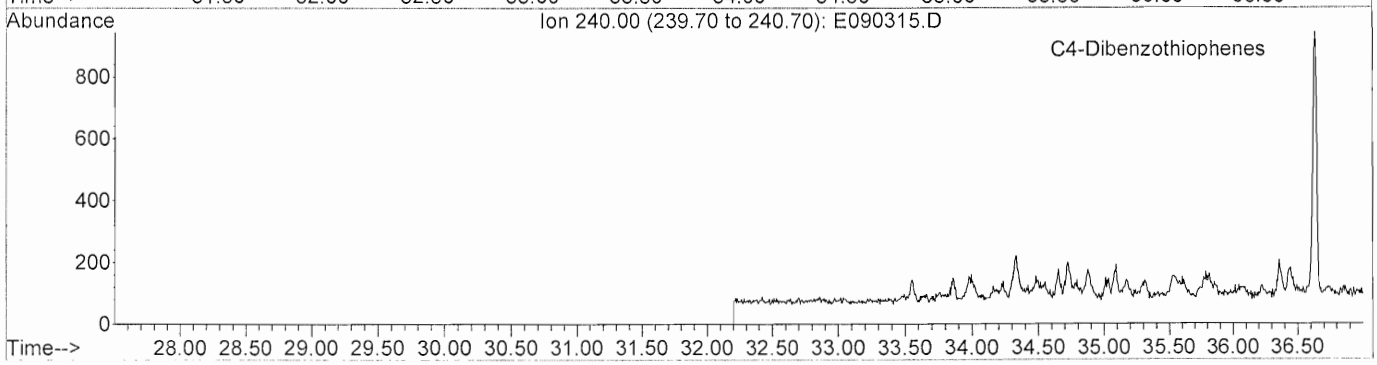
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS







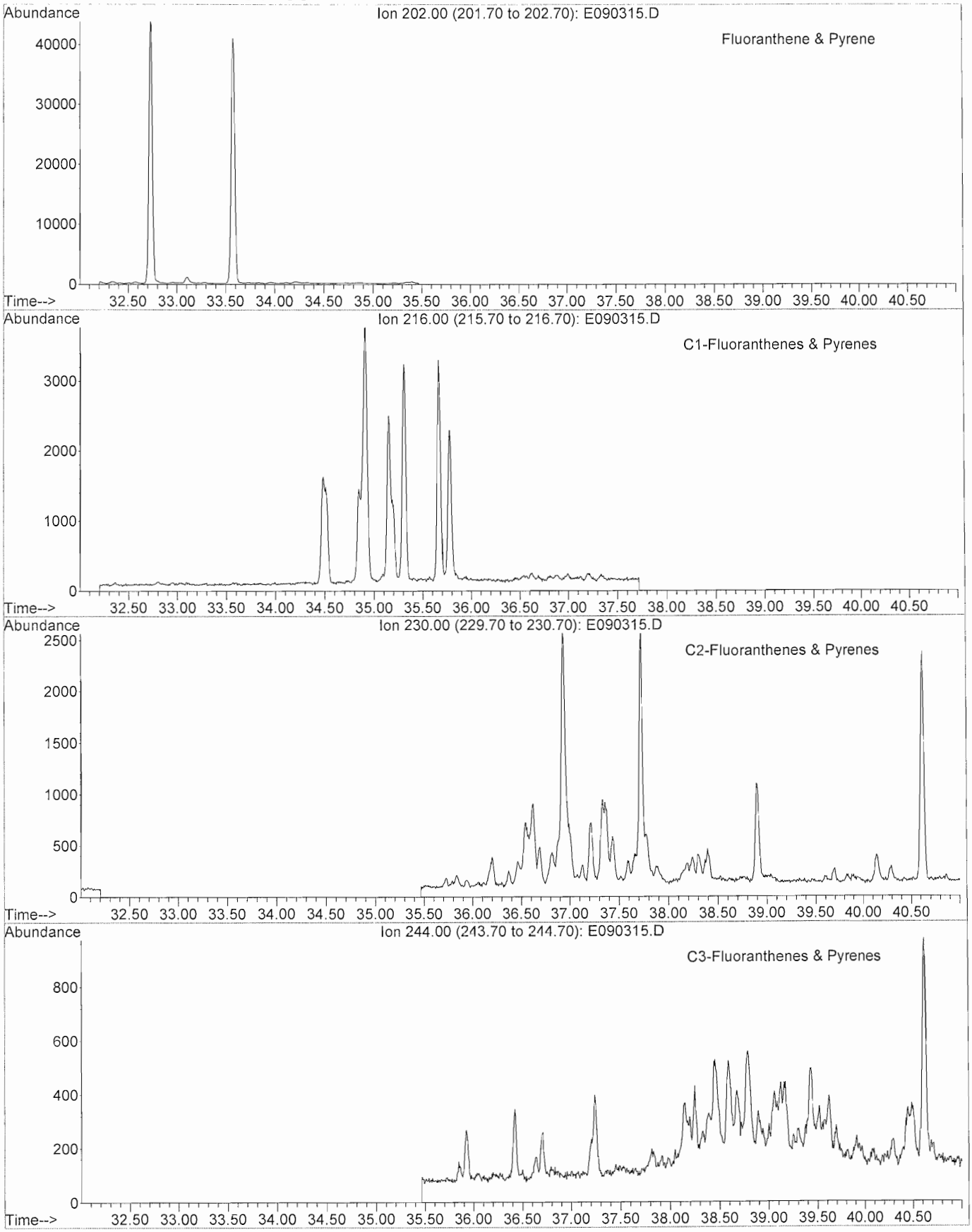




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

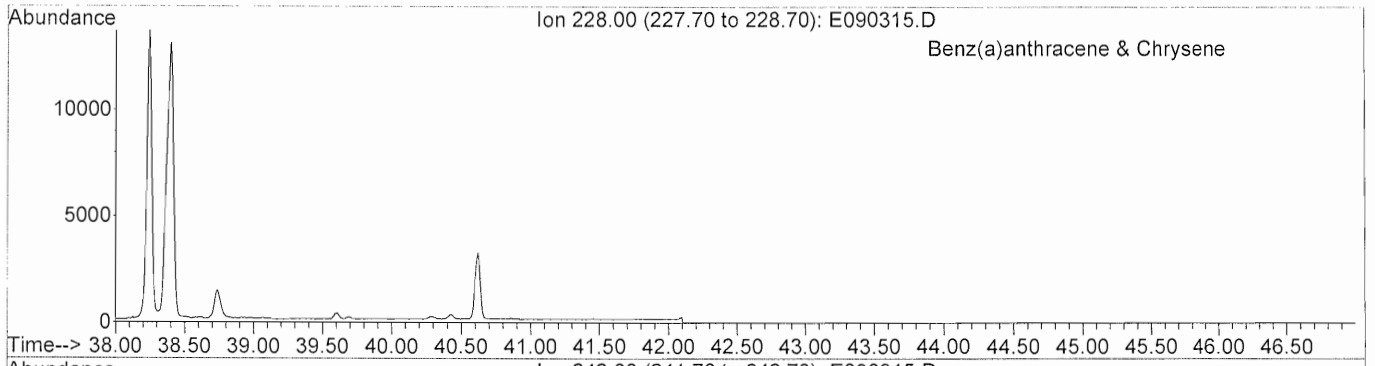
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS

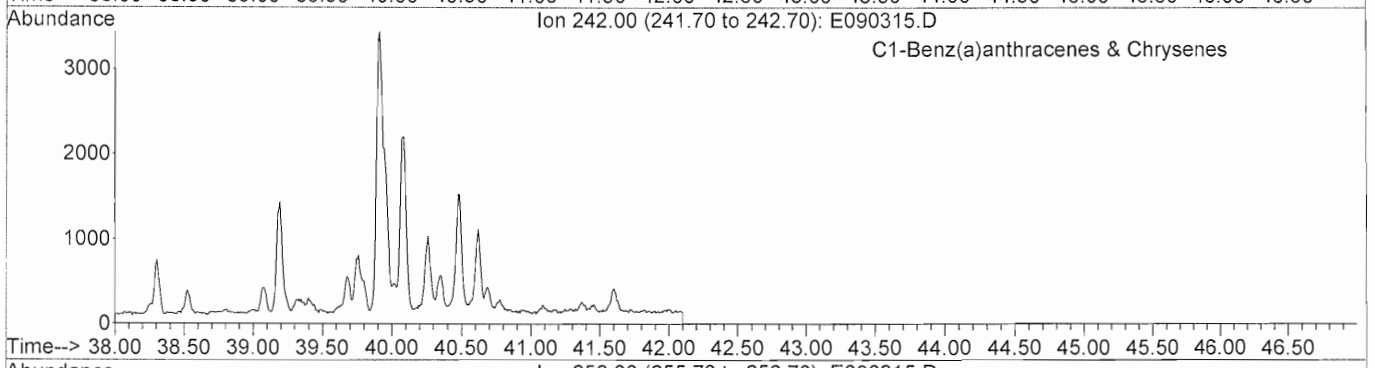


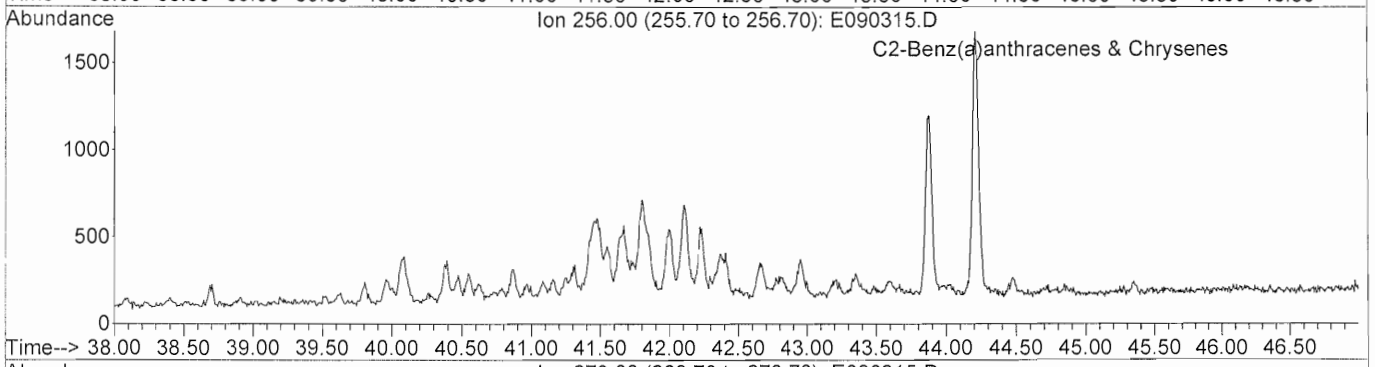
META Environmental, Inc.

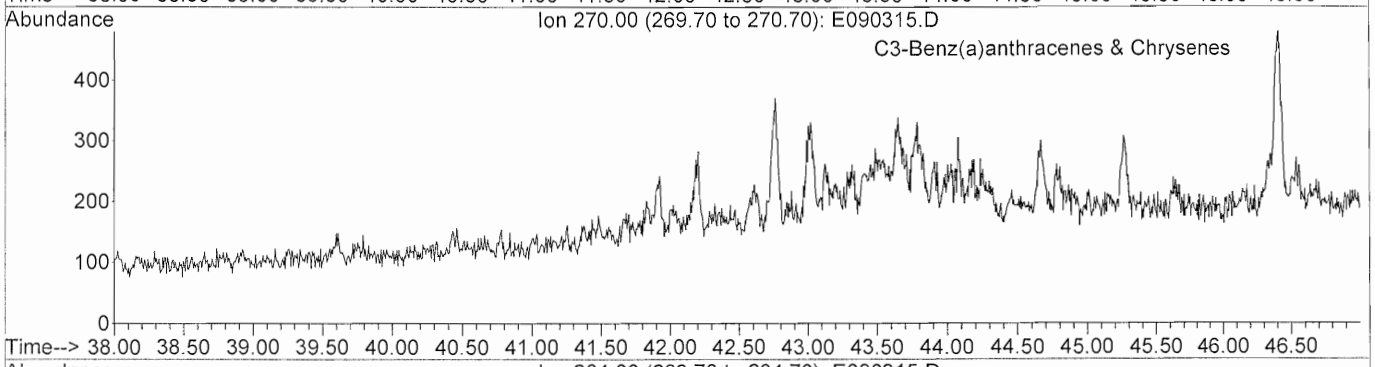
GC/MS EXTRACTED ION CHROMATOGRAM

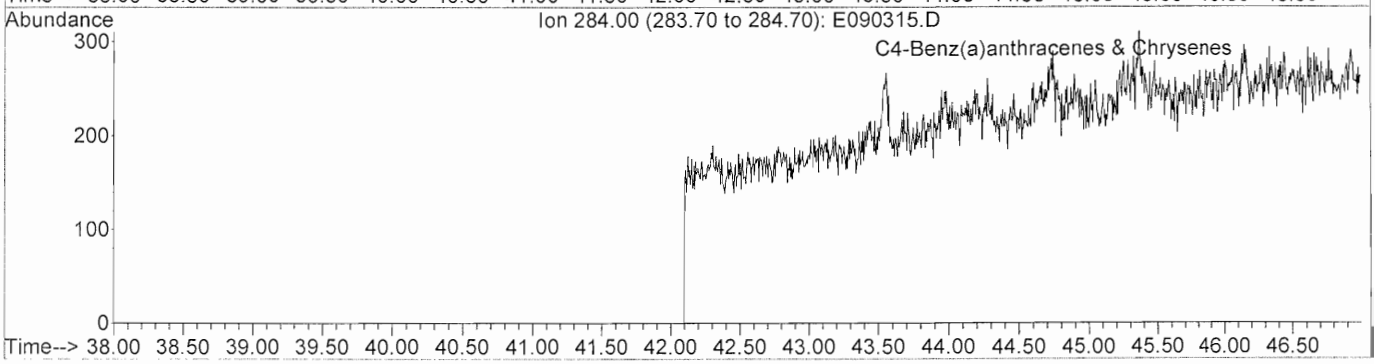
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS







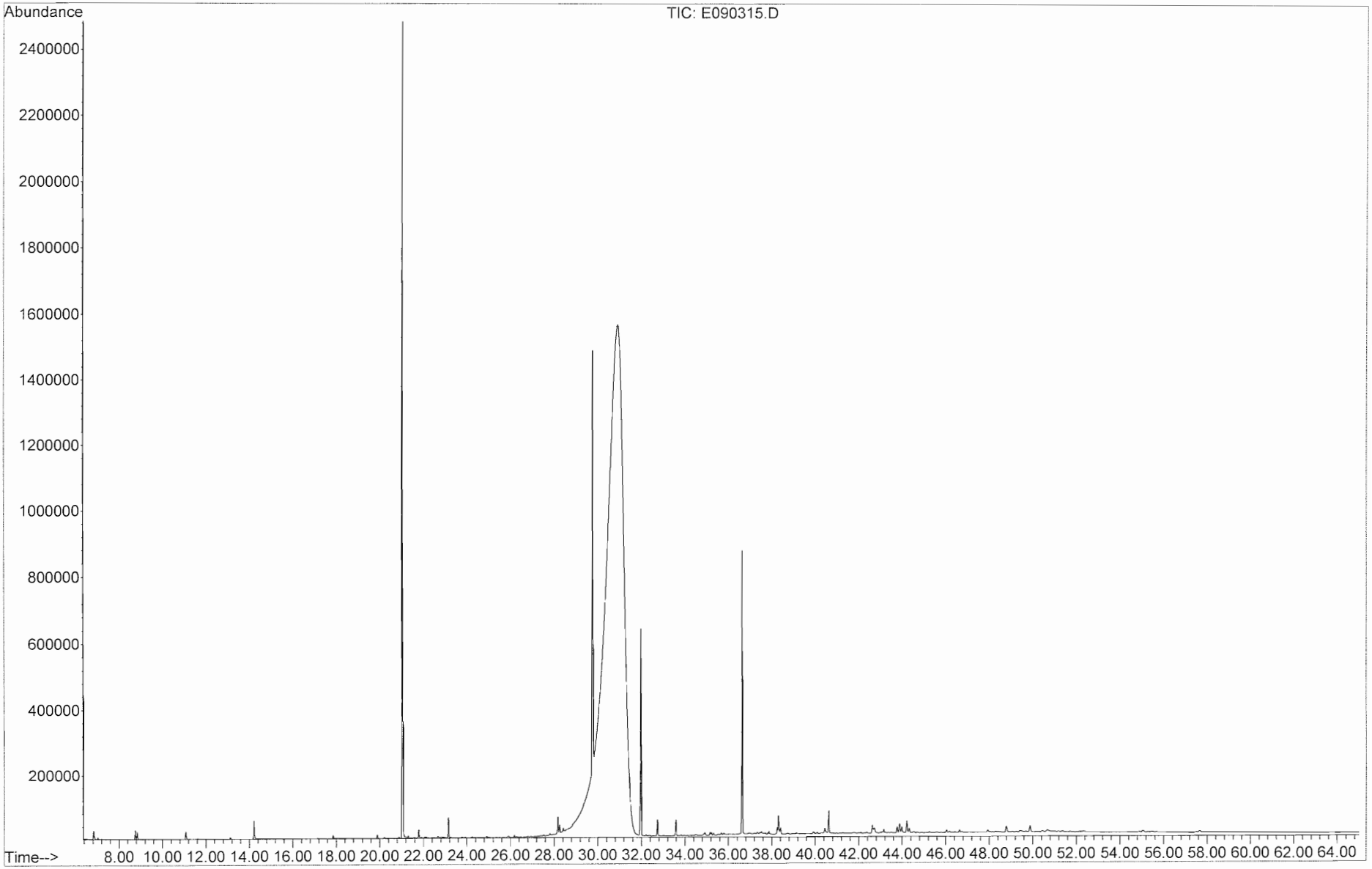




META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

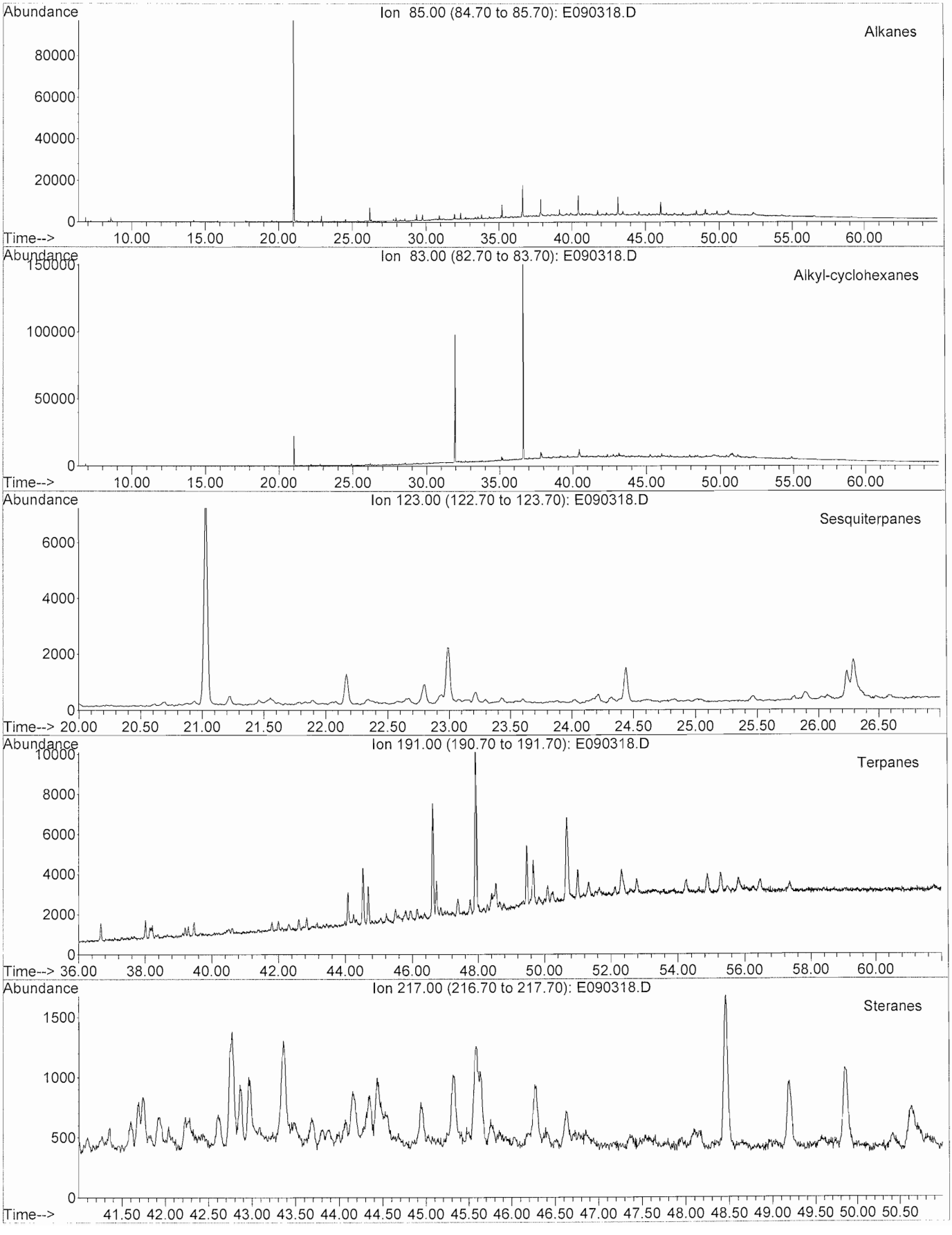
File: J:\1\DATA\E100903\E090315.D
Date Acquired: 4 Sep 2010 8:23 am
Sample Name: TT100819-07
Misc Info: SD-97-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

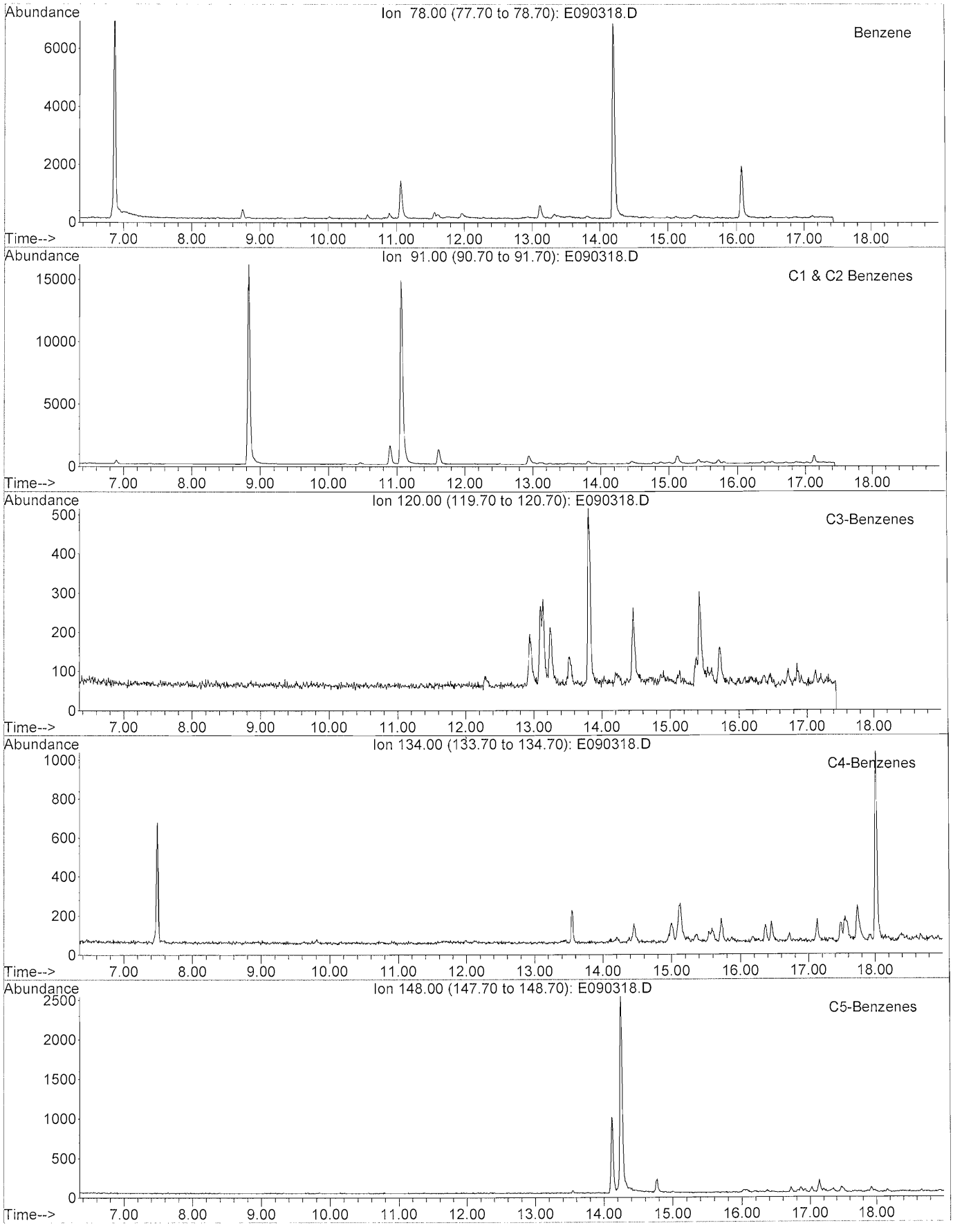
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

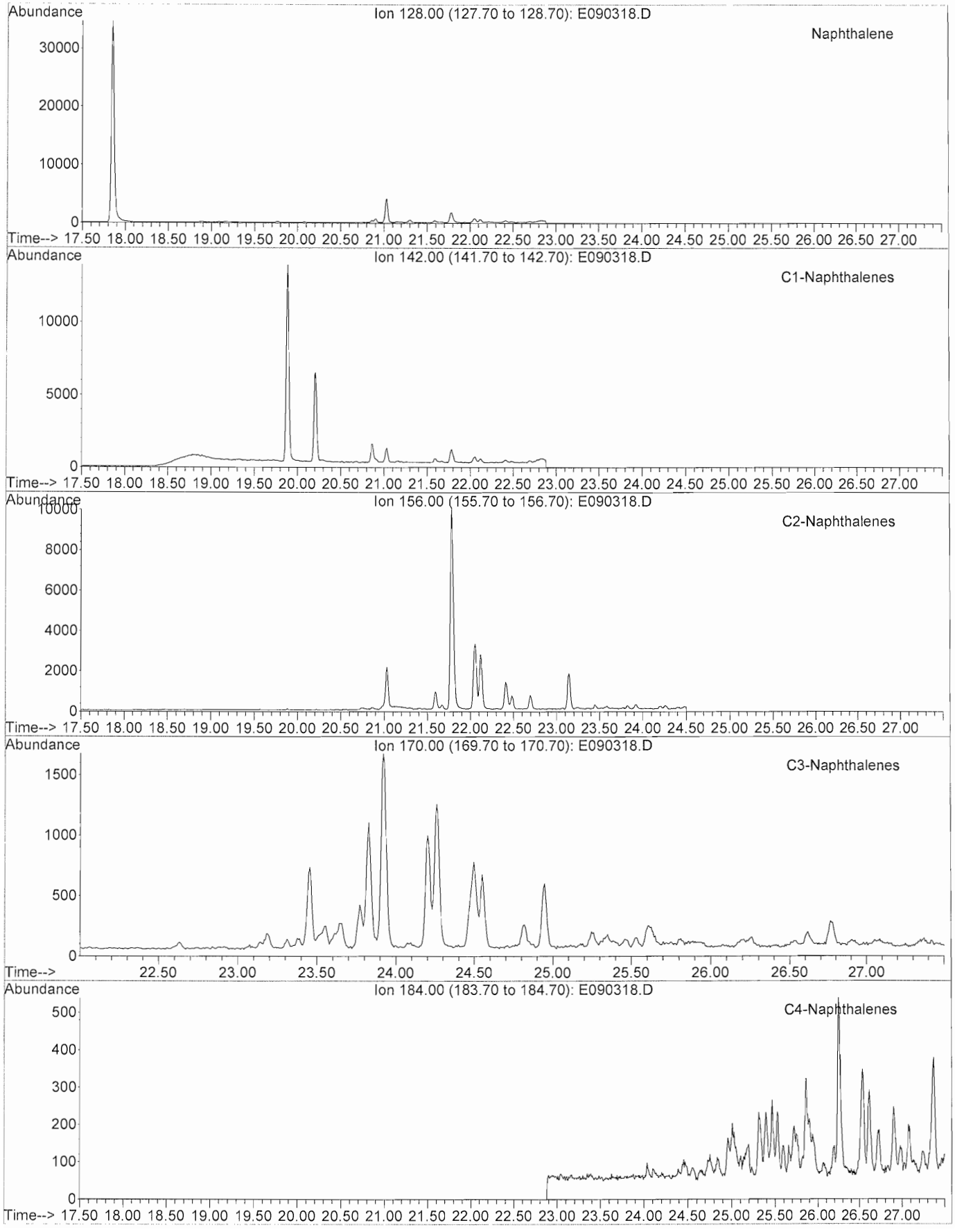
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

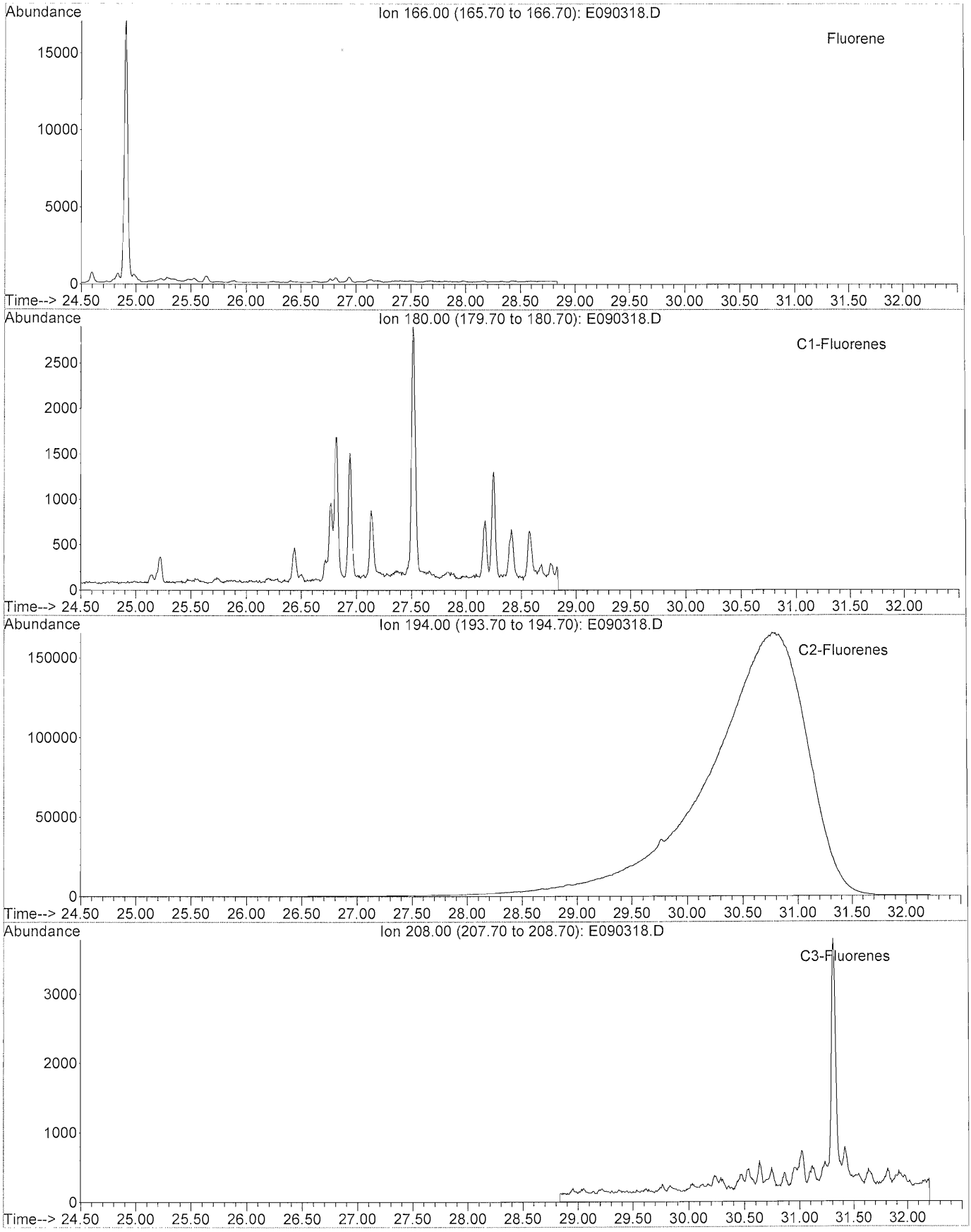
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
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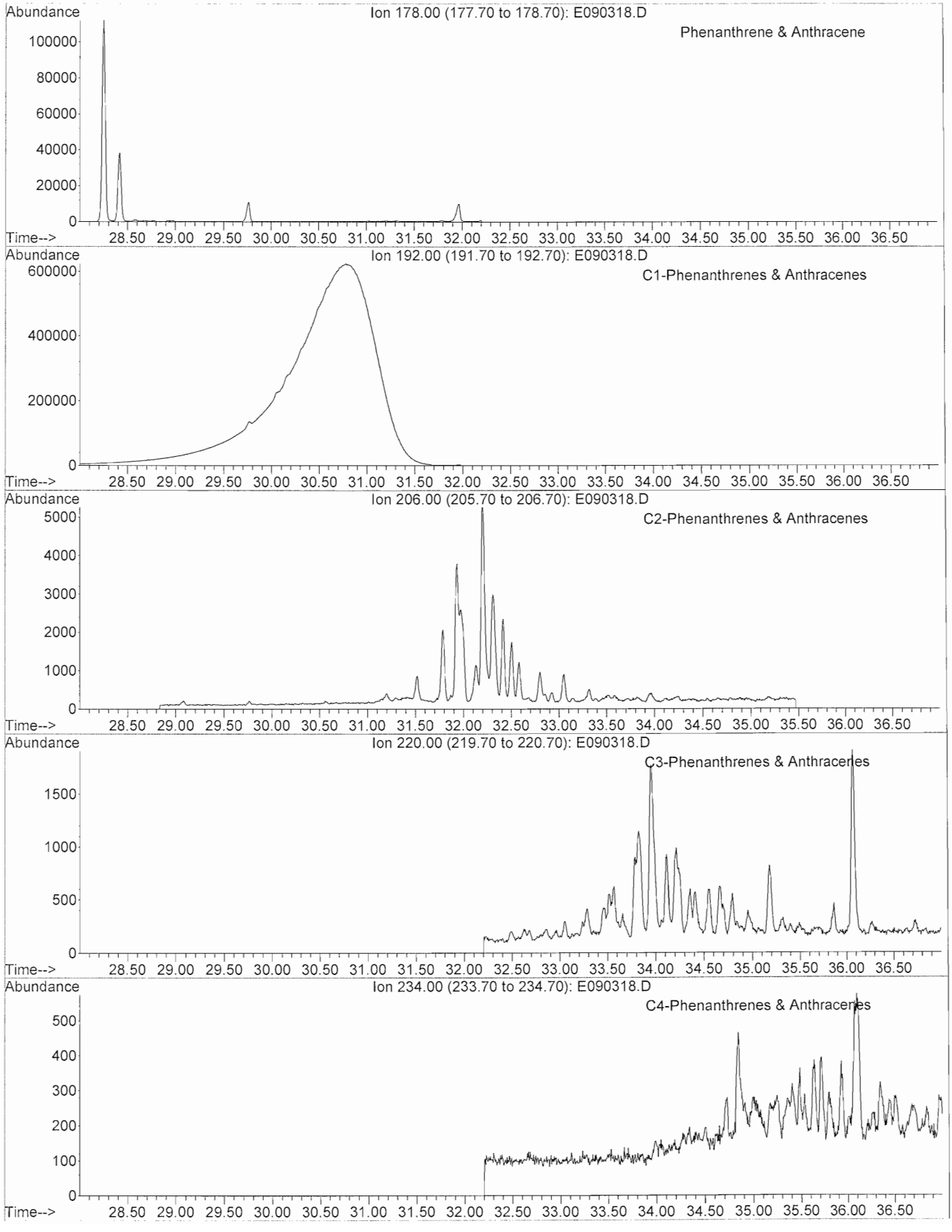
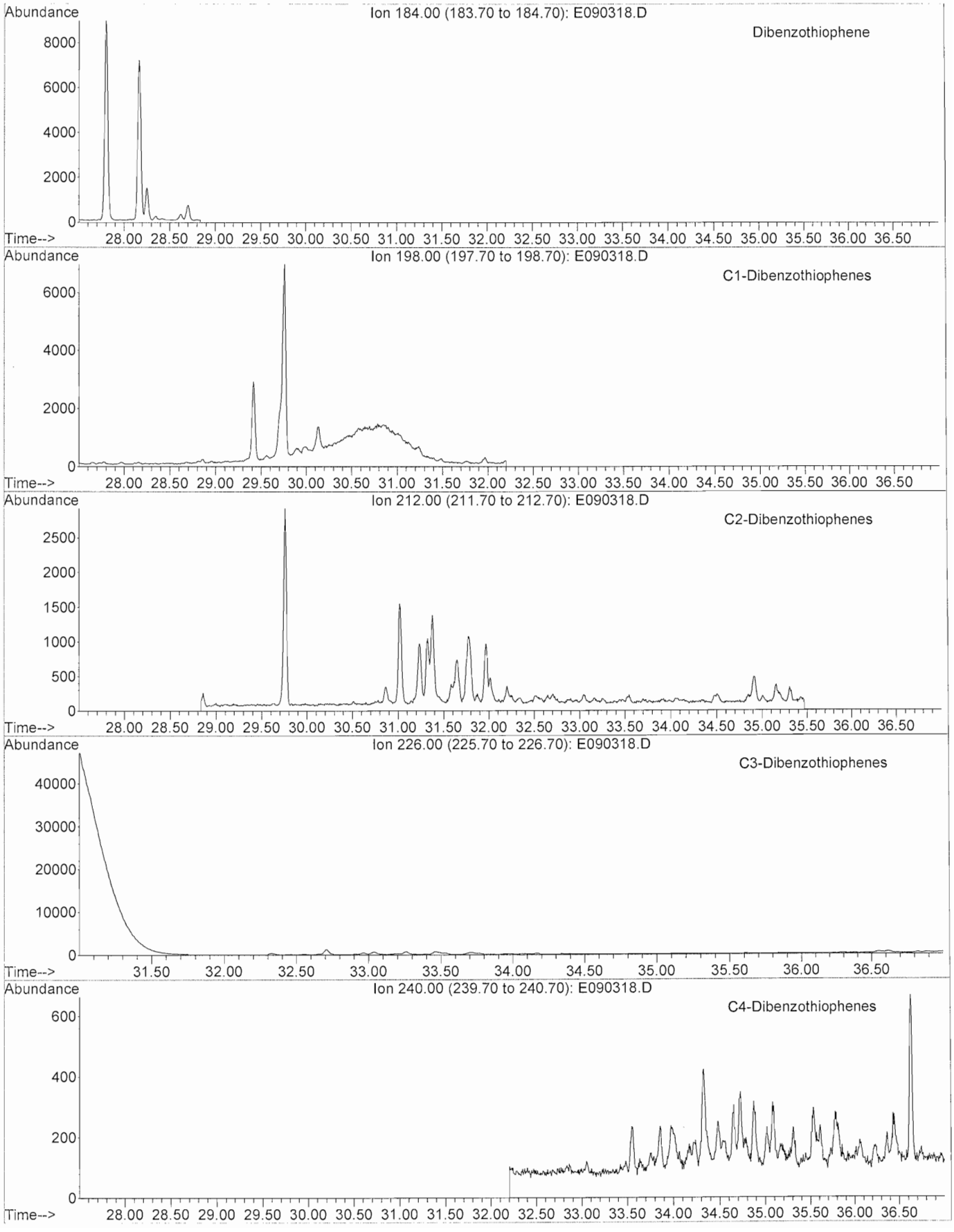
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

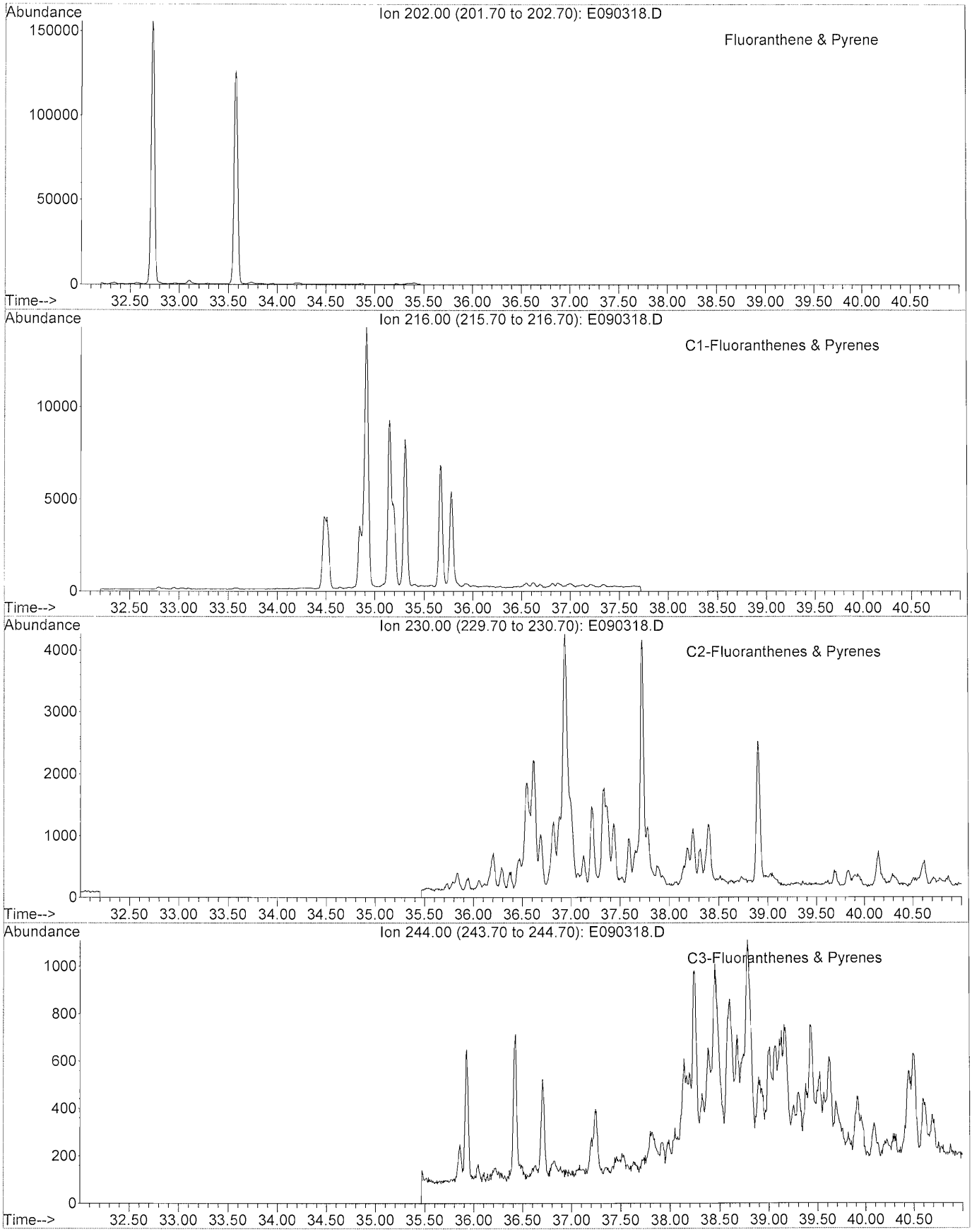
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

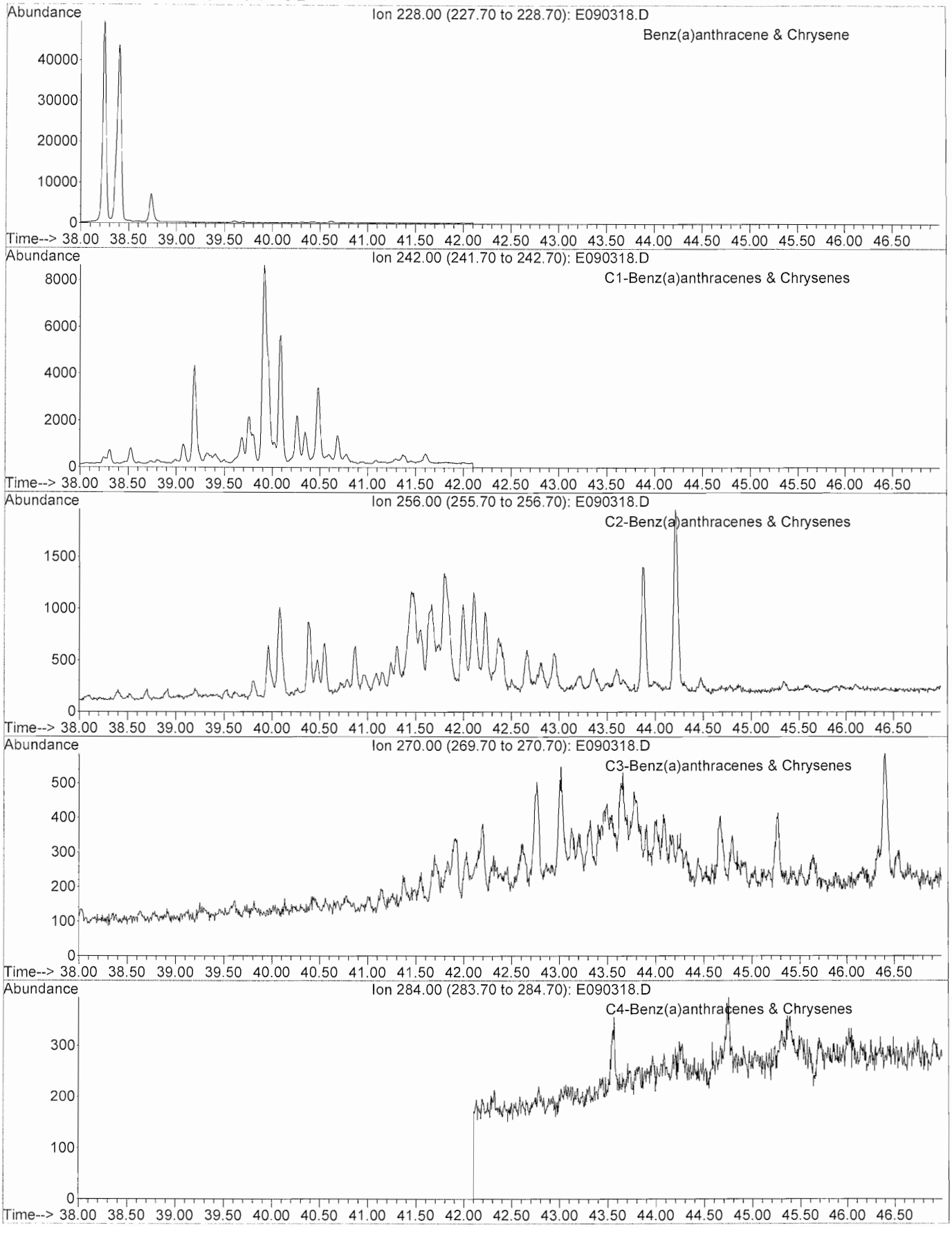
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

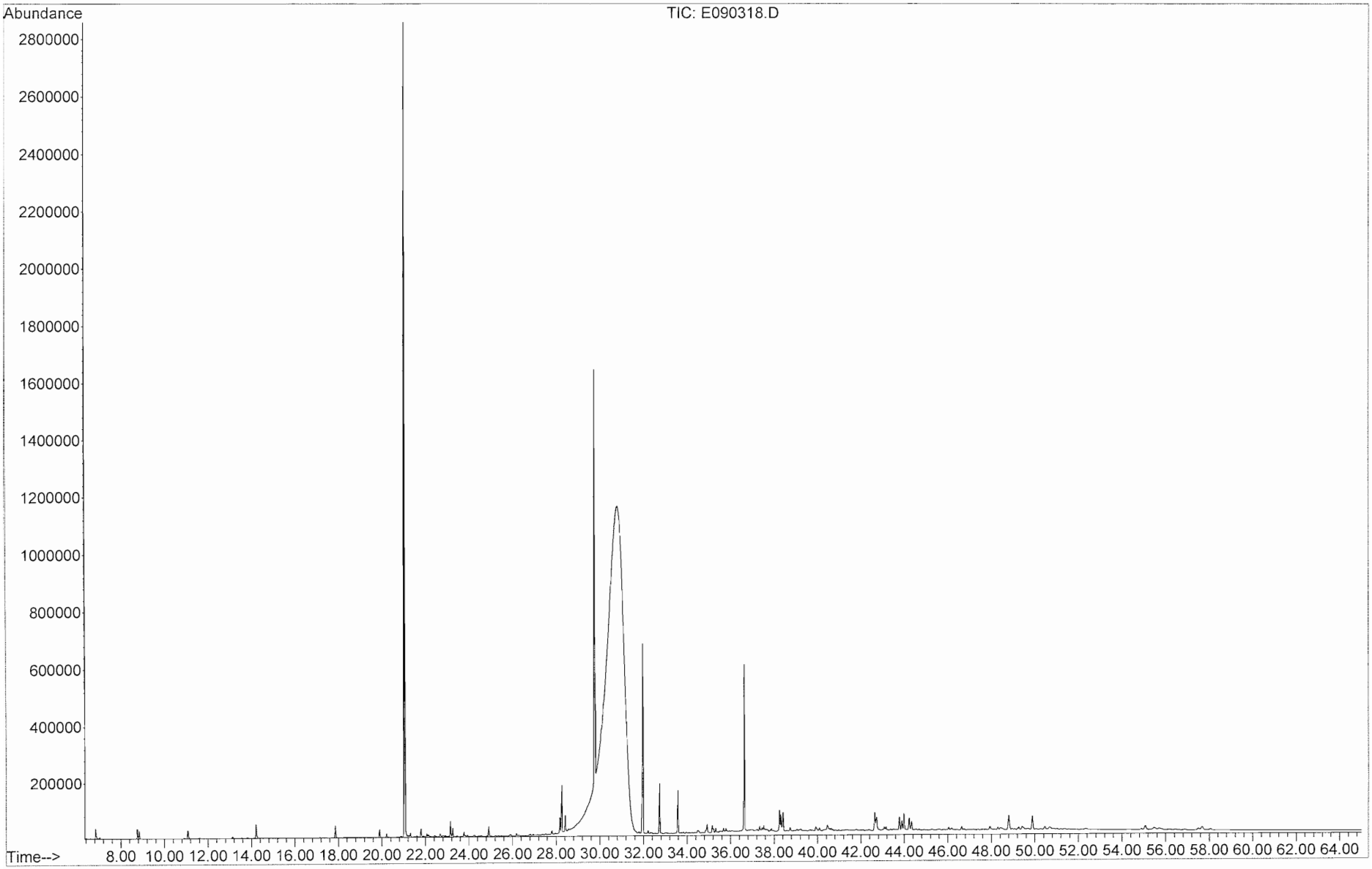
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

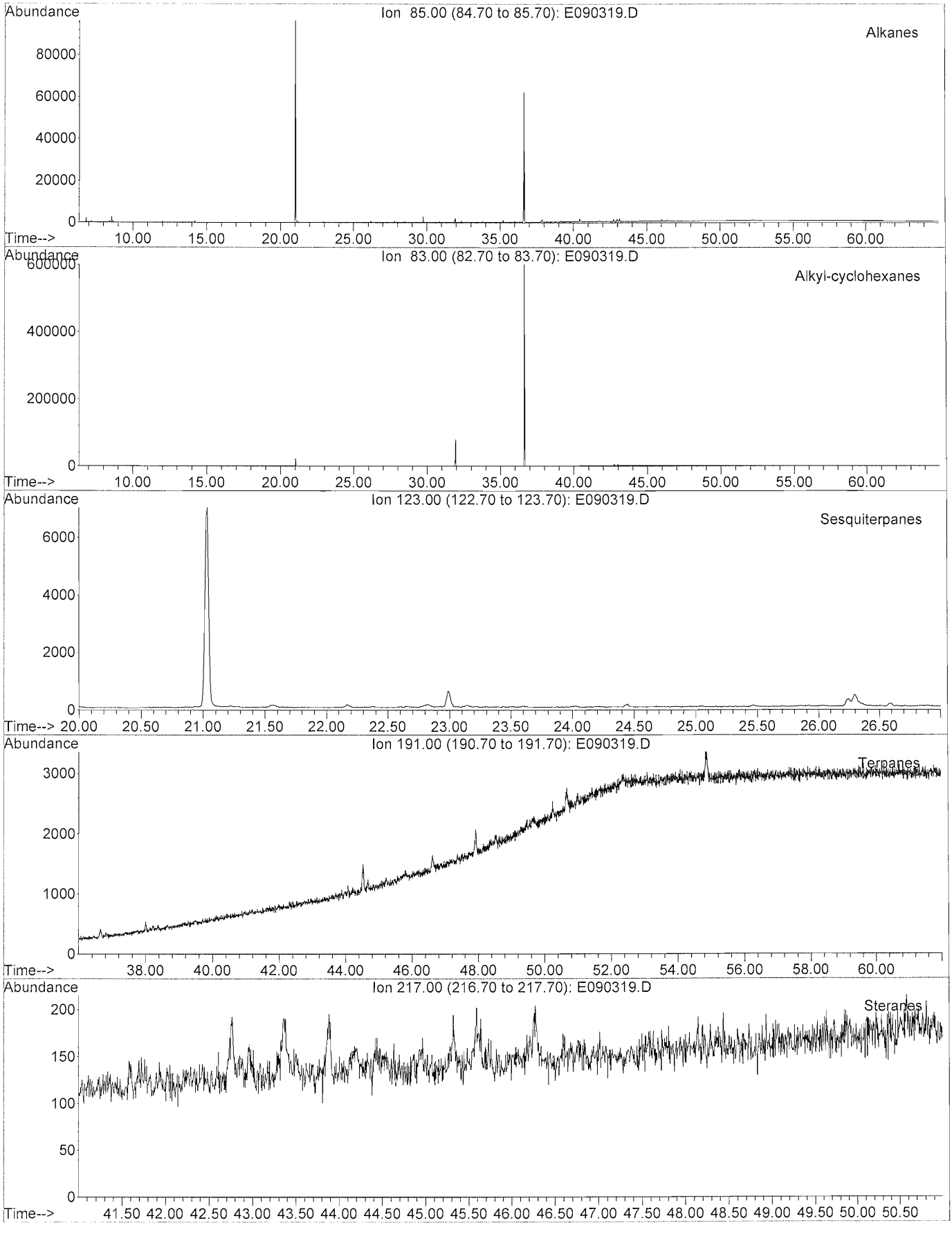
File: J:\1\DATA\E100903\E090318.D
Date Acquired: 4 Sep 2010 12:24 pm
Sample Name: TT100819-08
Misc Info: SD-97-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

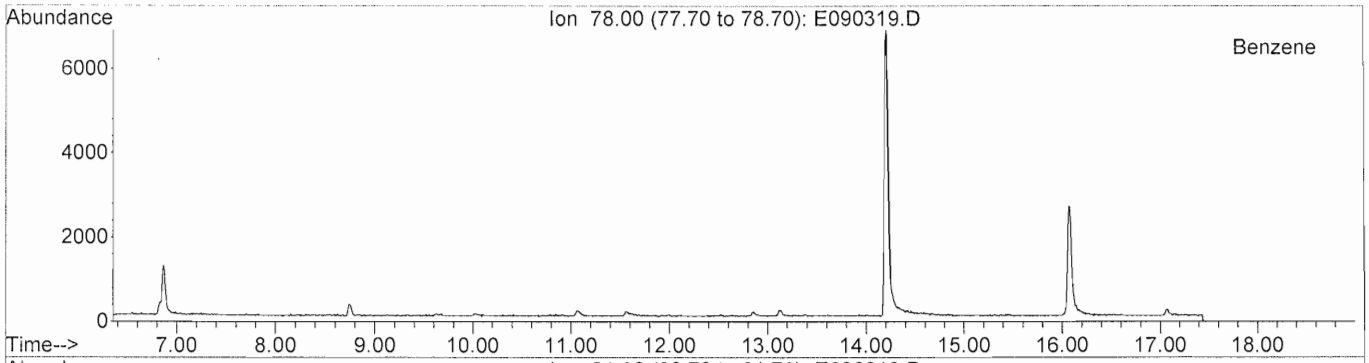
File: J:\1\DATA\E100903\E090319.D
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02

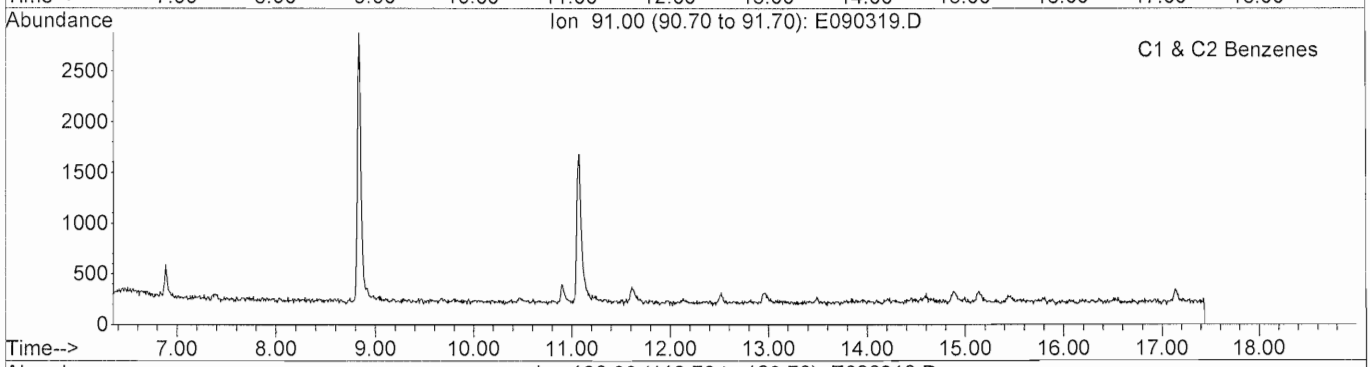


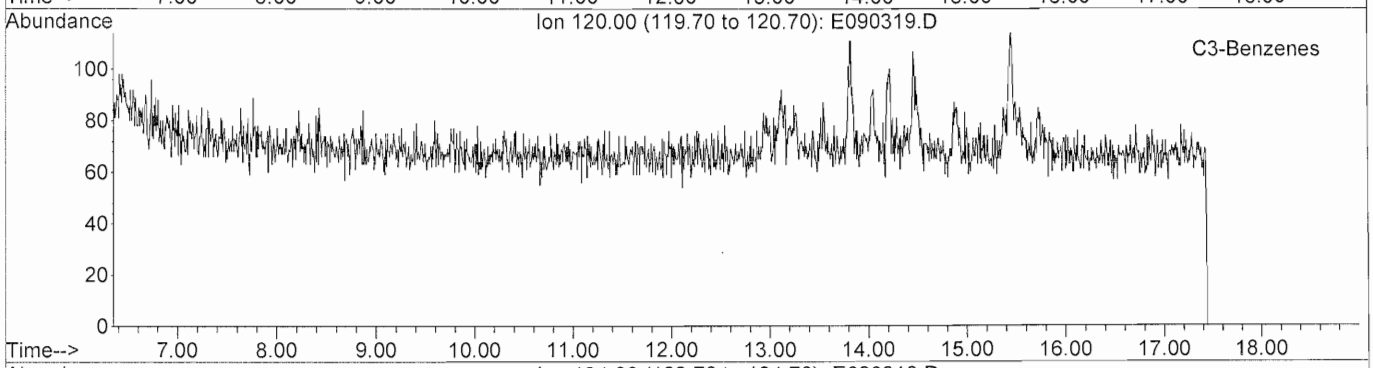
META Environmental, Inc.

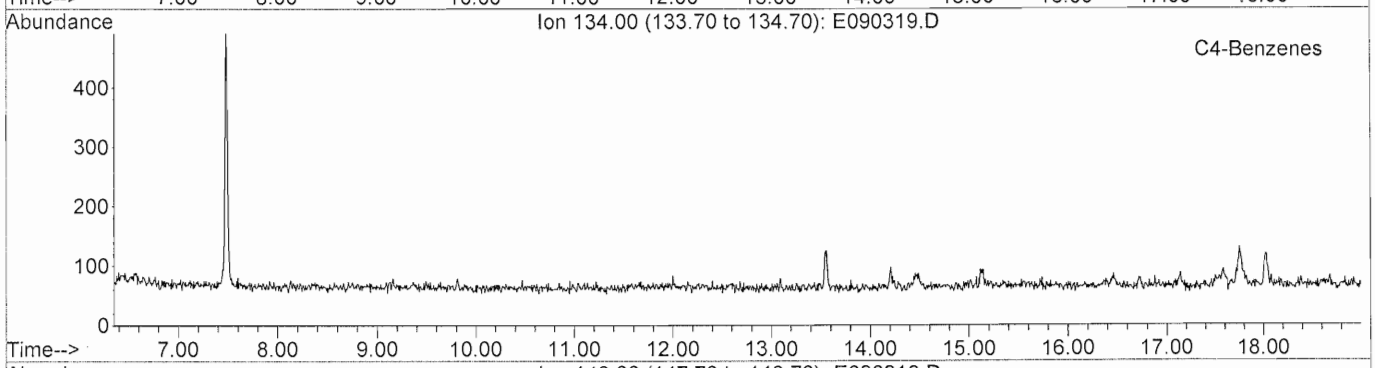
GC/MS EXTRACTED ION CHROMATOGRAM

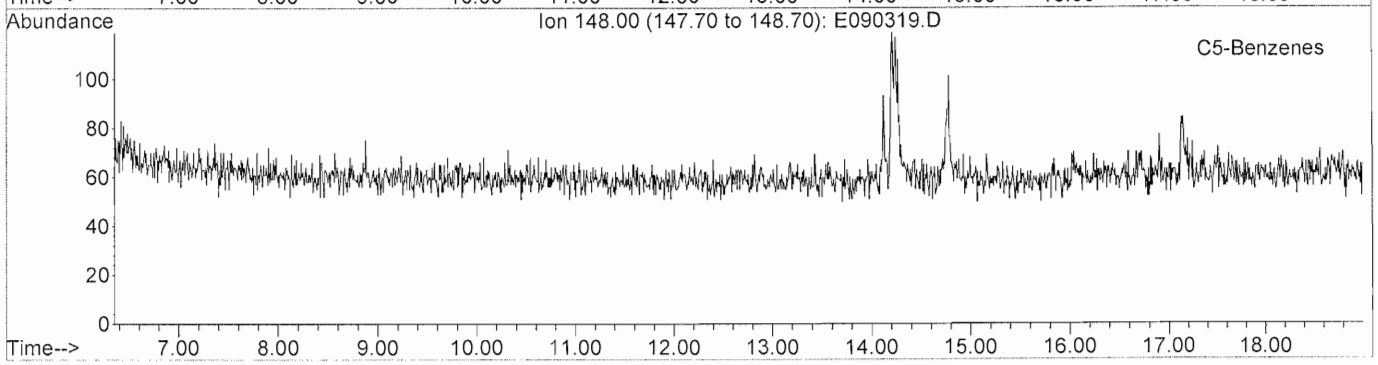
File: J:\1\DATA\E100903\E090319.D
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02







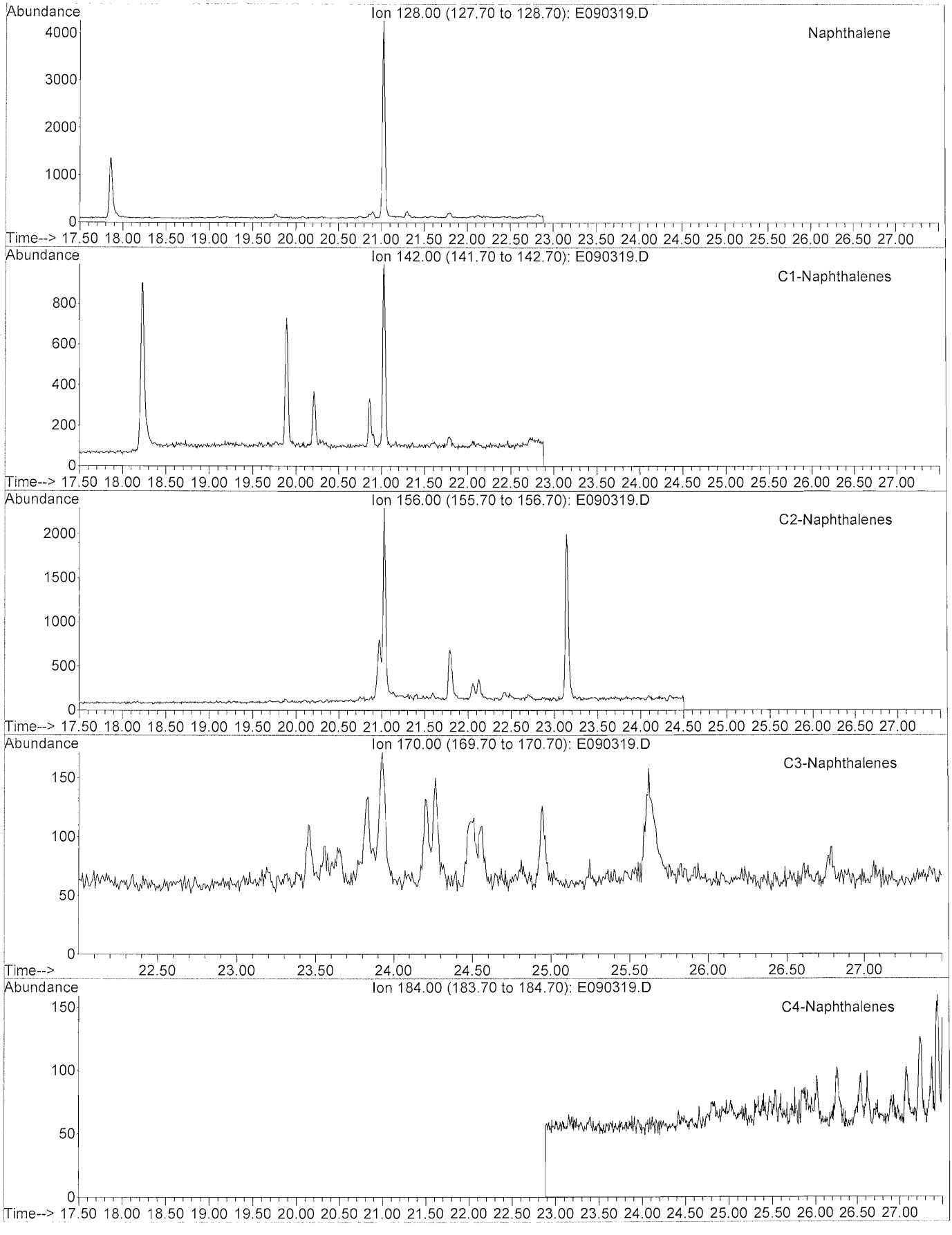




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090319.D
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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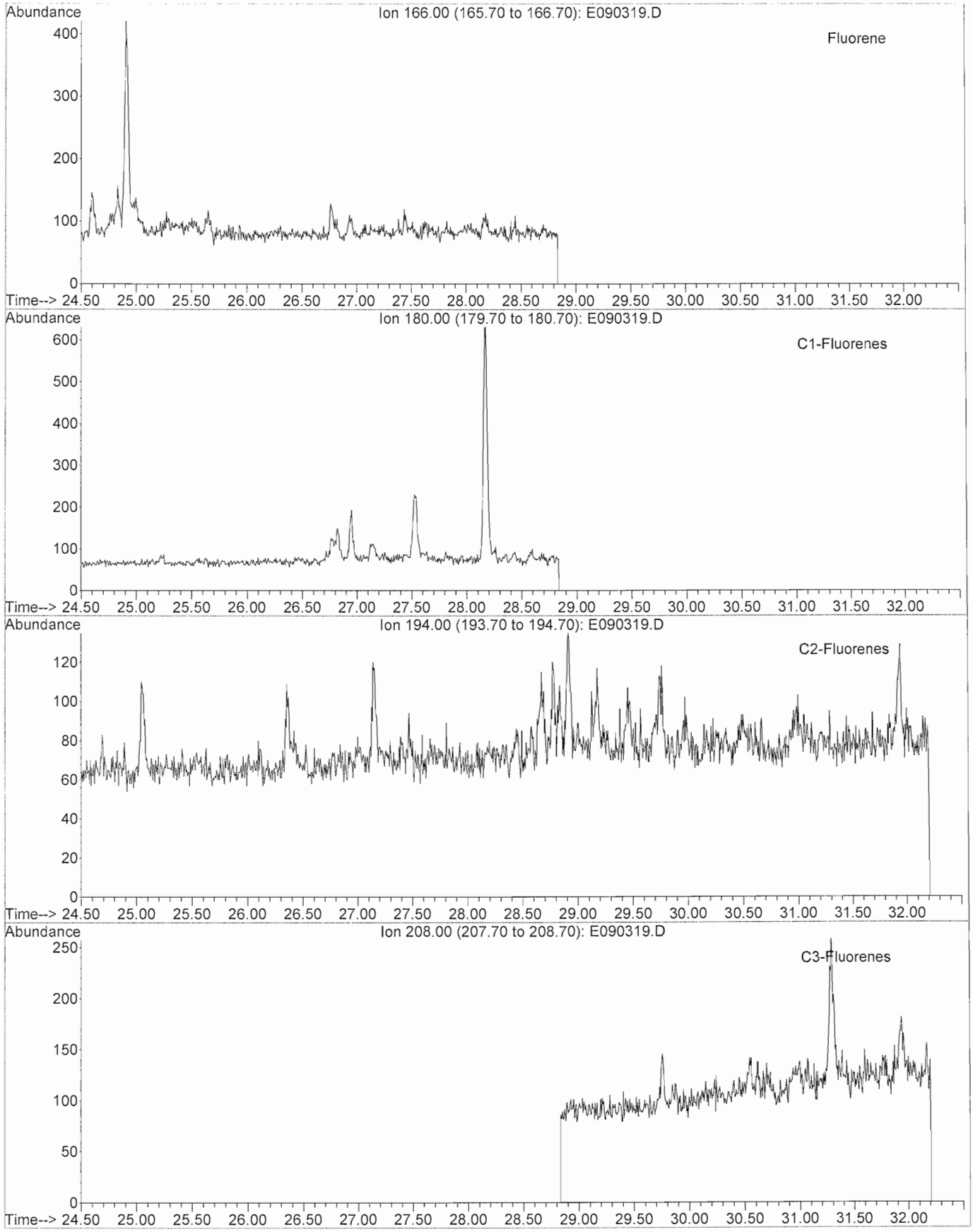
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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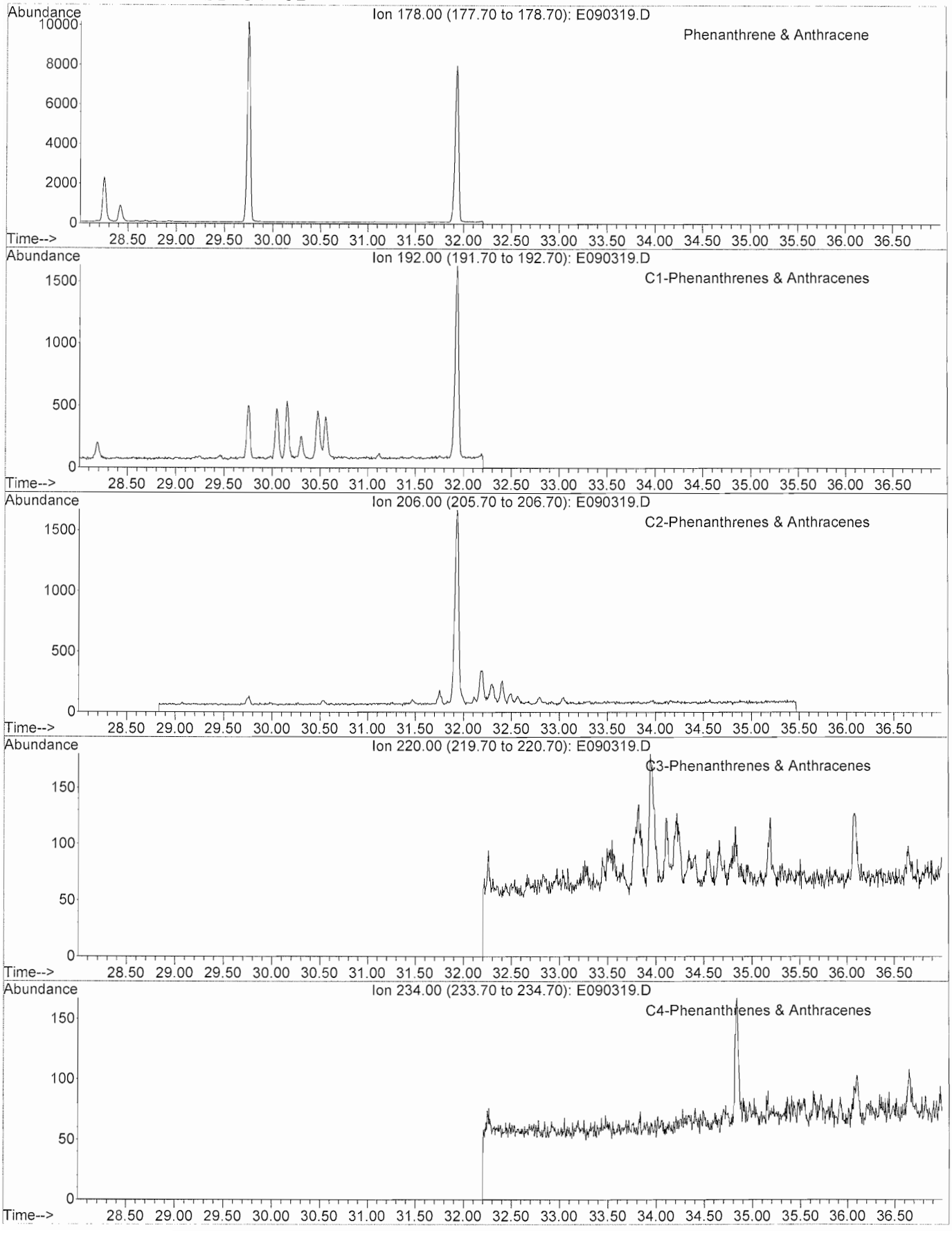
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
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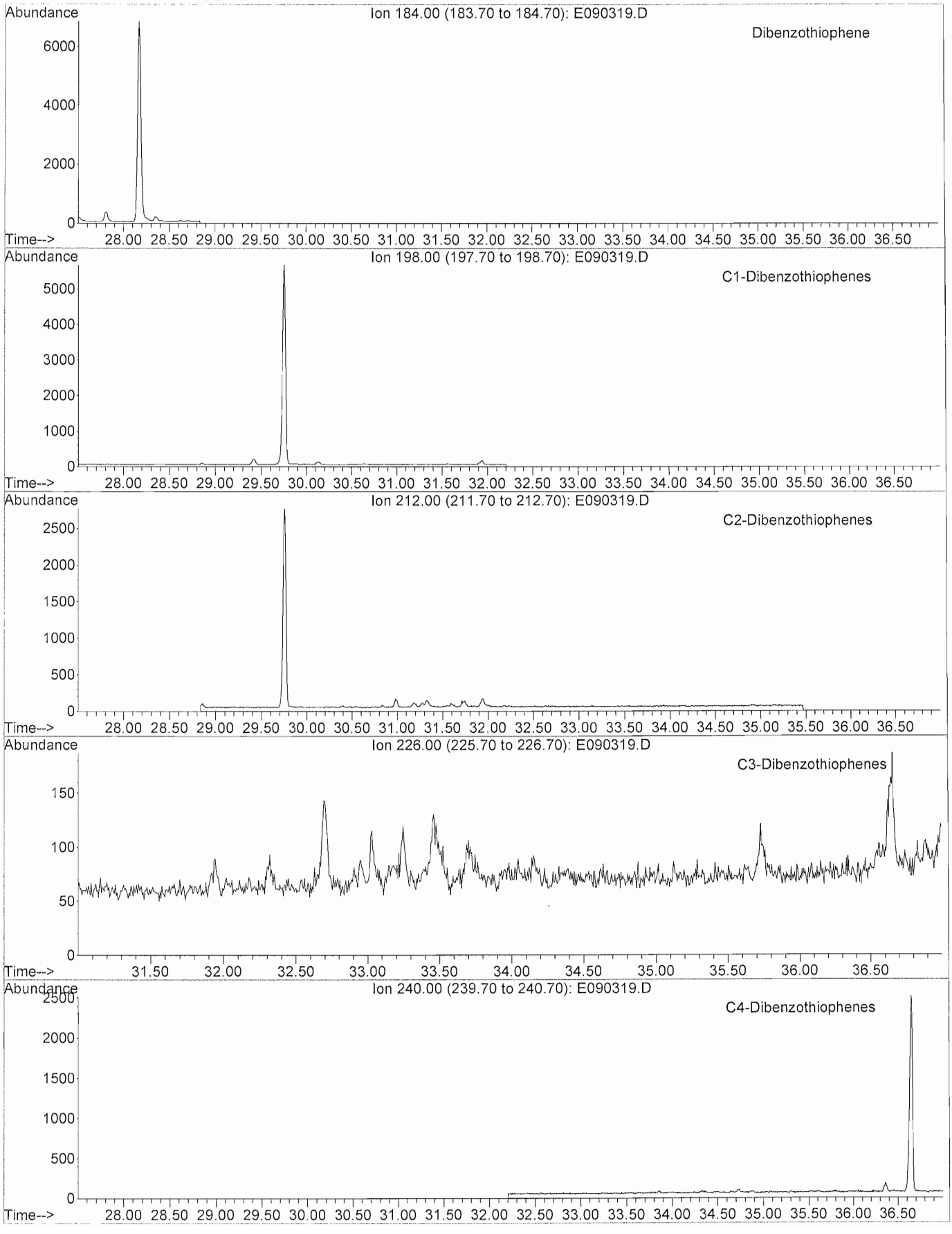

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
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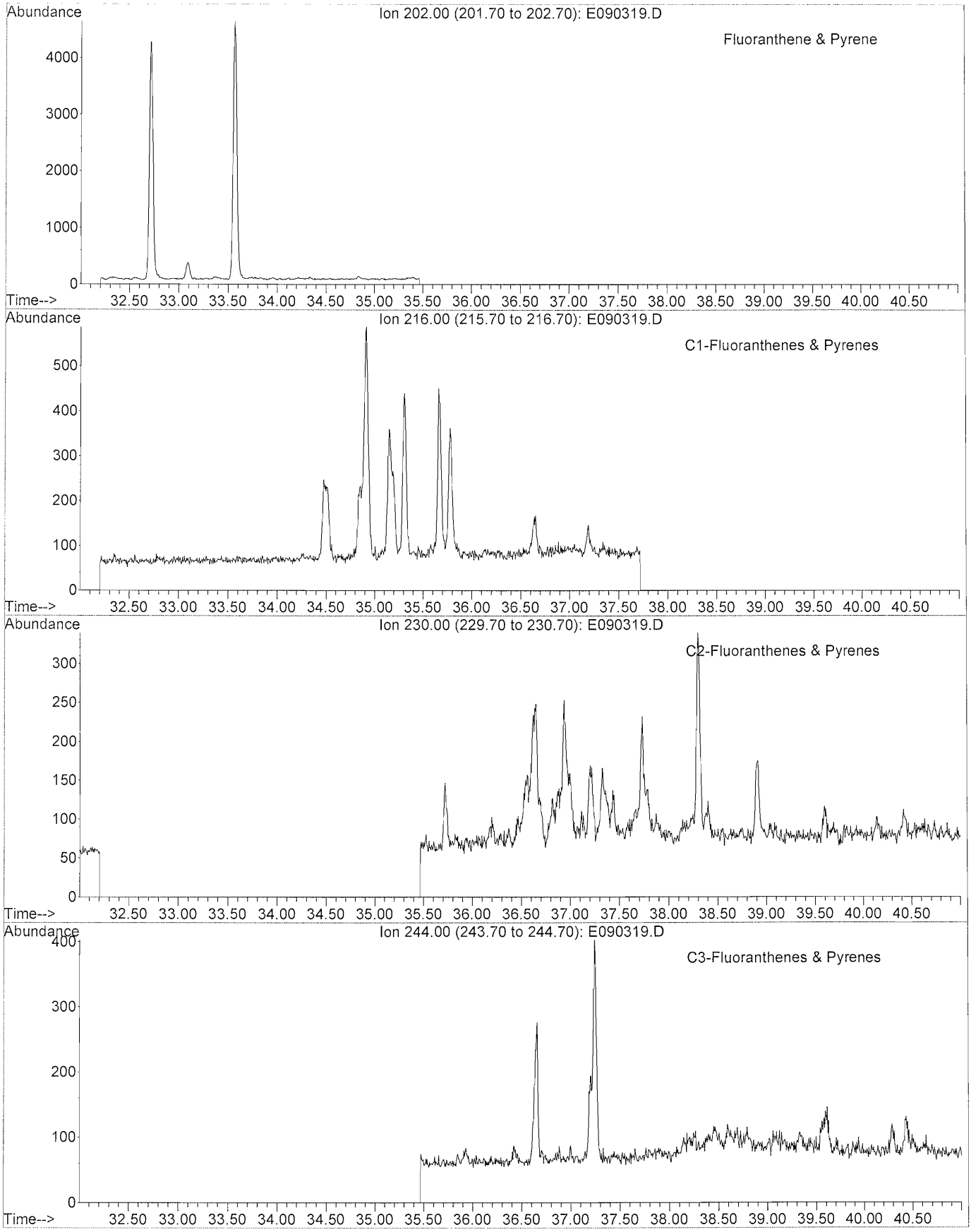

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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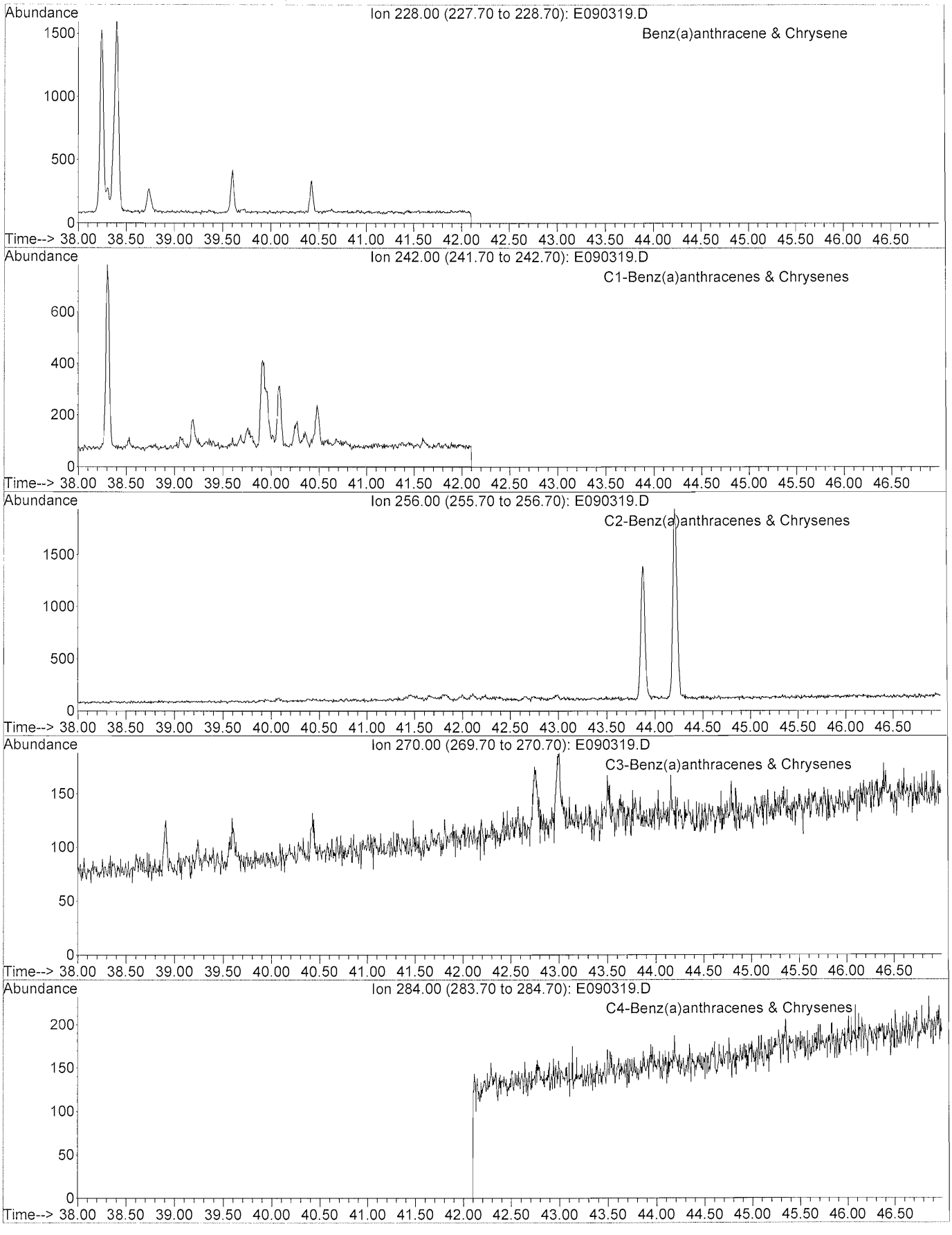
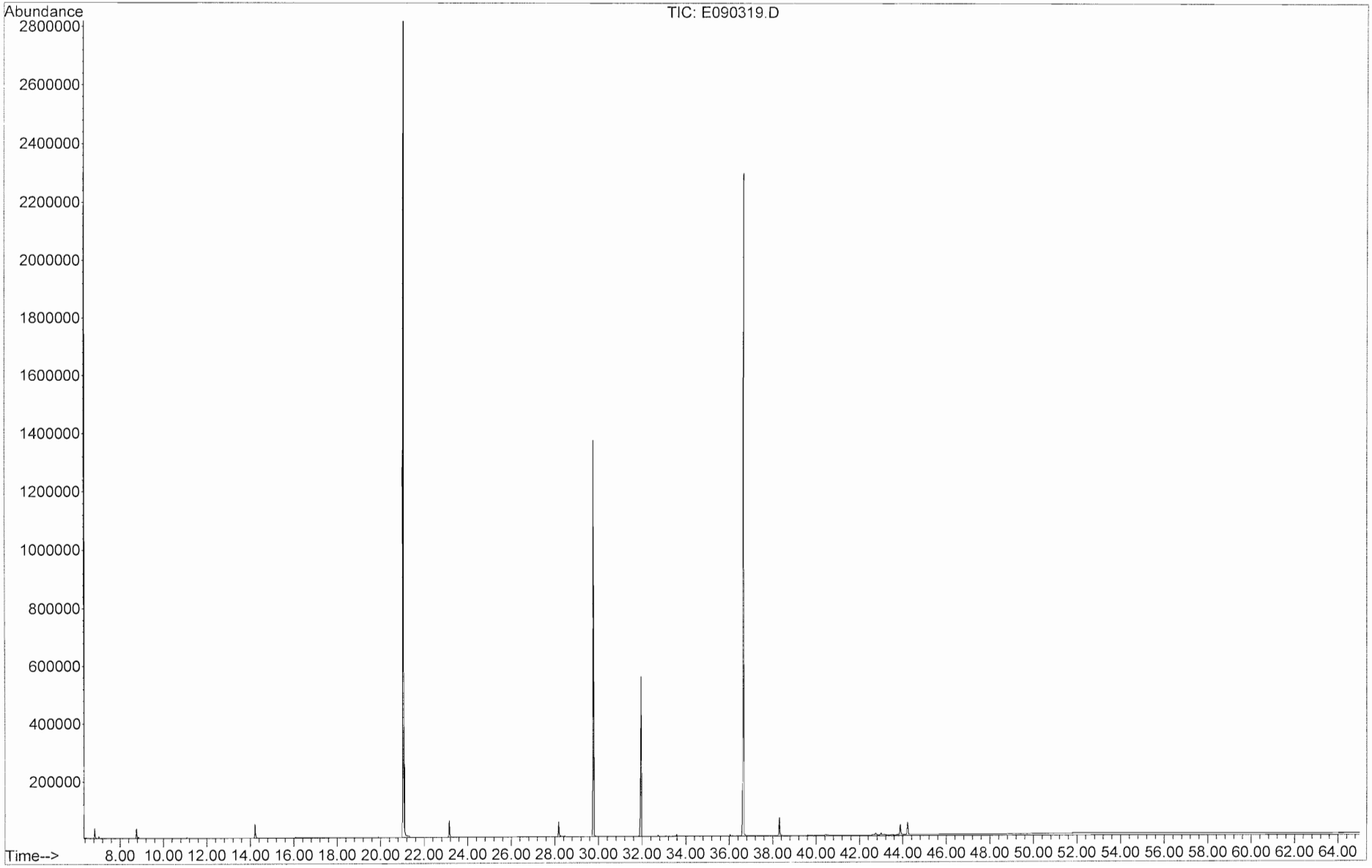


META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

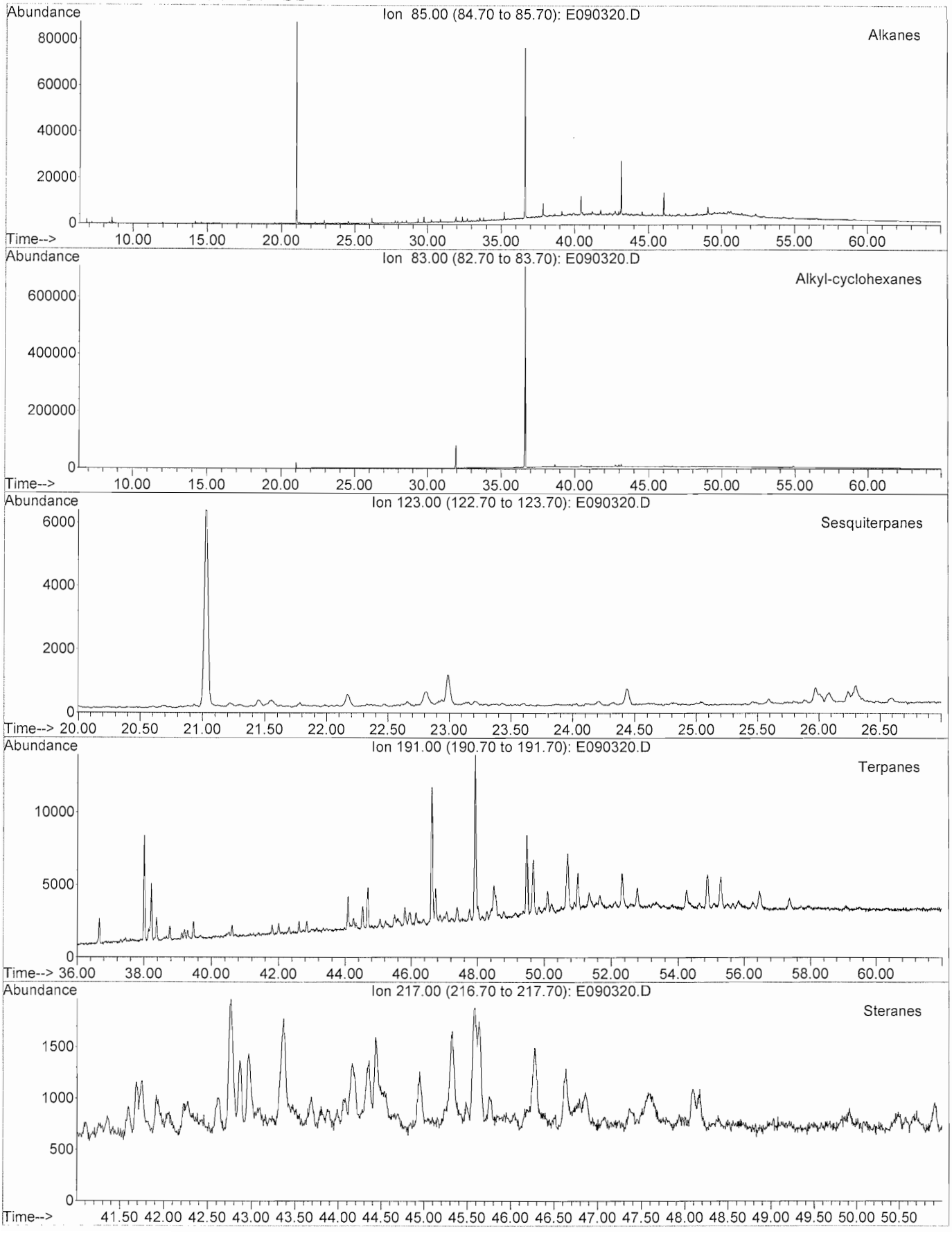
File: J:\1\DATA\E100903\E090319.D
Date Acquired: 4 Sep 2010 1:45 pm
Sample Name: TT100819-09
Misc Info: SD-97-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

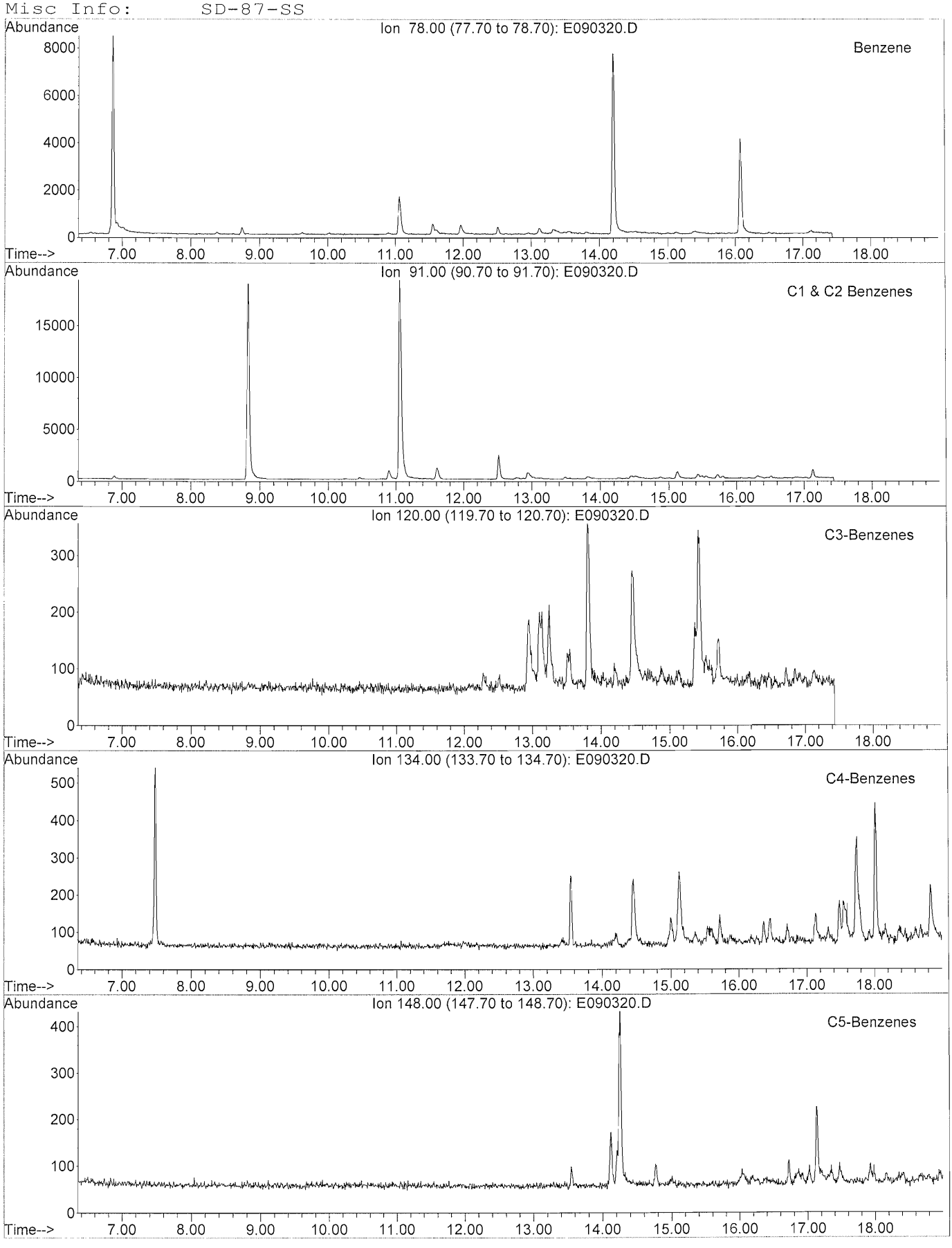
File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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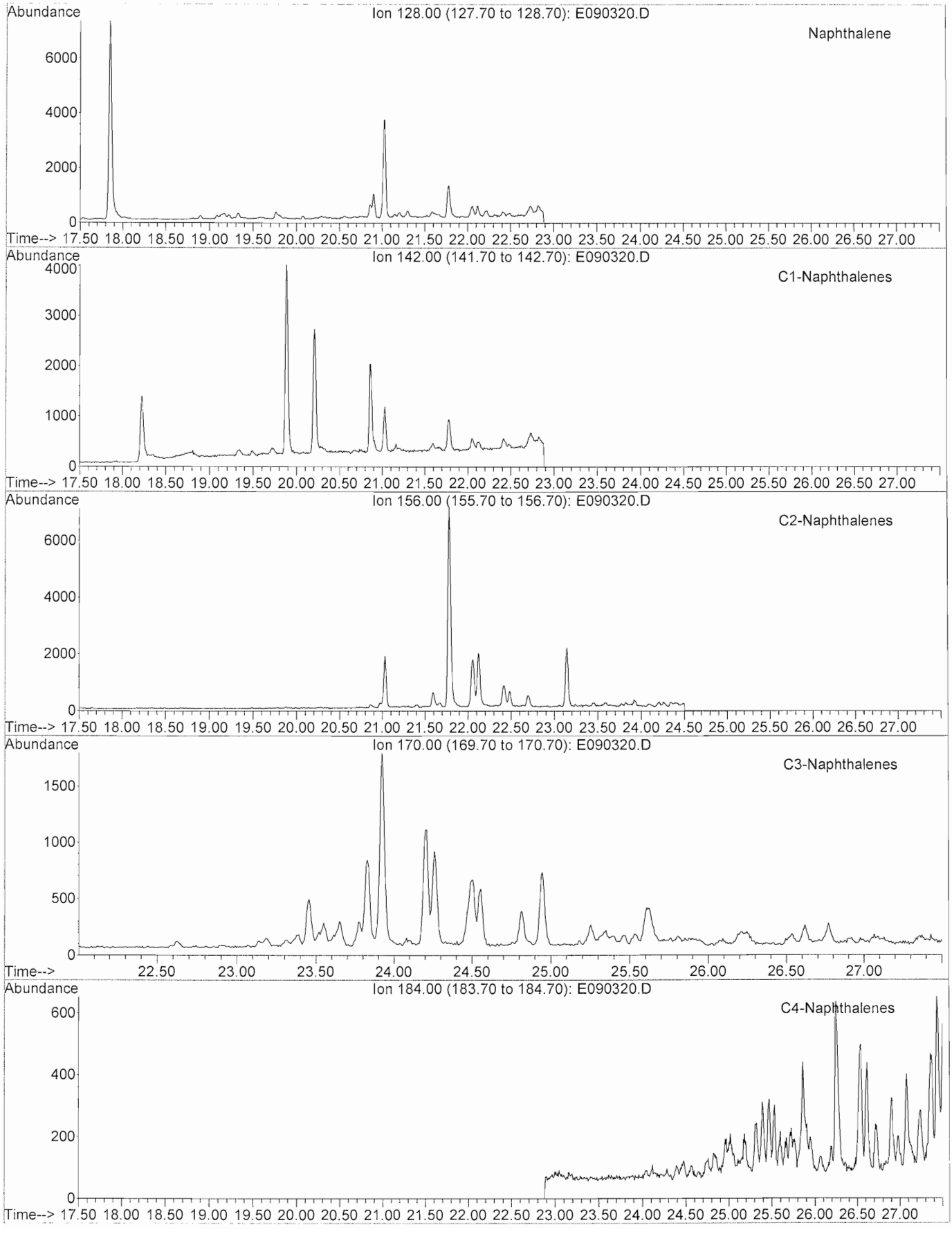
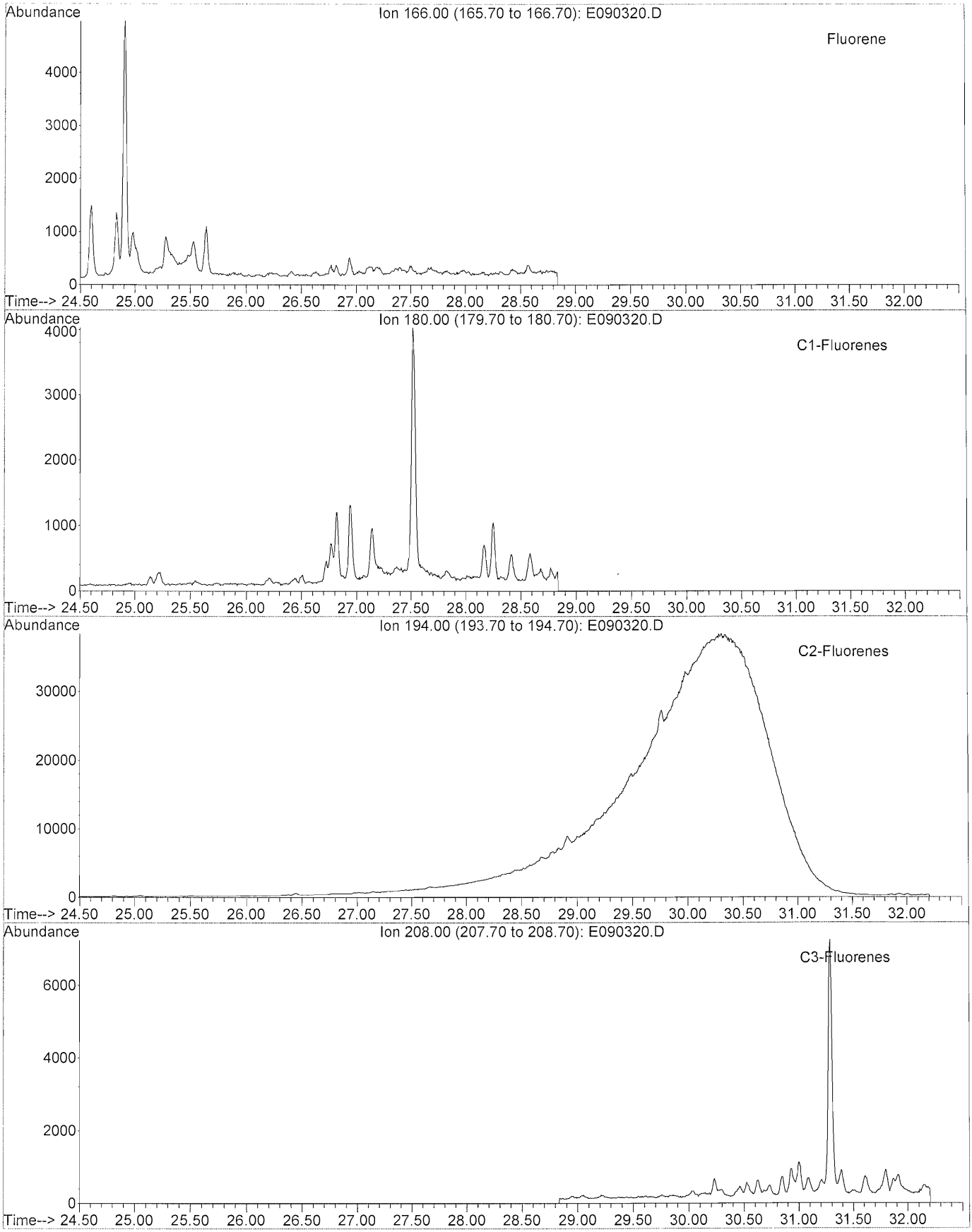
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

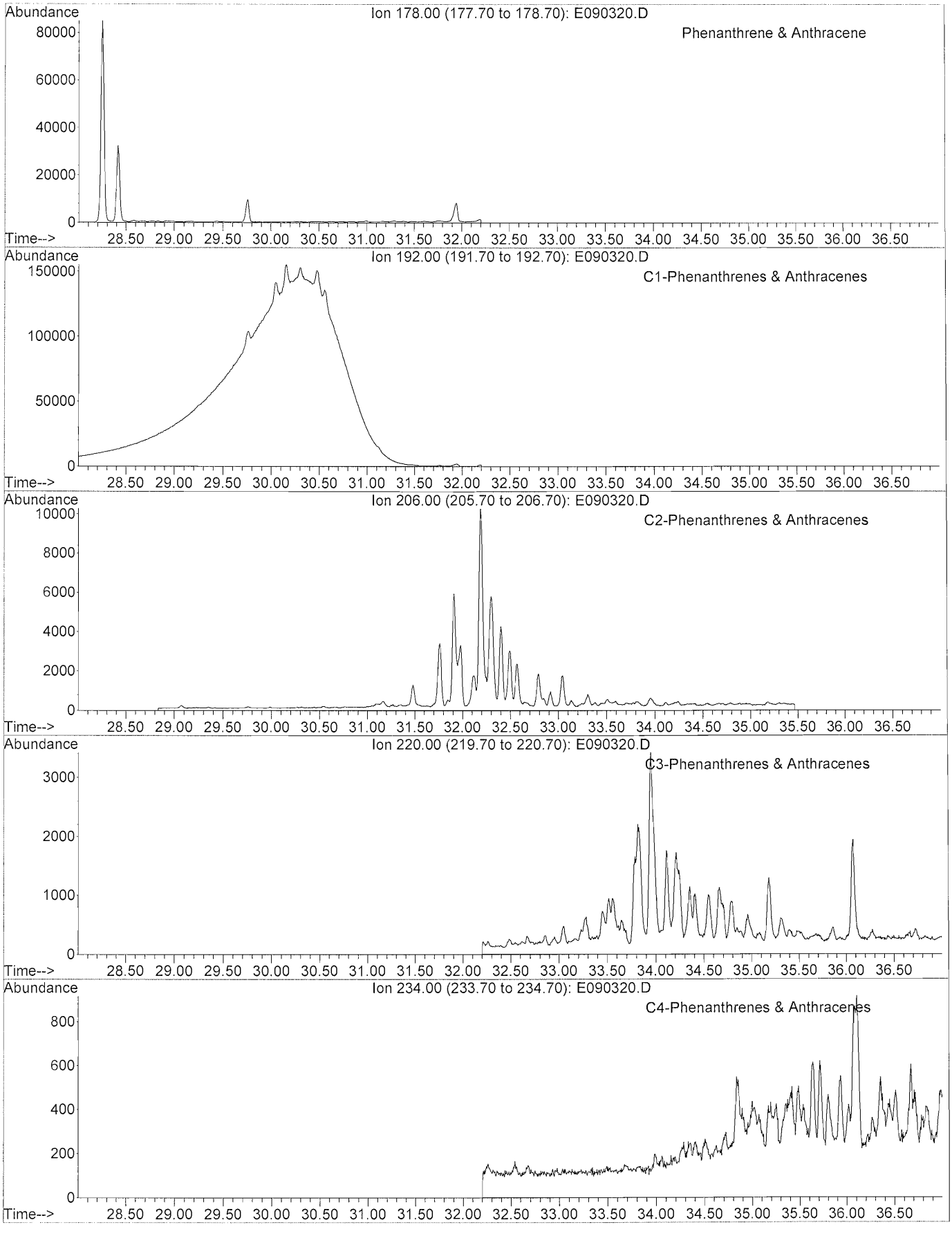
File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

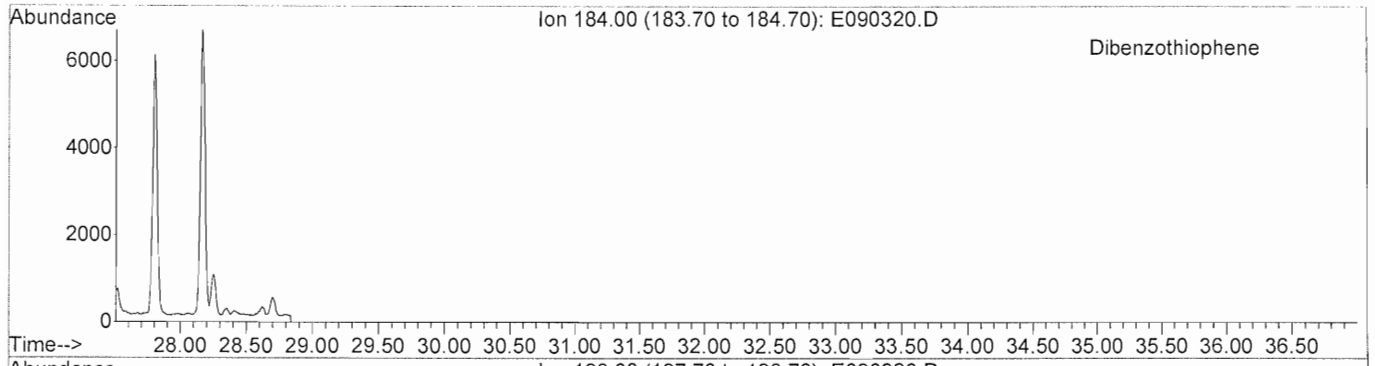
File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS

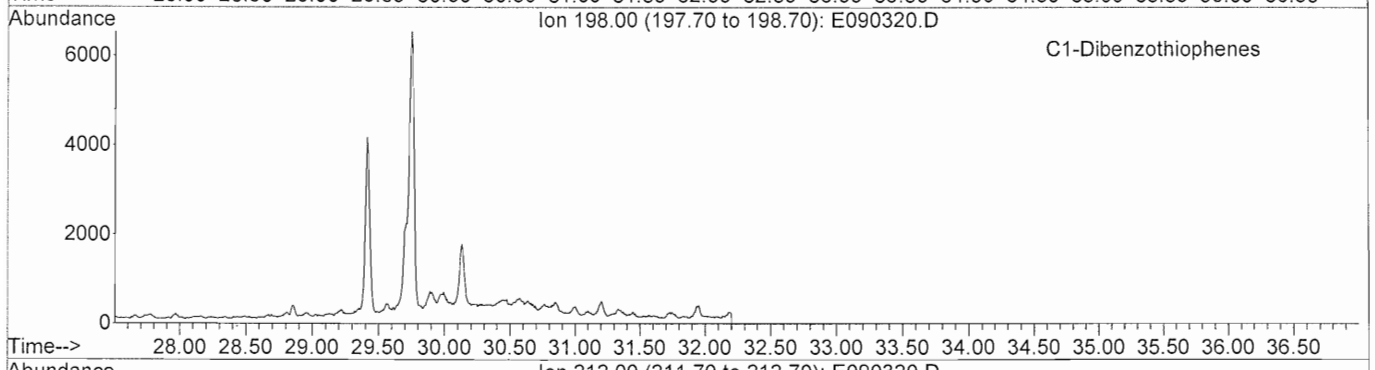


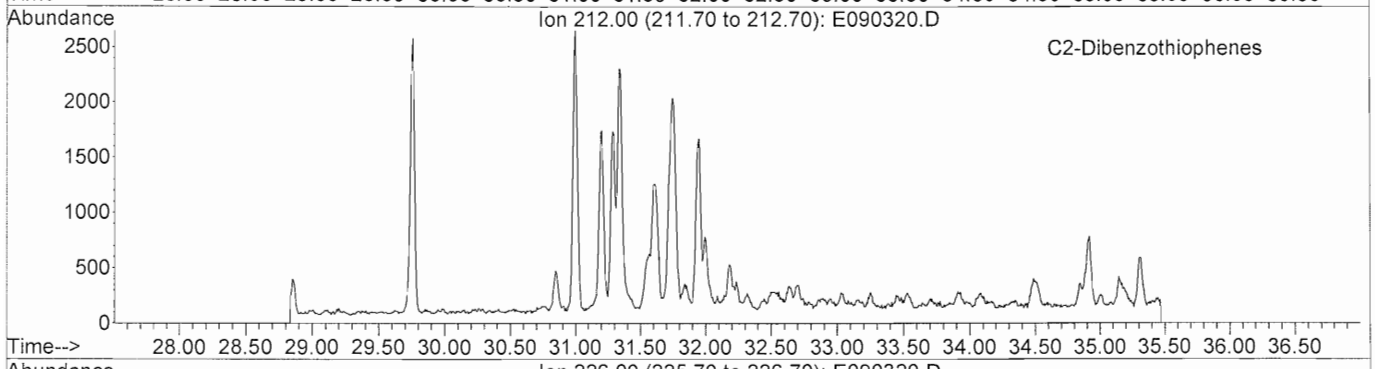
META Environmental, Inc.

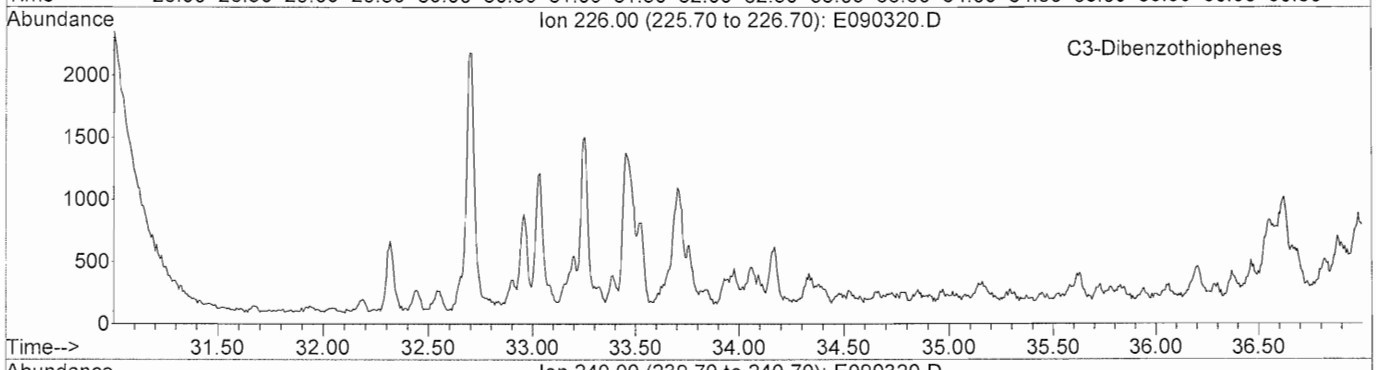
GC/MS EXTRACTED ION CHROMATOGRAM

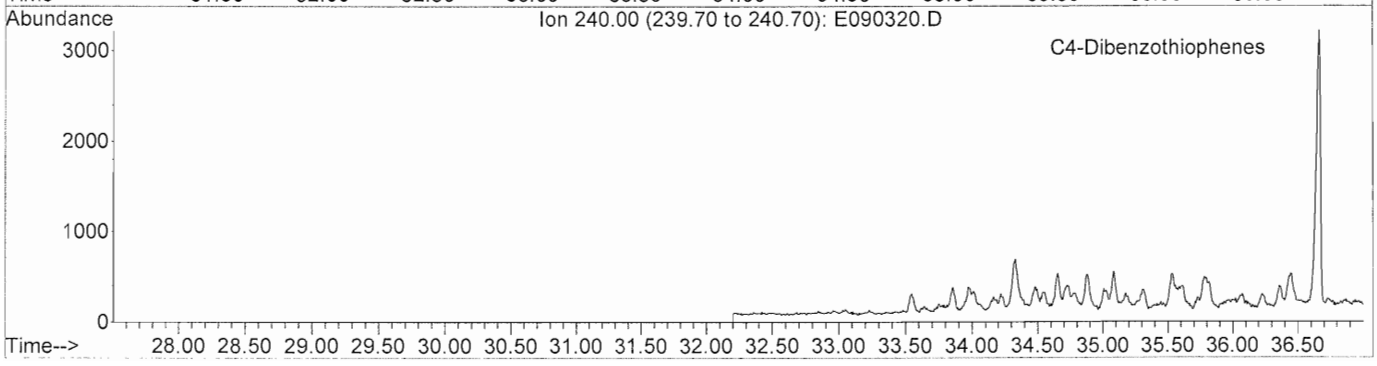
File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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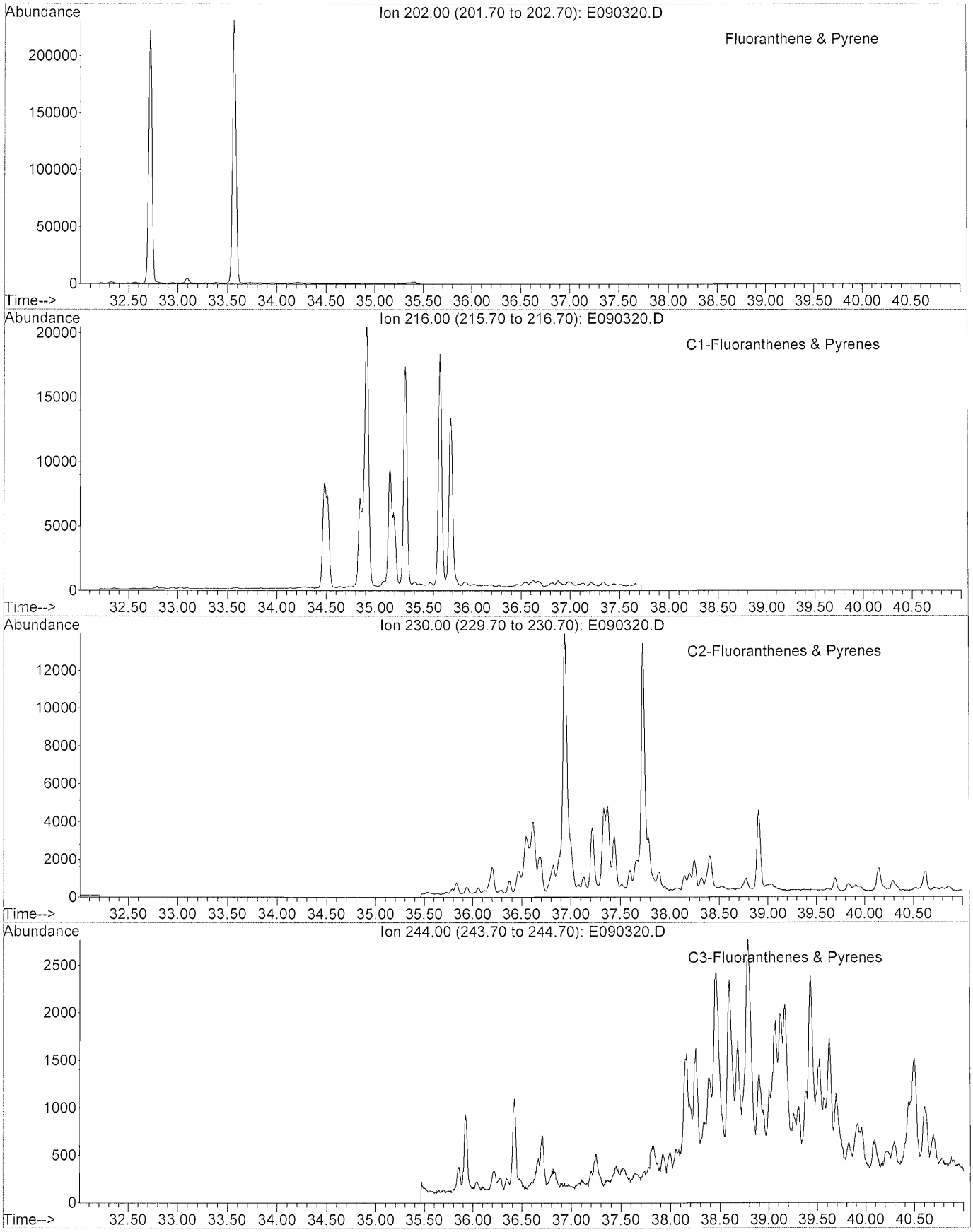

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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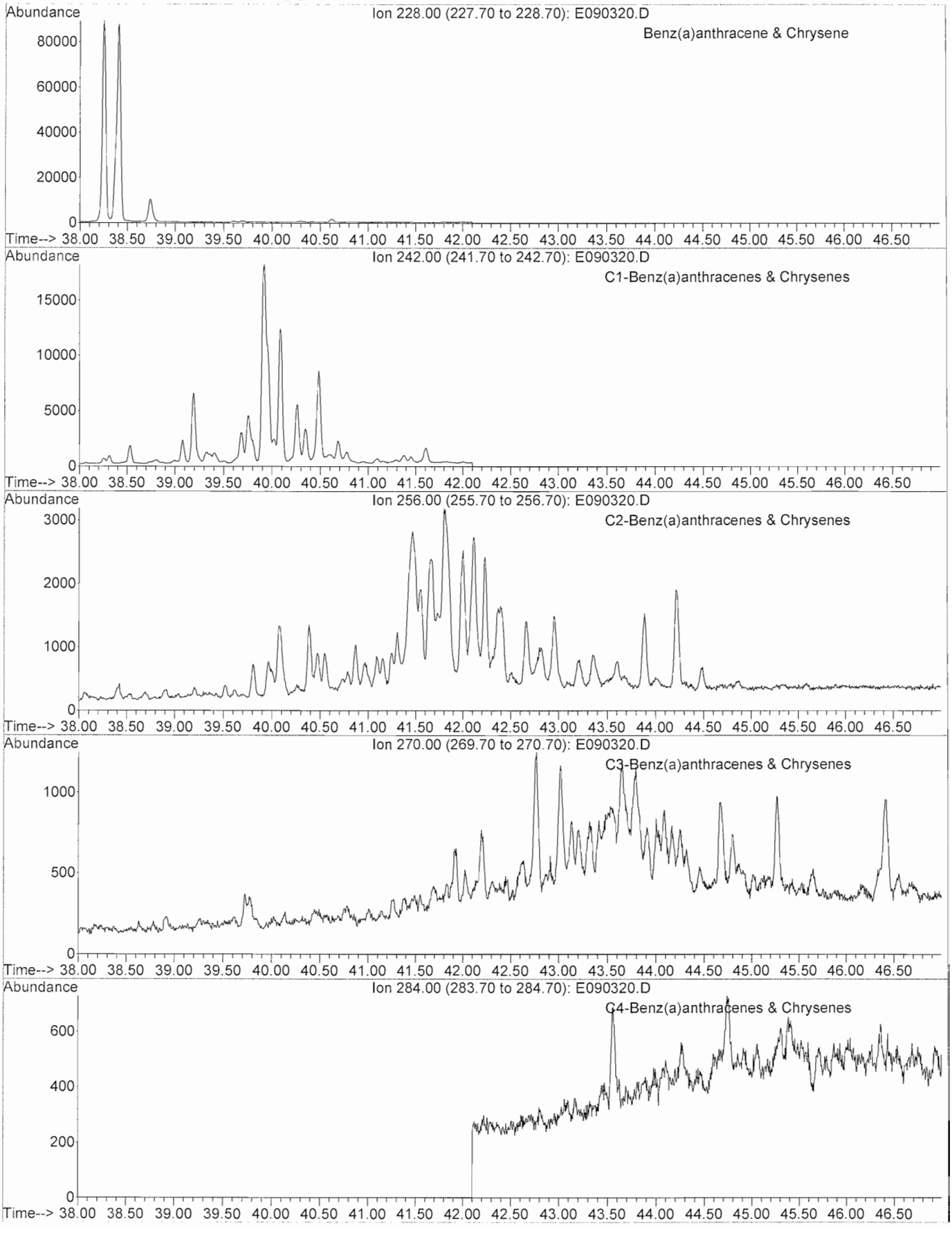
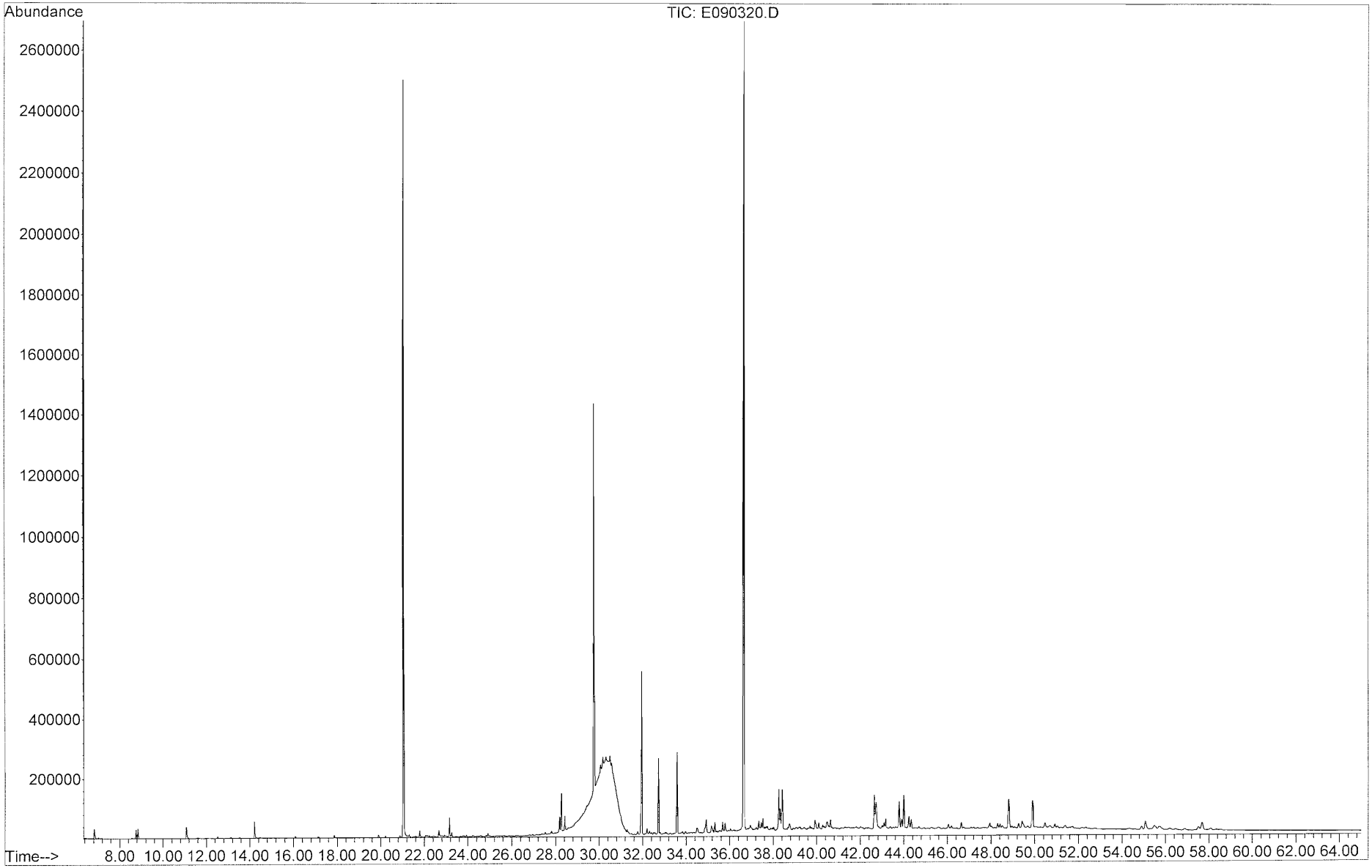


META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

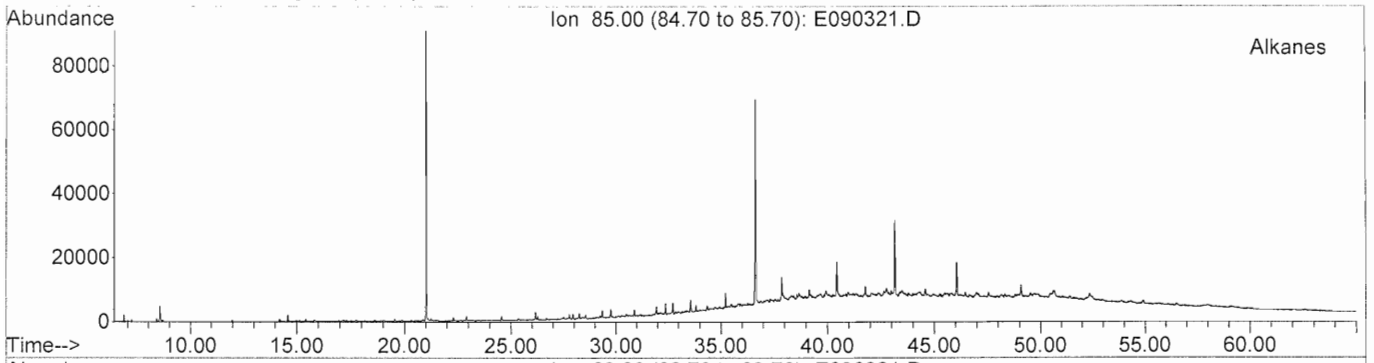
File: J:\1\DATA\E100903\E090320.D
Date Acquired: 4 Sep 2010 3:05 pm
Sample Name: TT100819-10
Misc Info: SD-87-SS

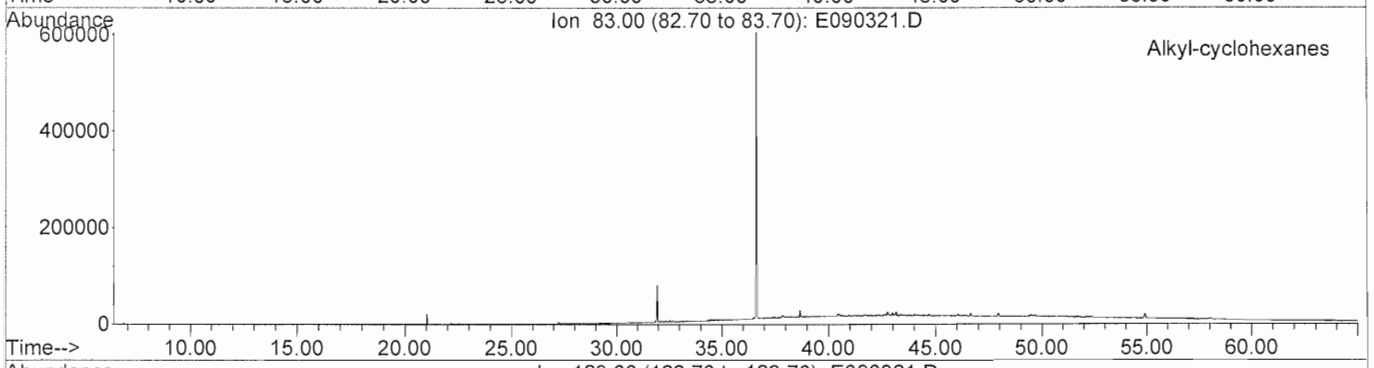


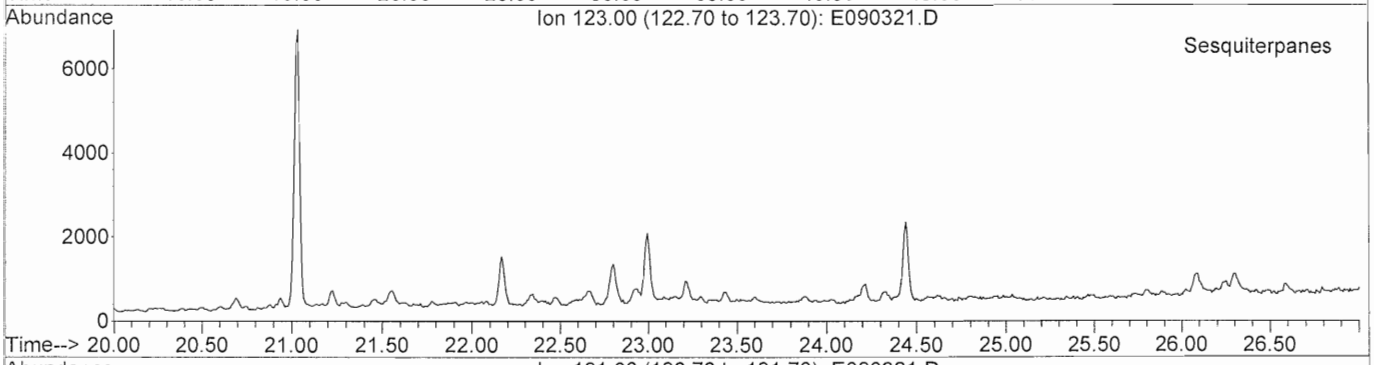
META Environmental, Inc.

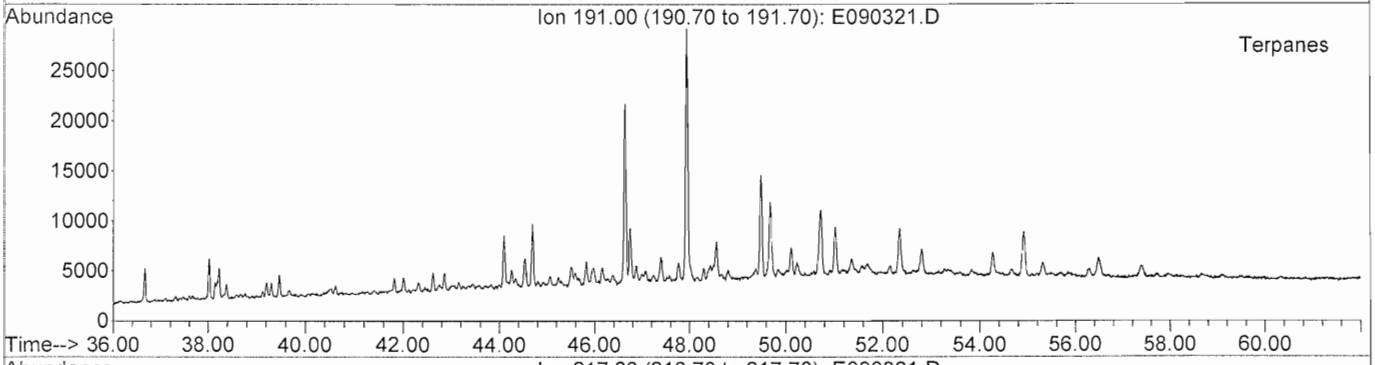
GC/MS EXTRACTED ION CHROMATOGRAM

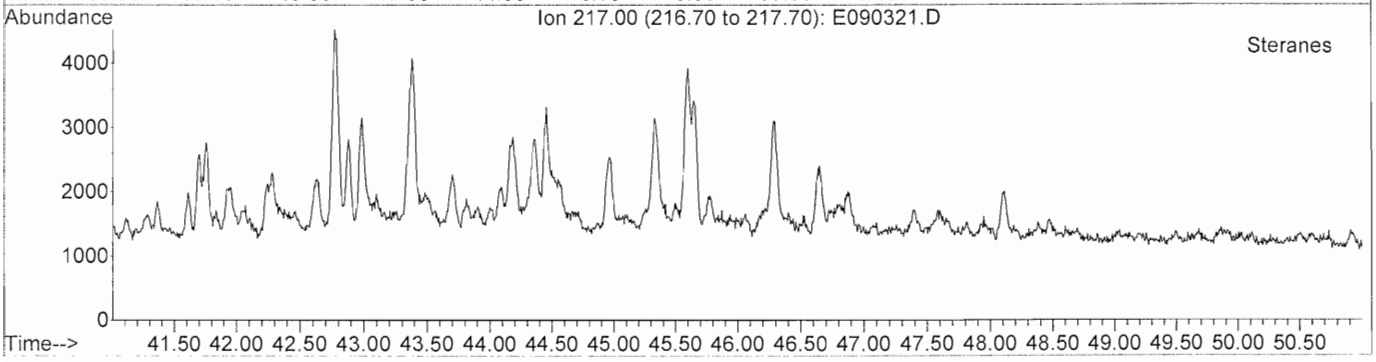
File: J:\1\DATA\E100903\E090321.D
Date Acquired: 4 Sep 2010 4:26 pm
Sample Name: TT100819-11
Misc Info: SD-87-01











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090321.D
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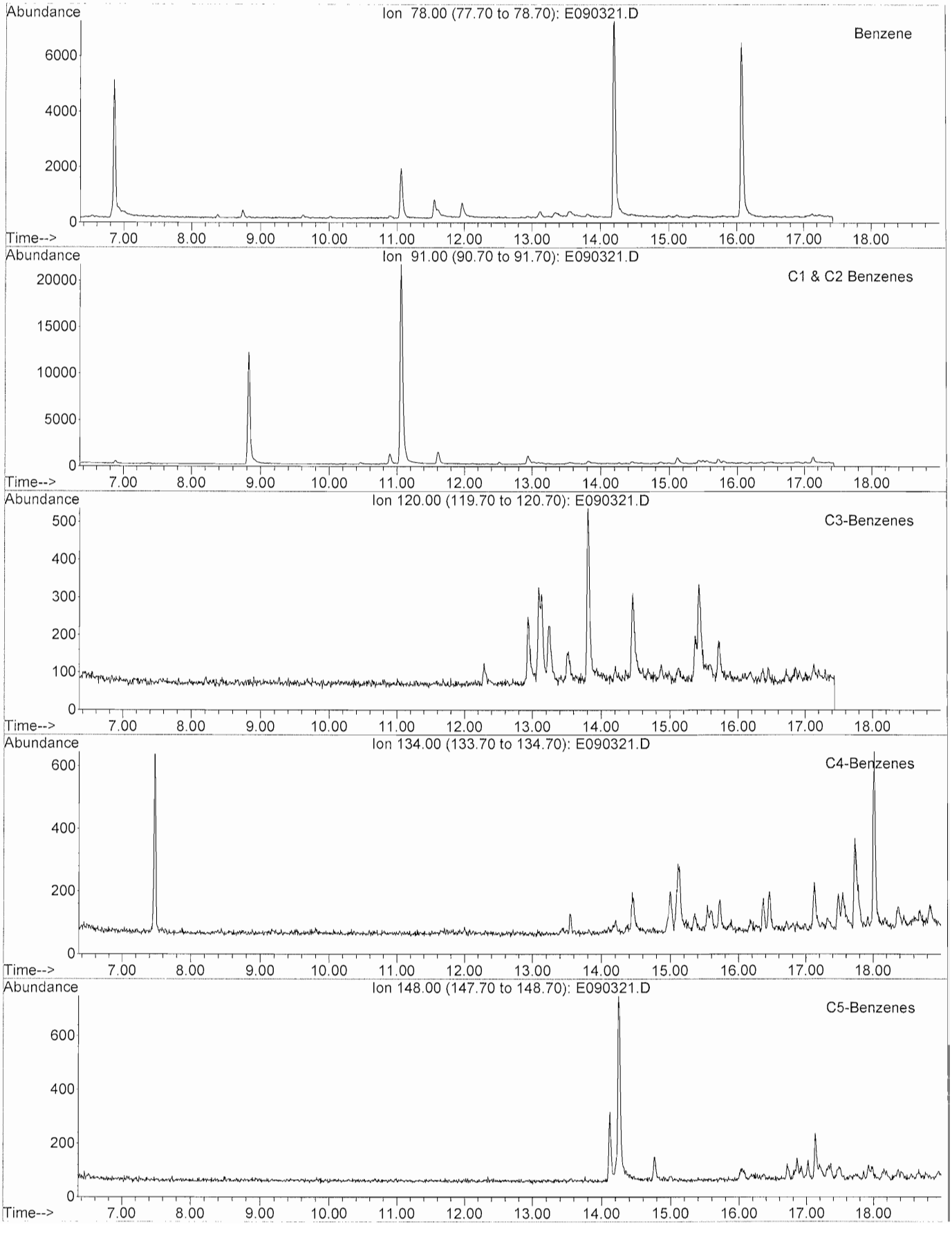
Sample Name: TT100819-11
Misc Info: SD-87-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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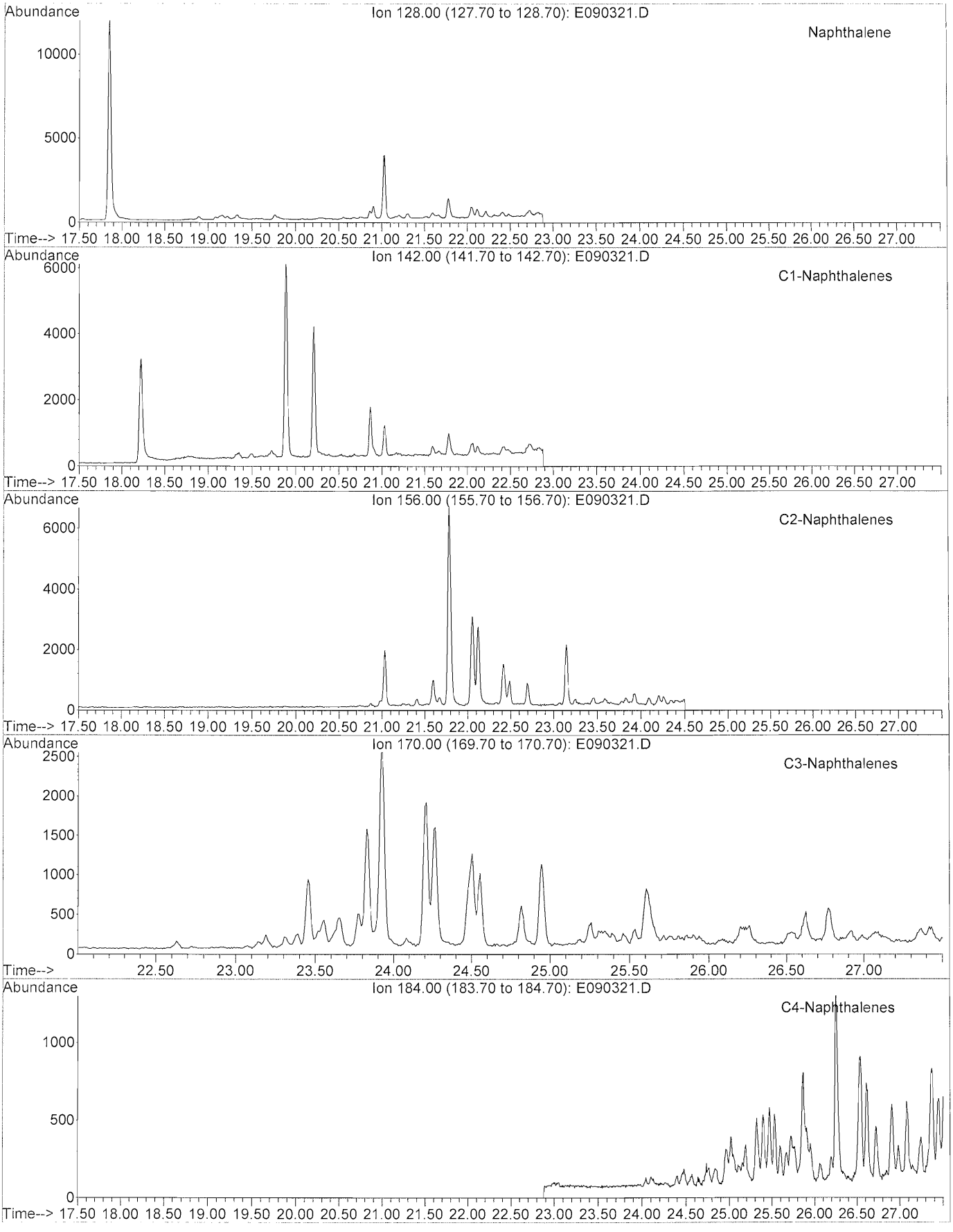
Misc Info: SD-87-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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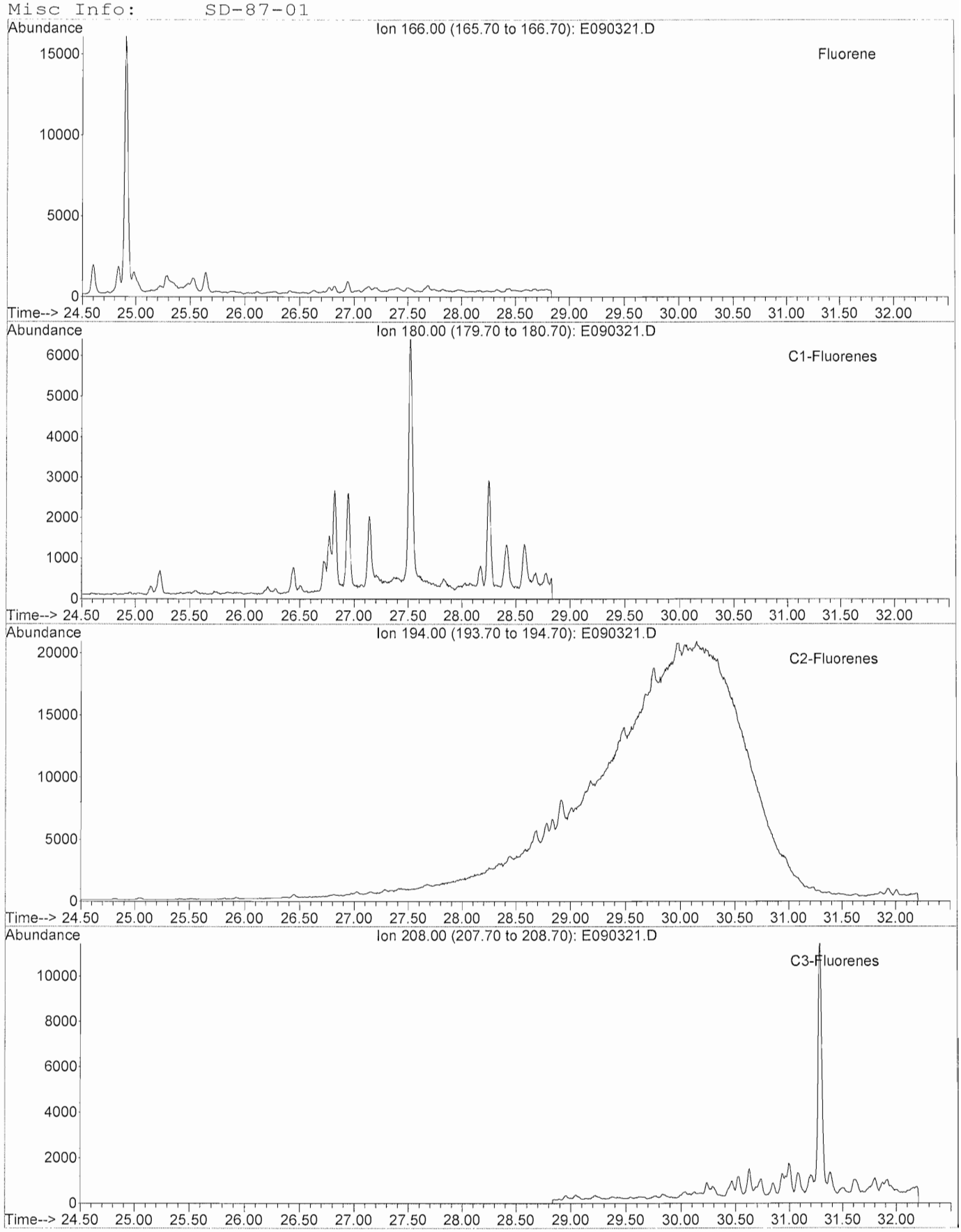

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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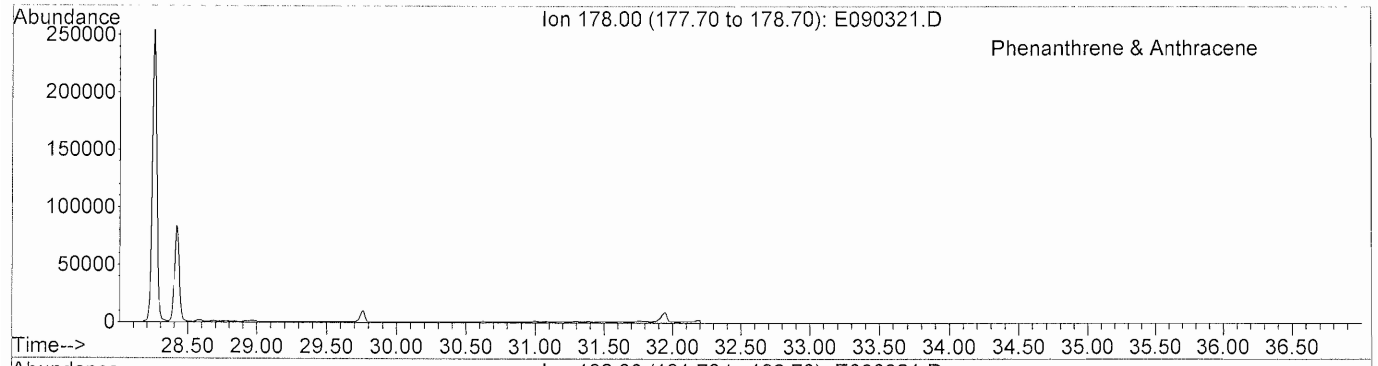

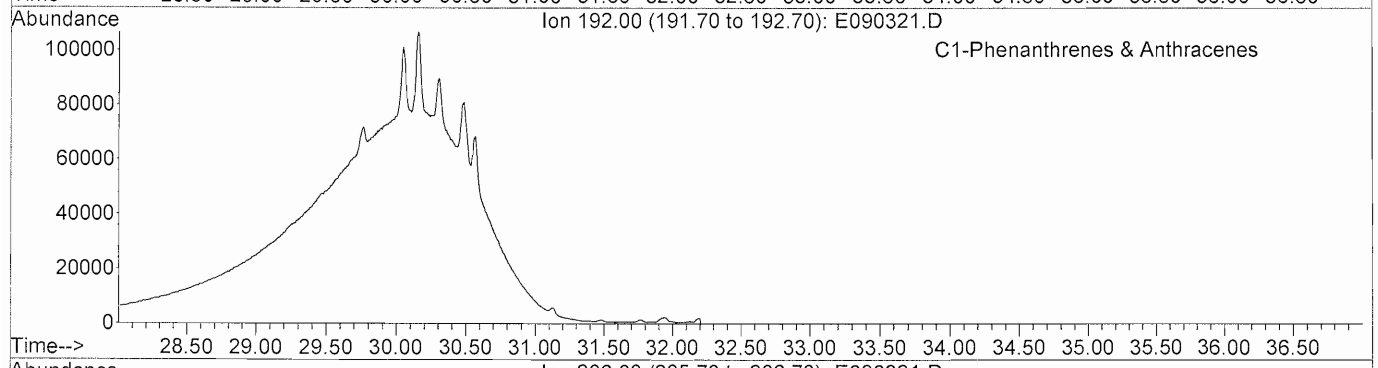

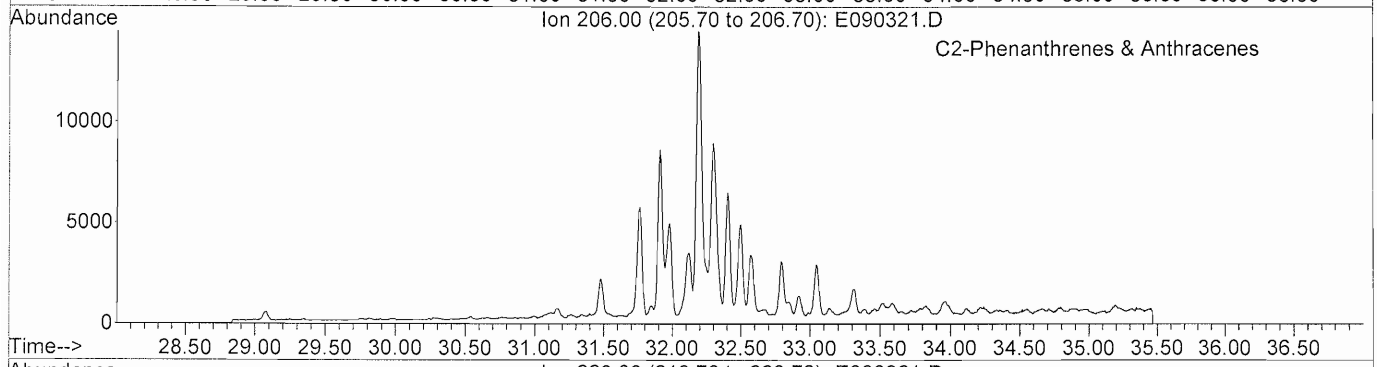

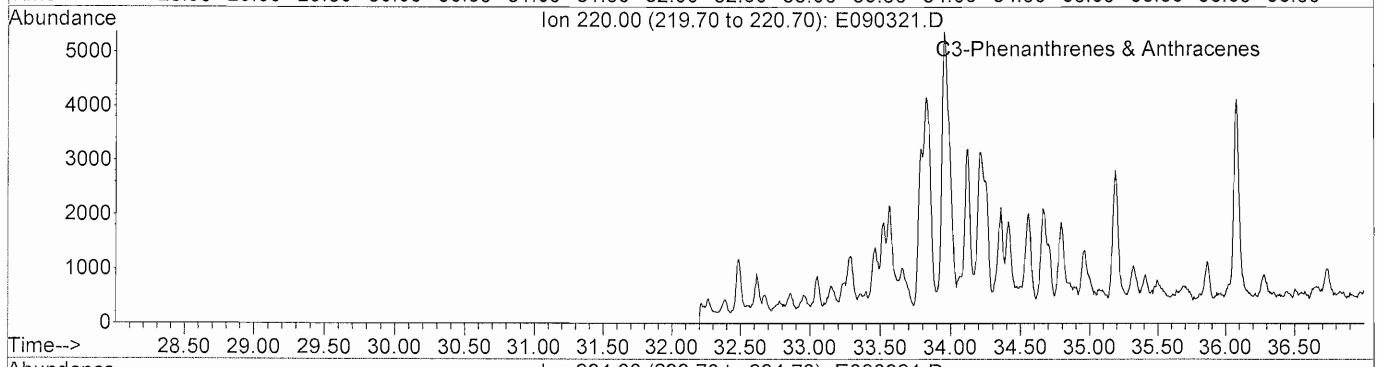

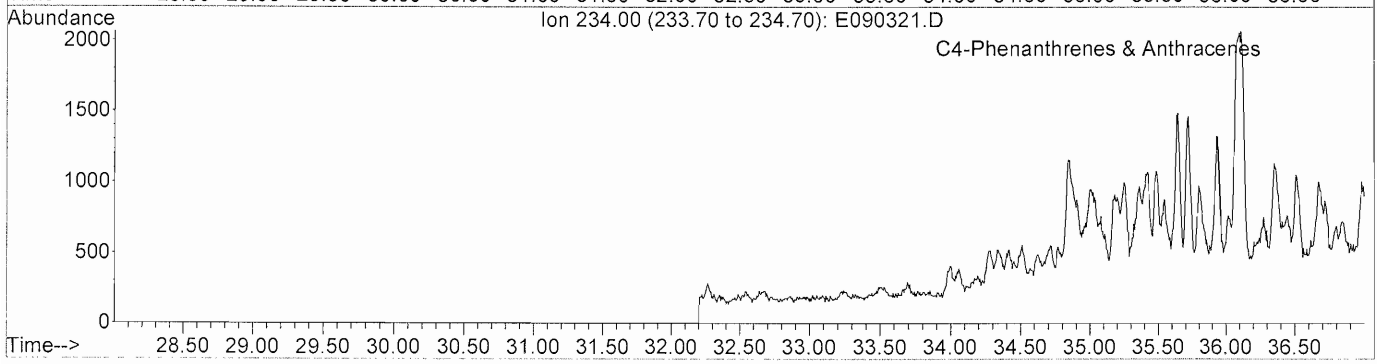

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Sample Name: TT100819-11
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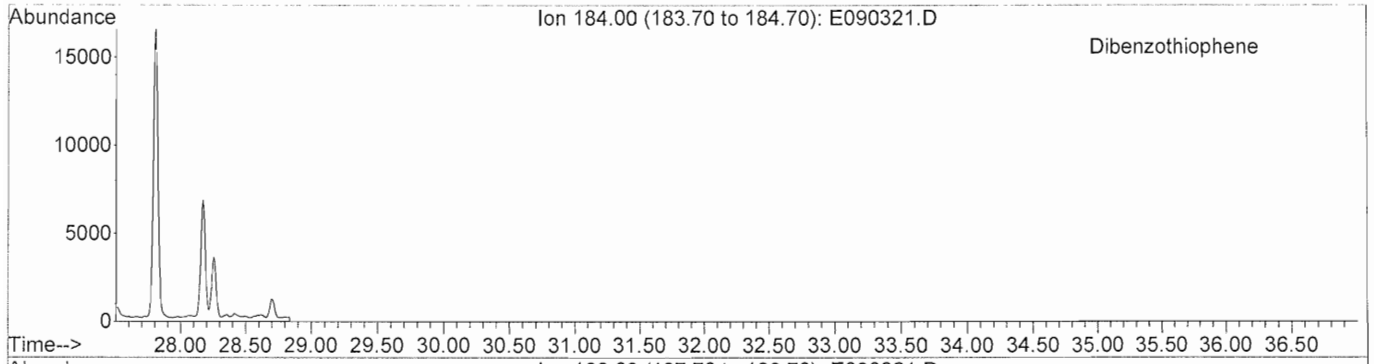

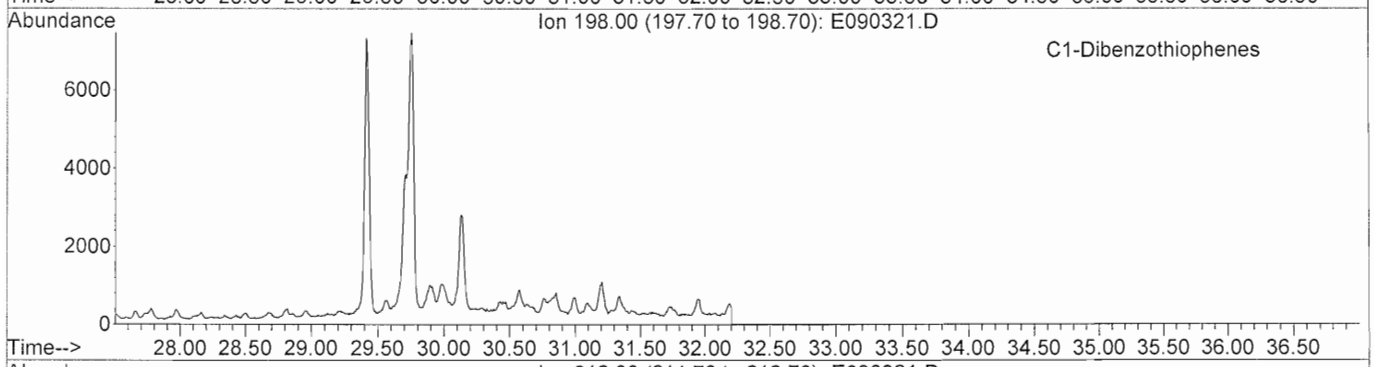

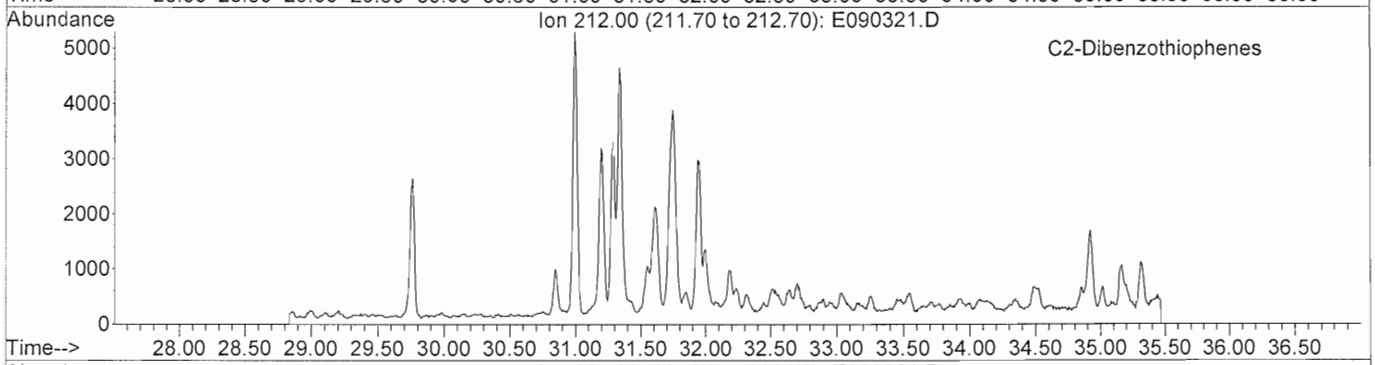

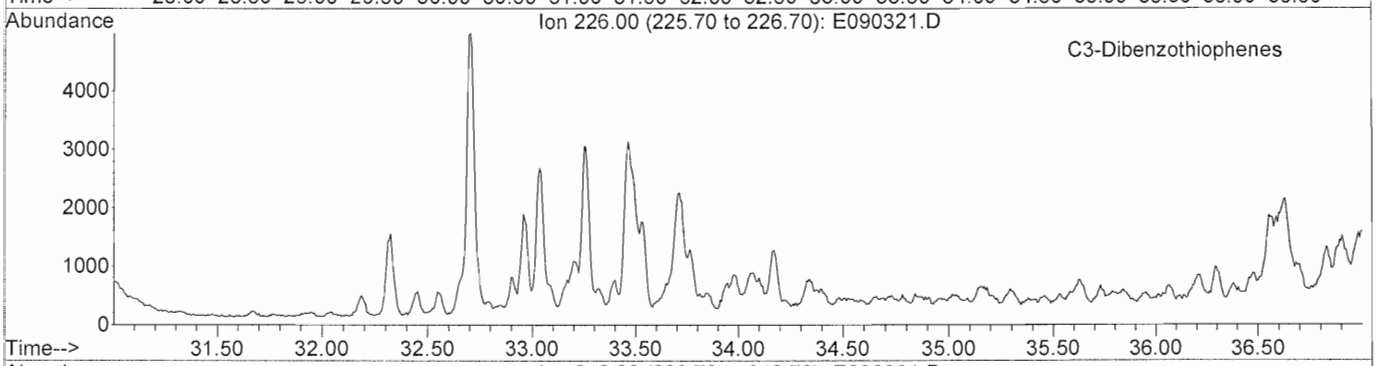

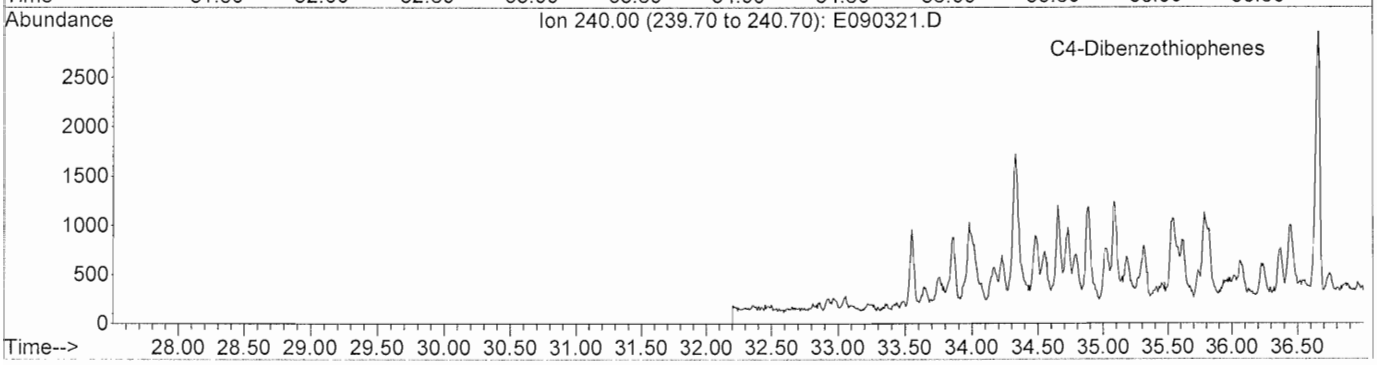

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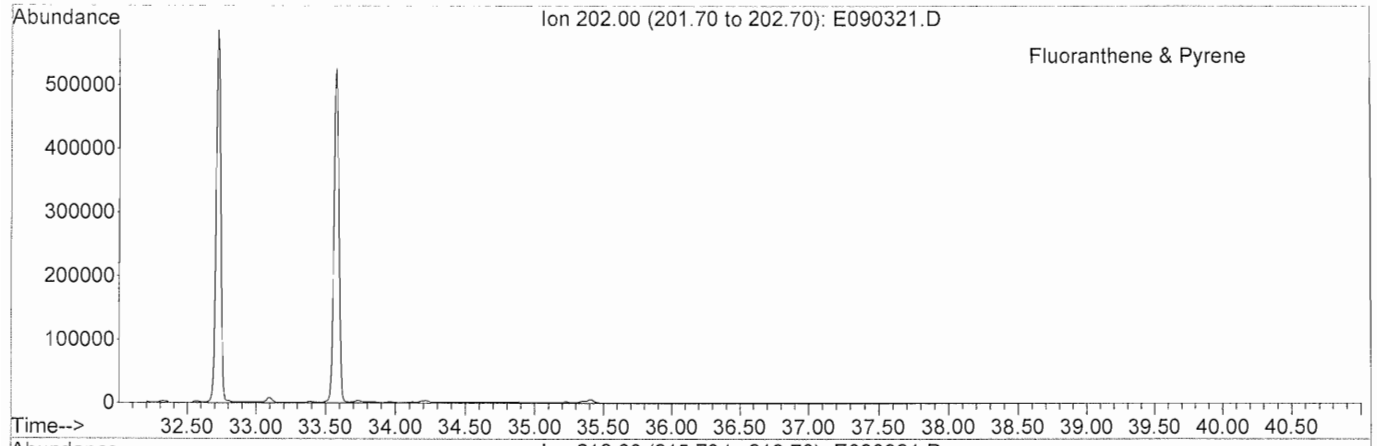
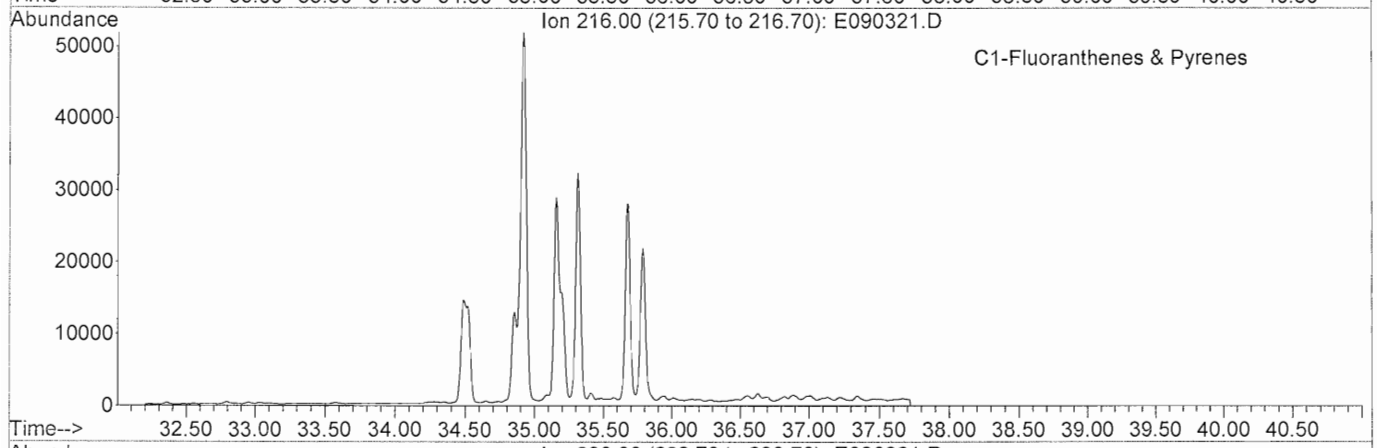
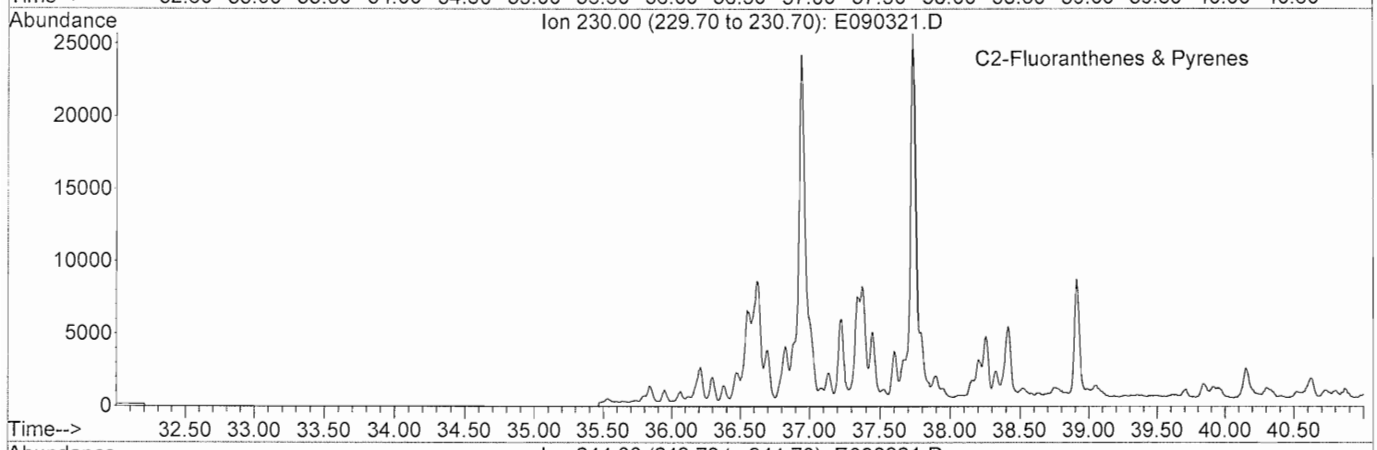
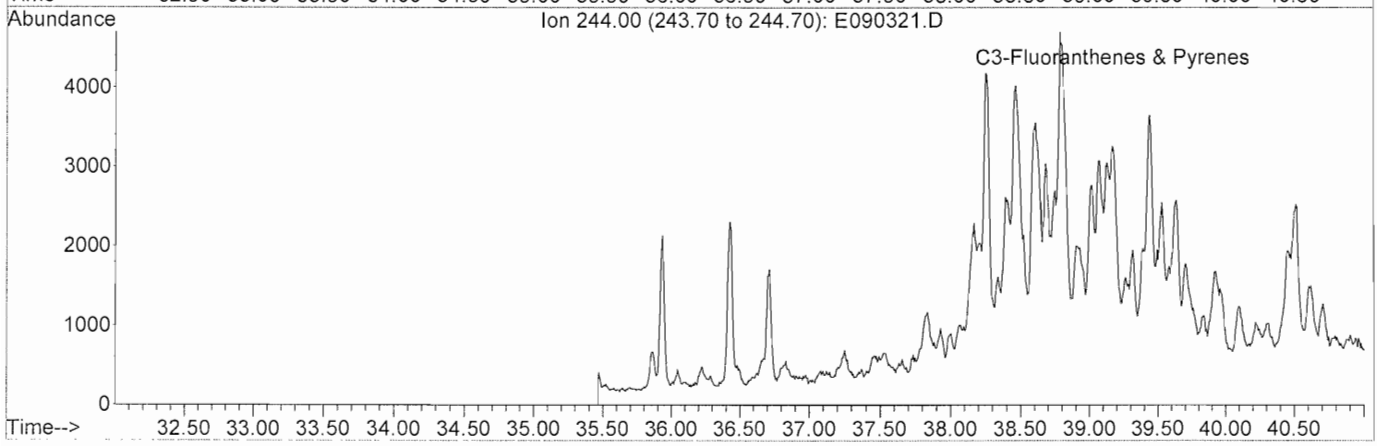




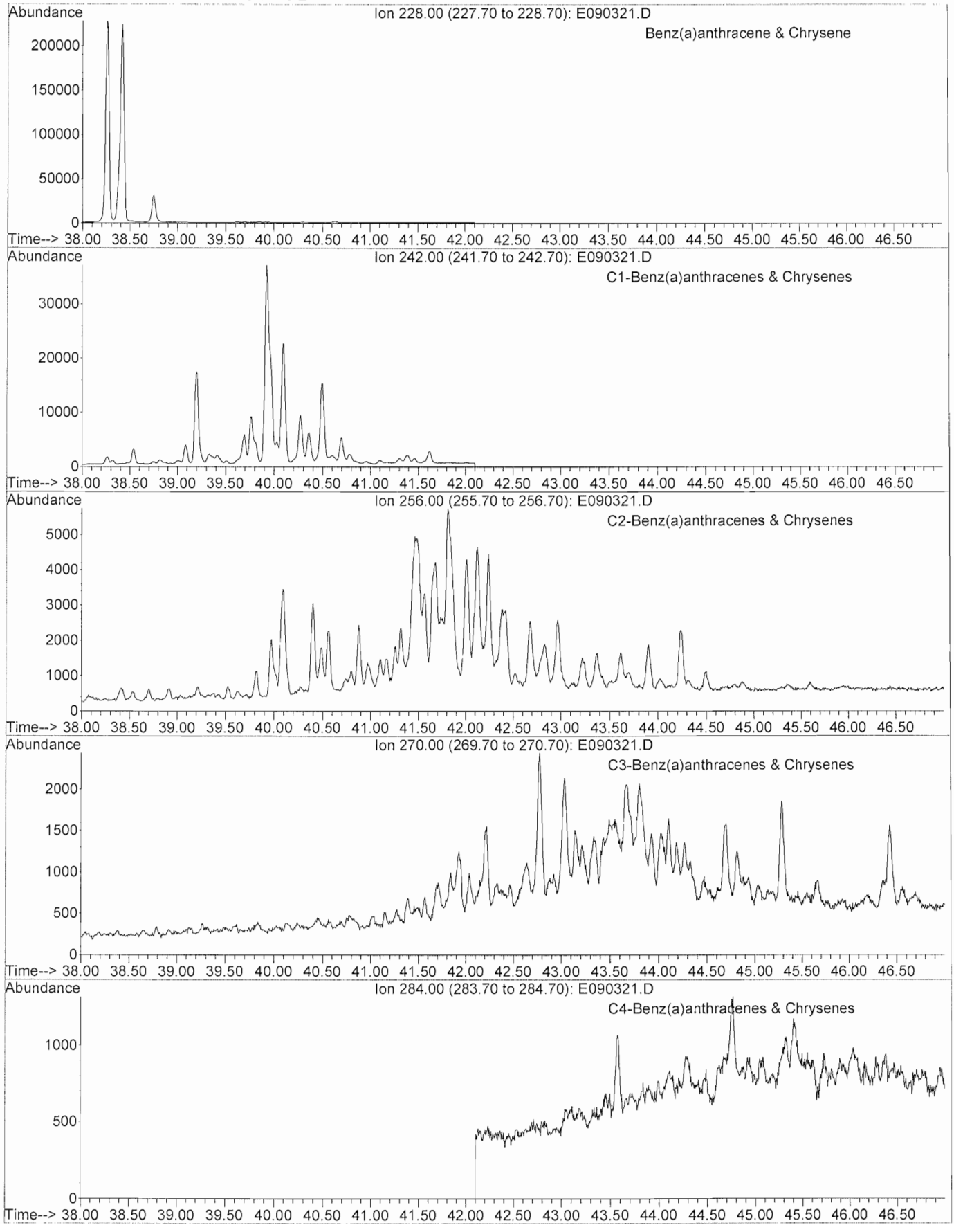




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

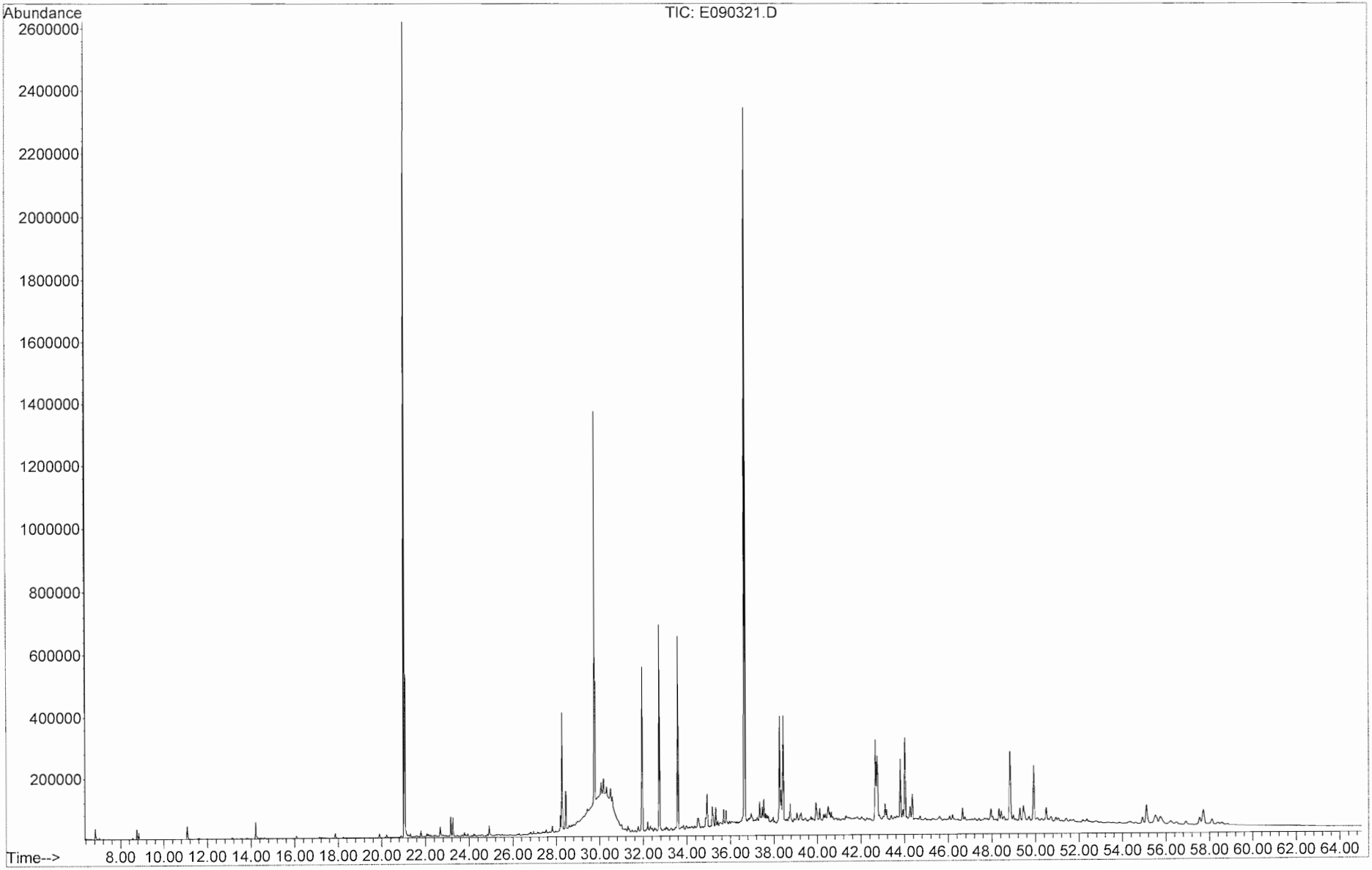
File: J:\1\DATA\E100903\E090321.D
Date Acquired: 4 Sep 2010 4:26 pm
Sample Name: TT100819-11
Misc Info: SD-87-01



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

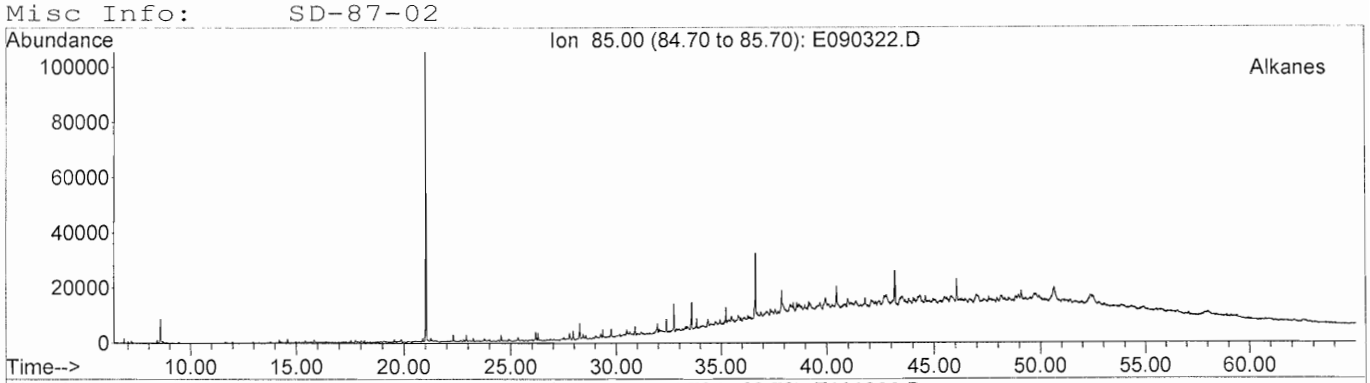
File: J:\1\DATA\E100903\E090321.D
Date Acquired: 4 Sep 2010 4:26 pm
Sample Name: TT100819-11
Misc Info: SD-87-01

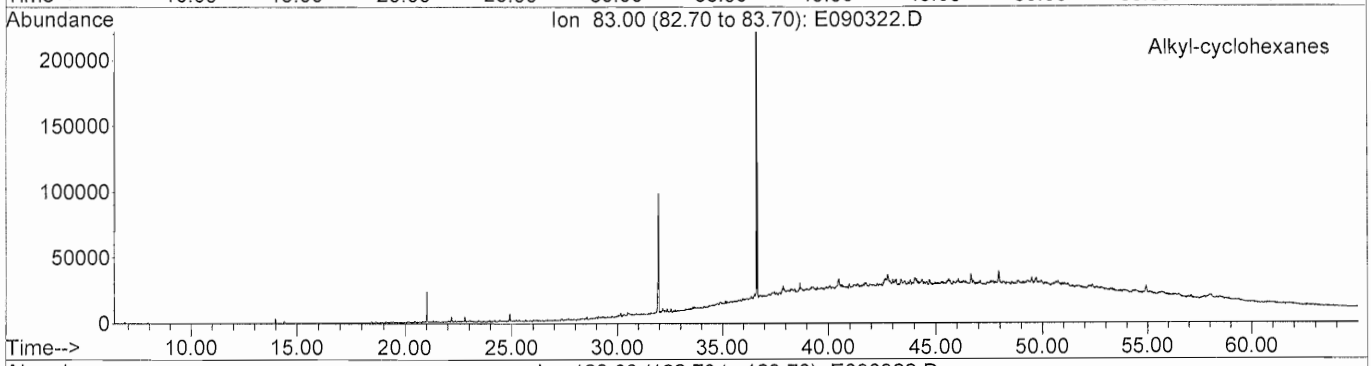


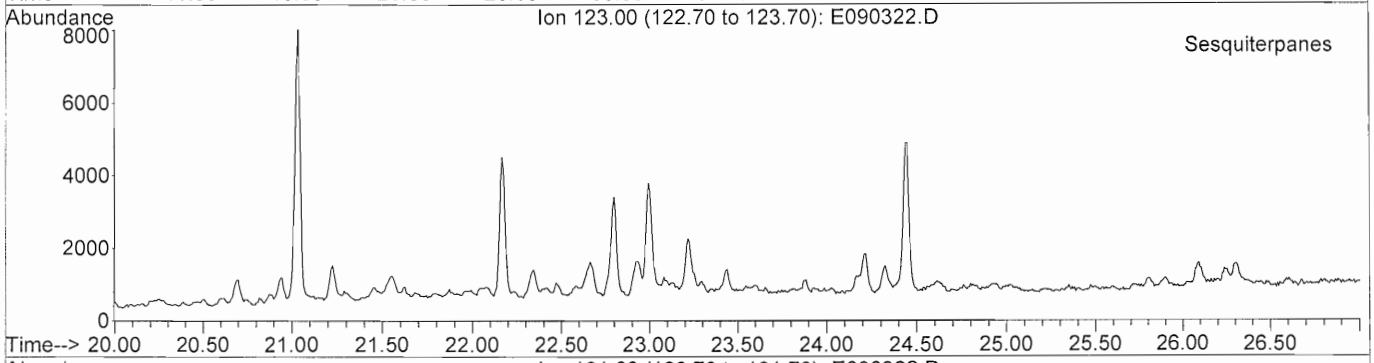
META Environmental, Inc.

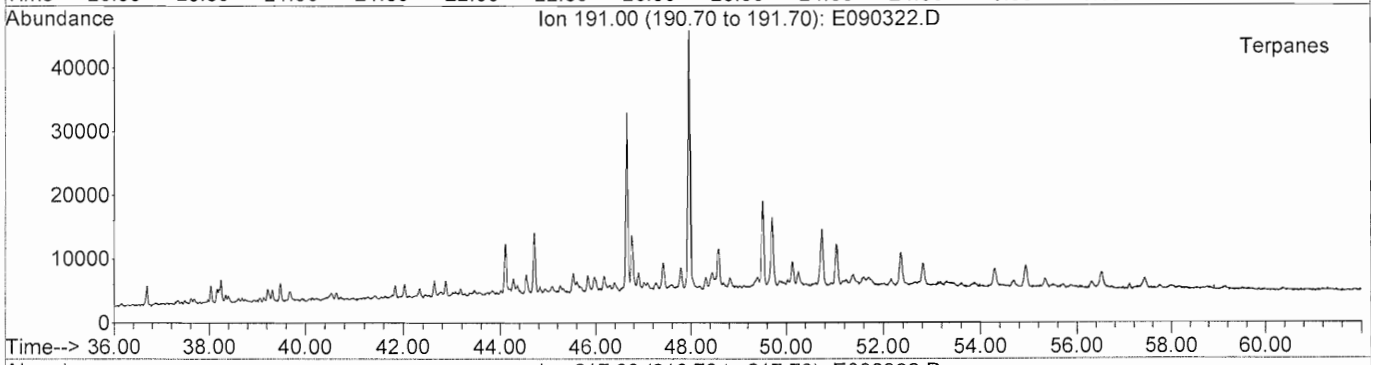
GC/MS EXTRACTED ION CHROMATOGRAM

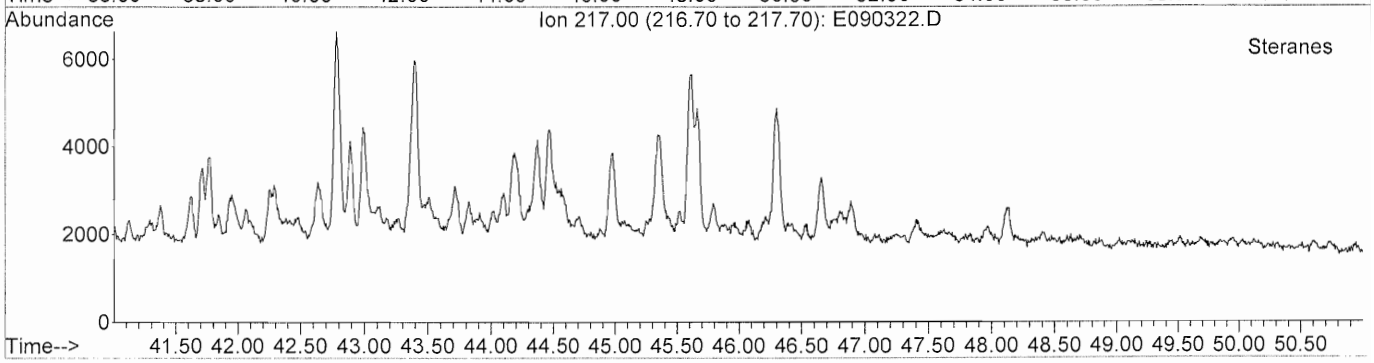
File: J:\1\DATA\E100903\E090322.D
Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
Misc Info: SD-87-02







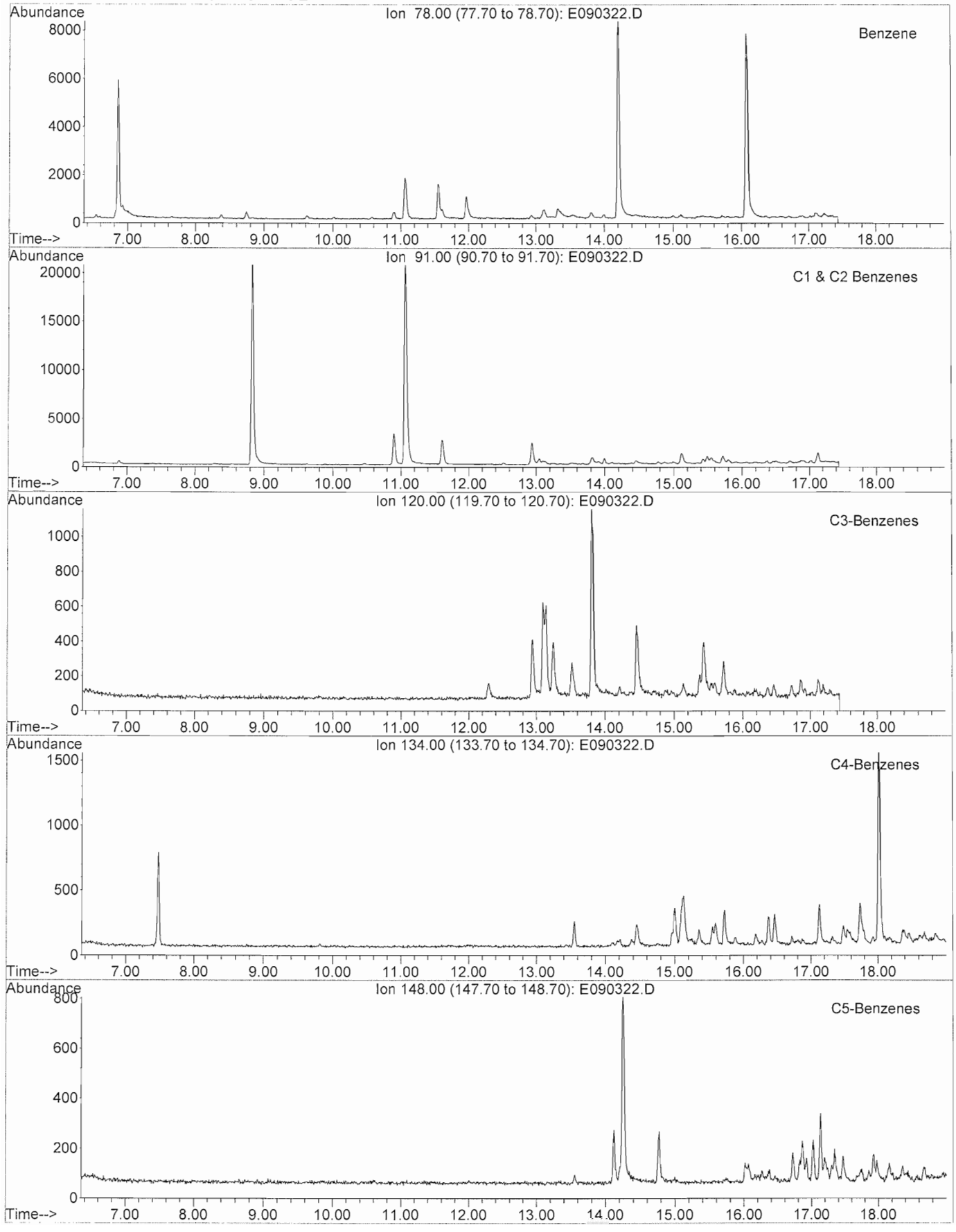




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

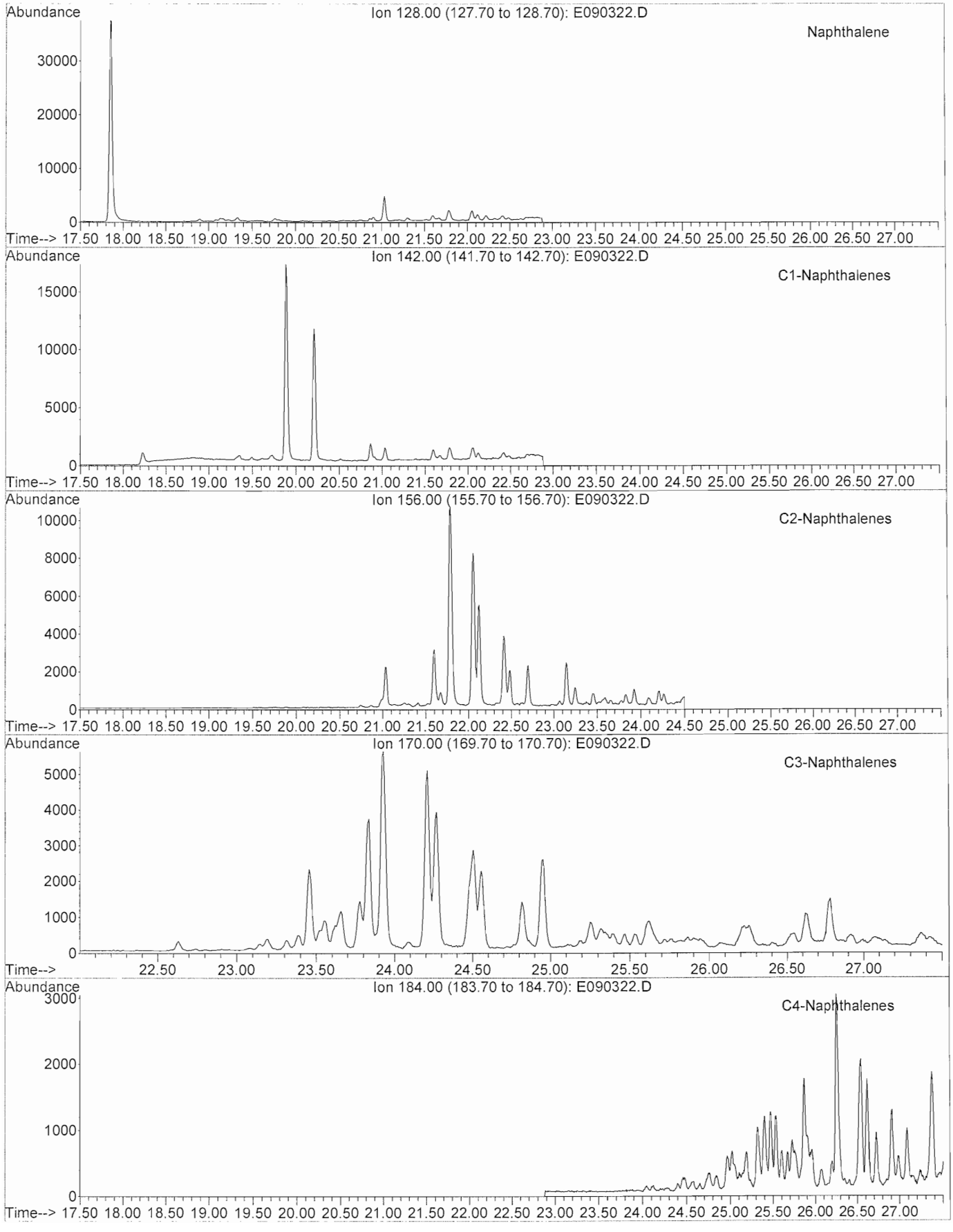
File: J:\1\DATA\E100903\E090322.D
Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
Misc Info: SD-87-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090322.D
Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
Misc Info: SD-87-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
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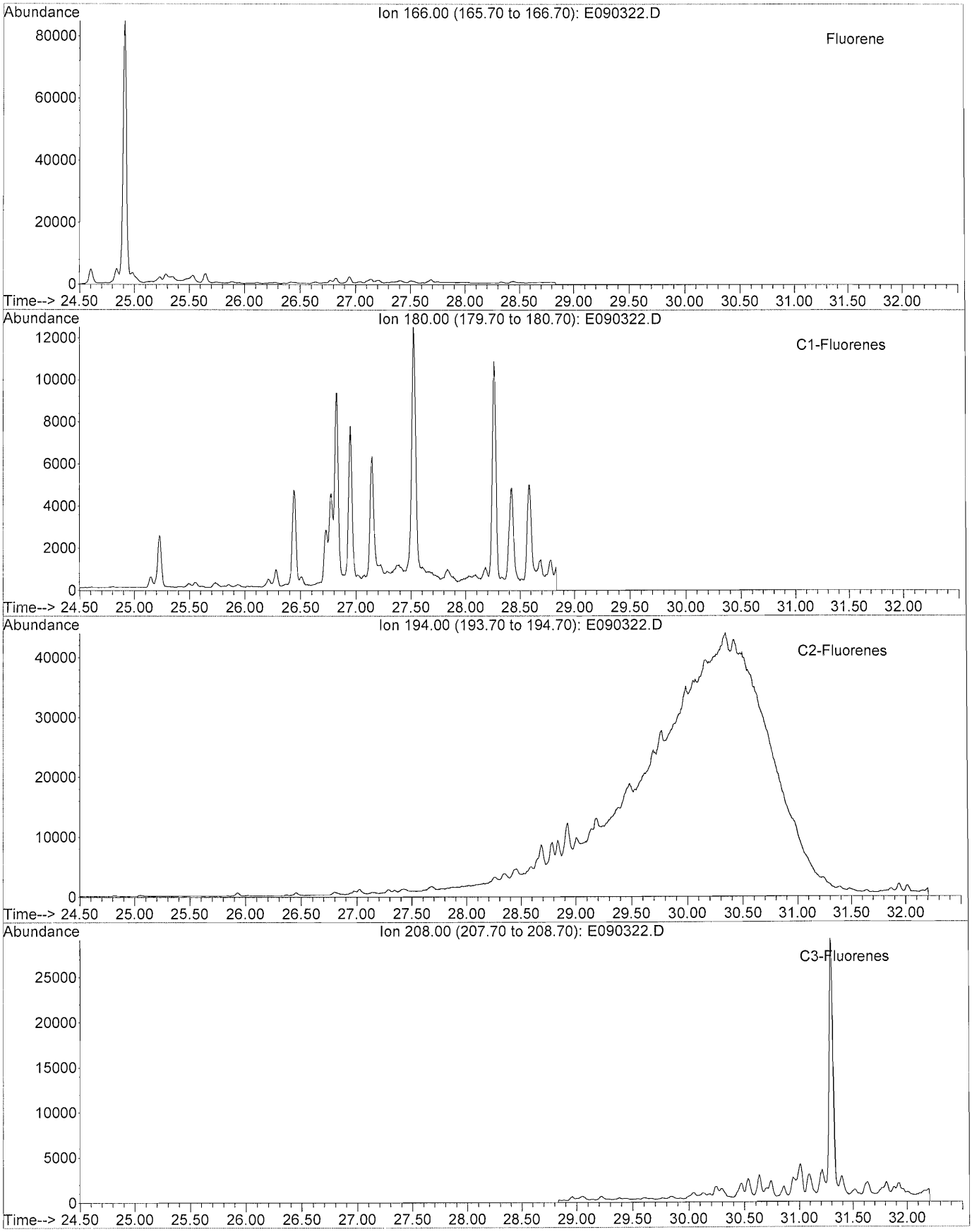

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090322.D
Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
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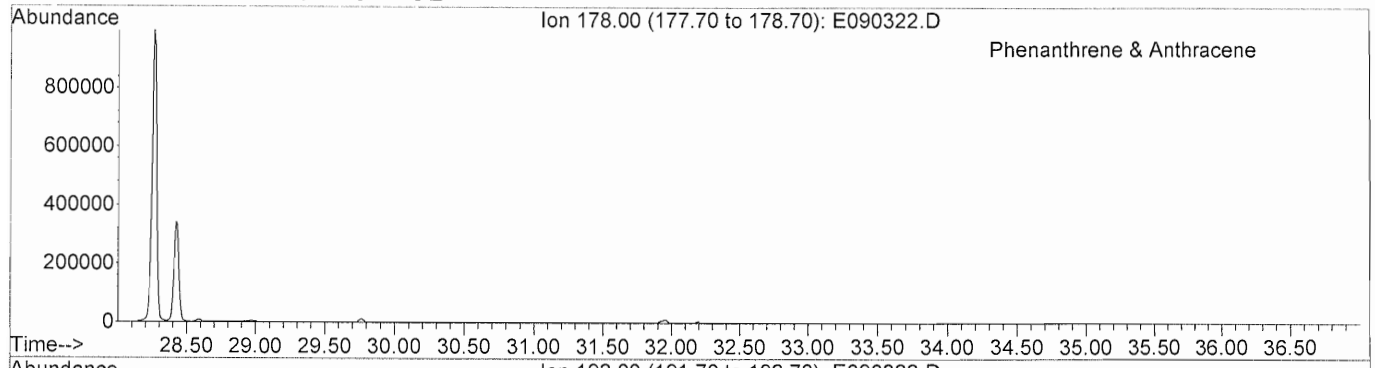

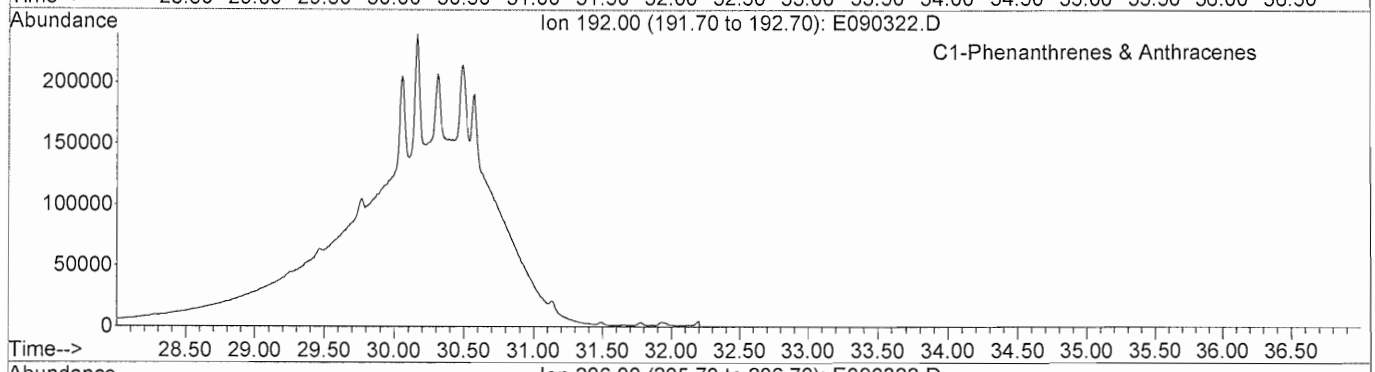

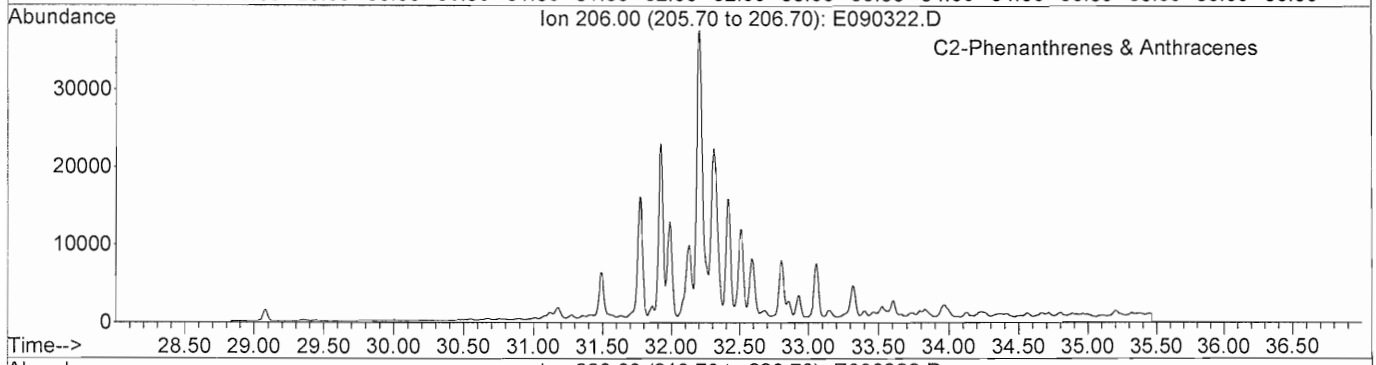

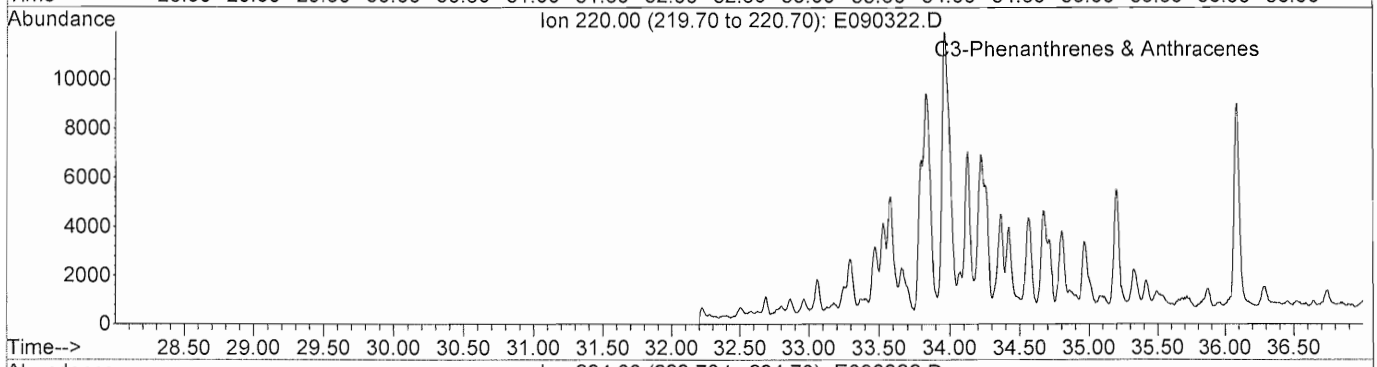

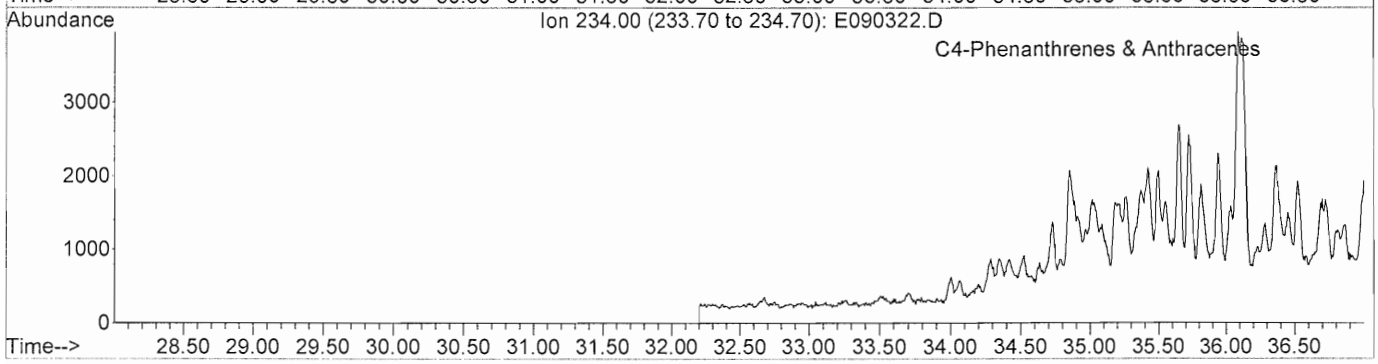

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Sample Name: TT100819-12
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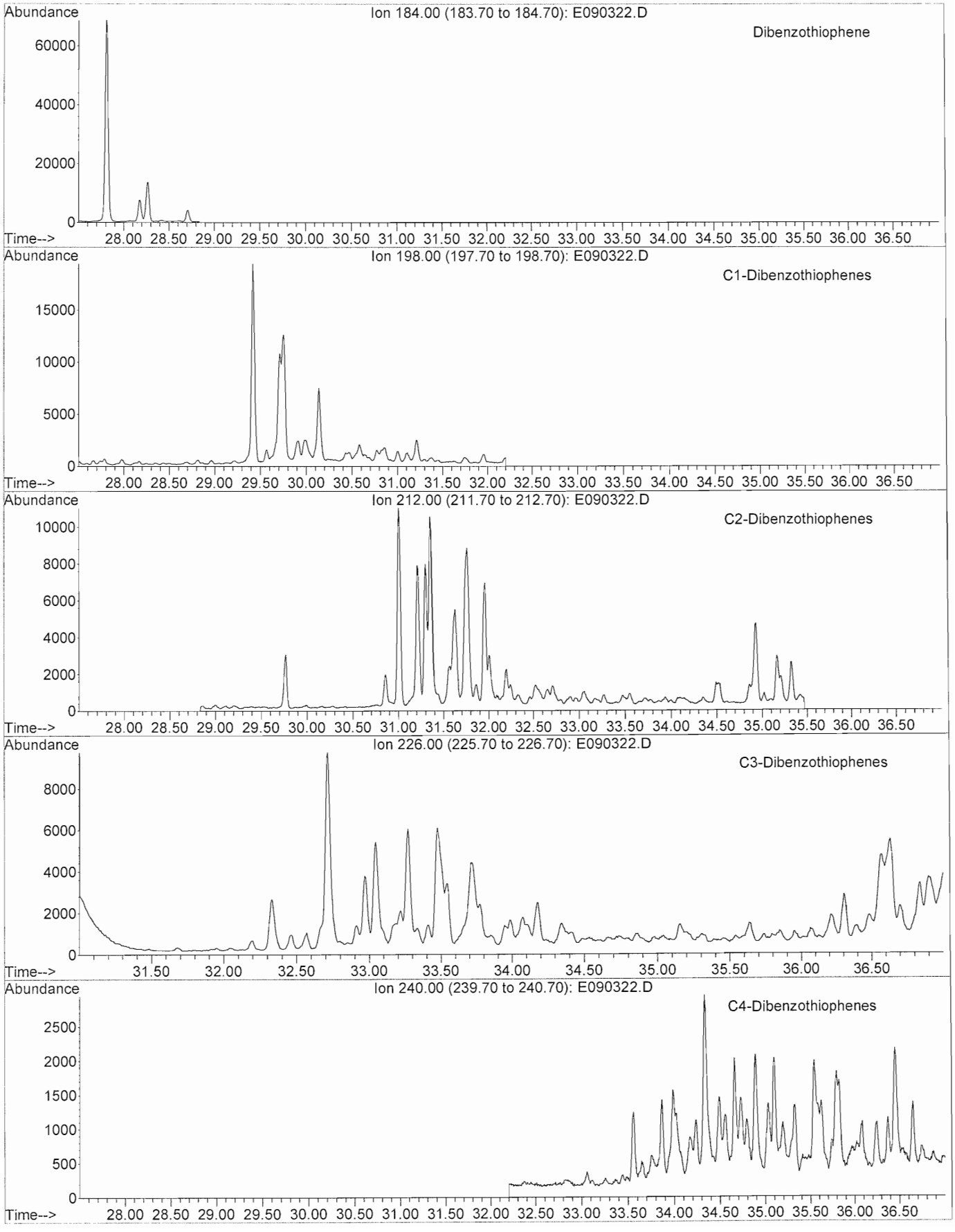

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090322.D
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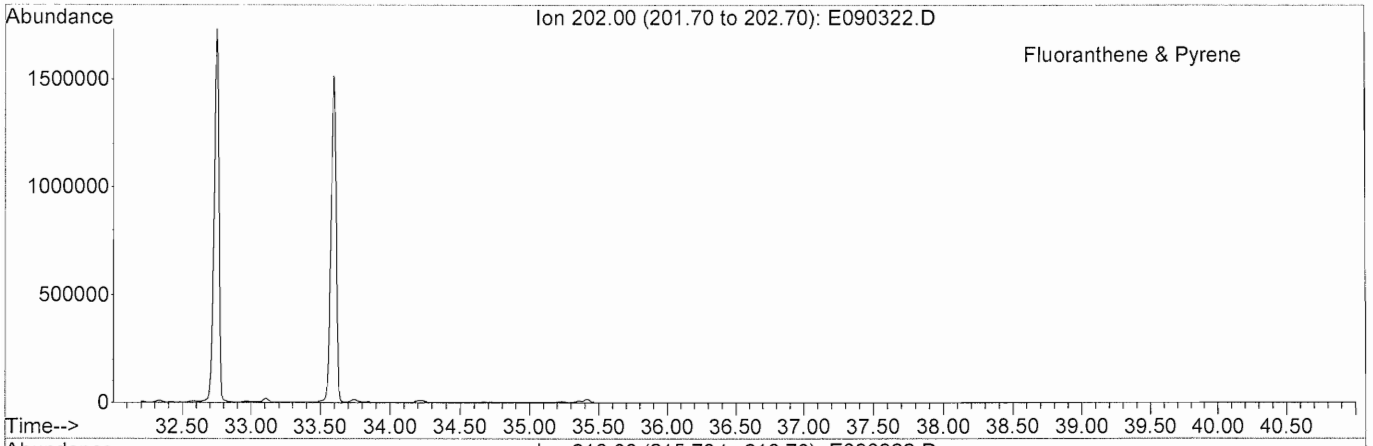
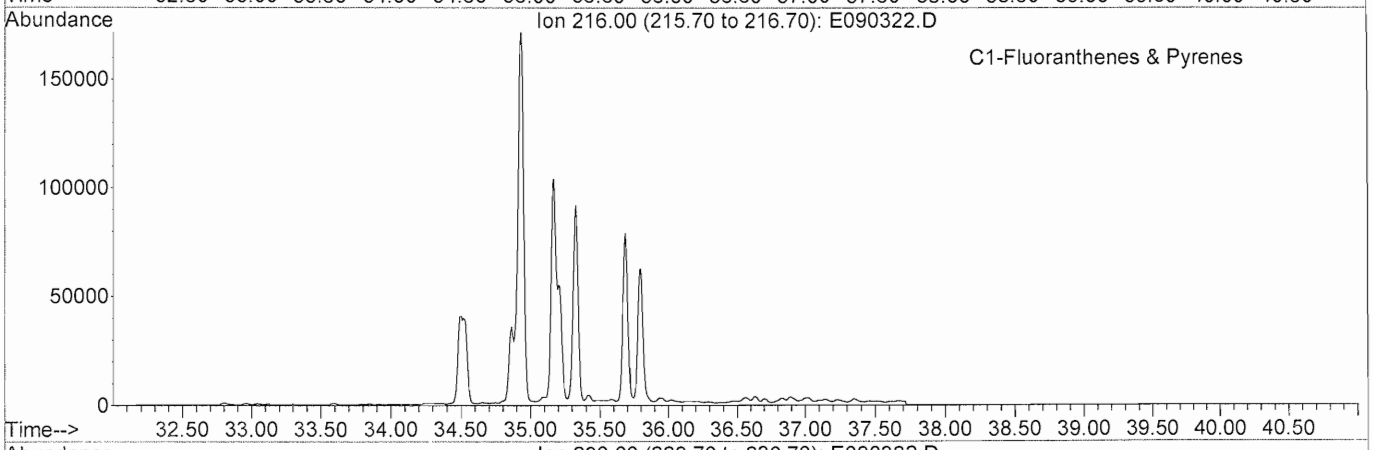
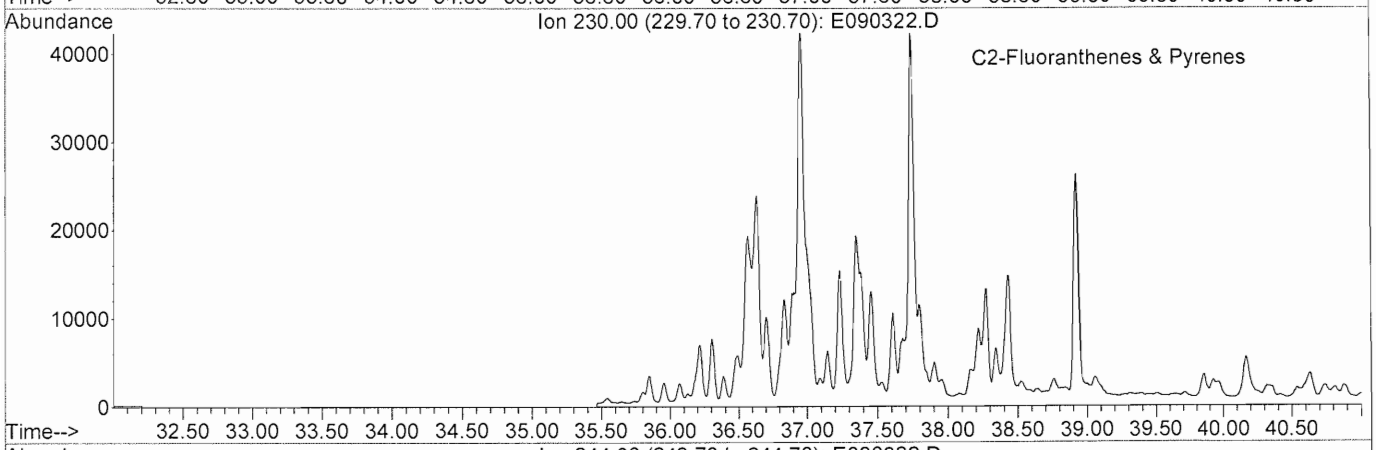
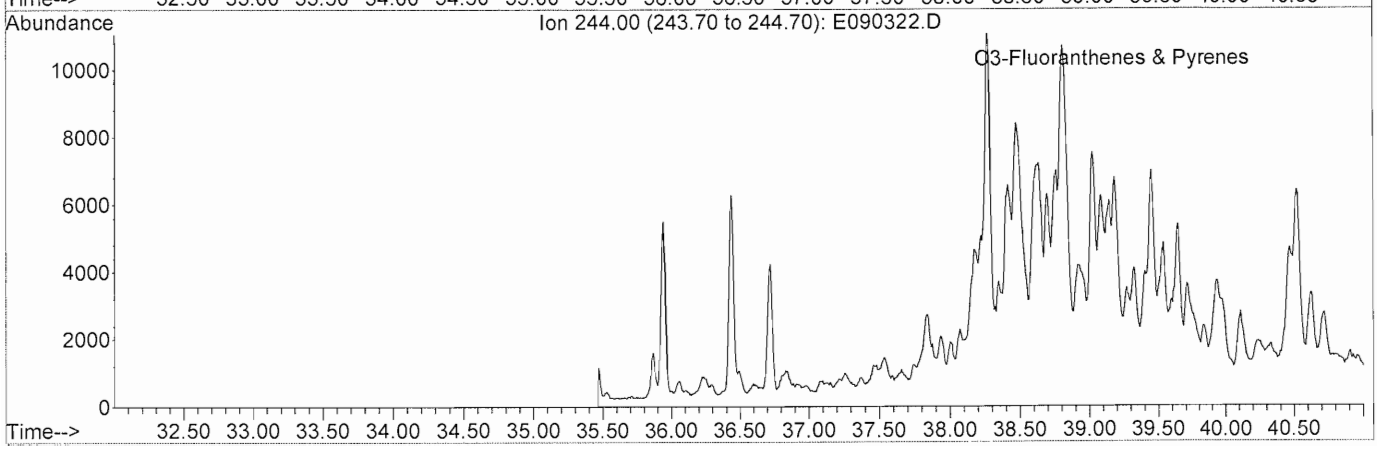
Sample Name: TT100819-12
Misc Info: SD-87-02









META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 5:46 pm
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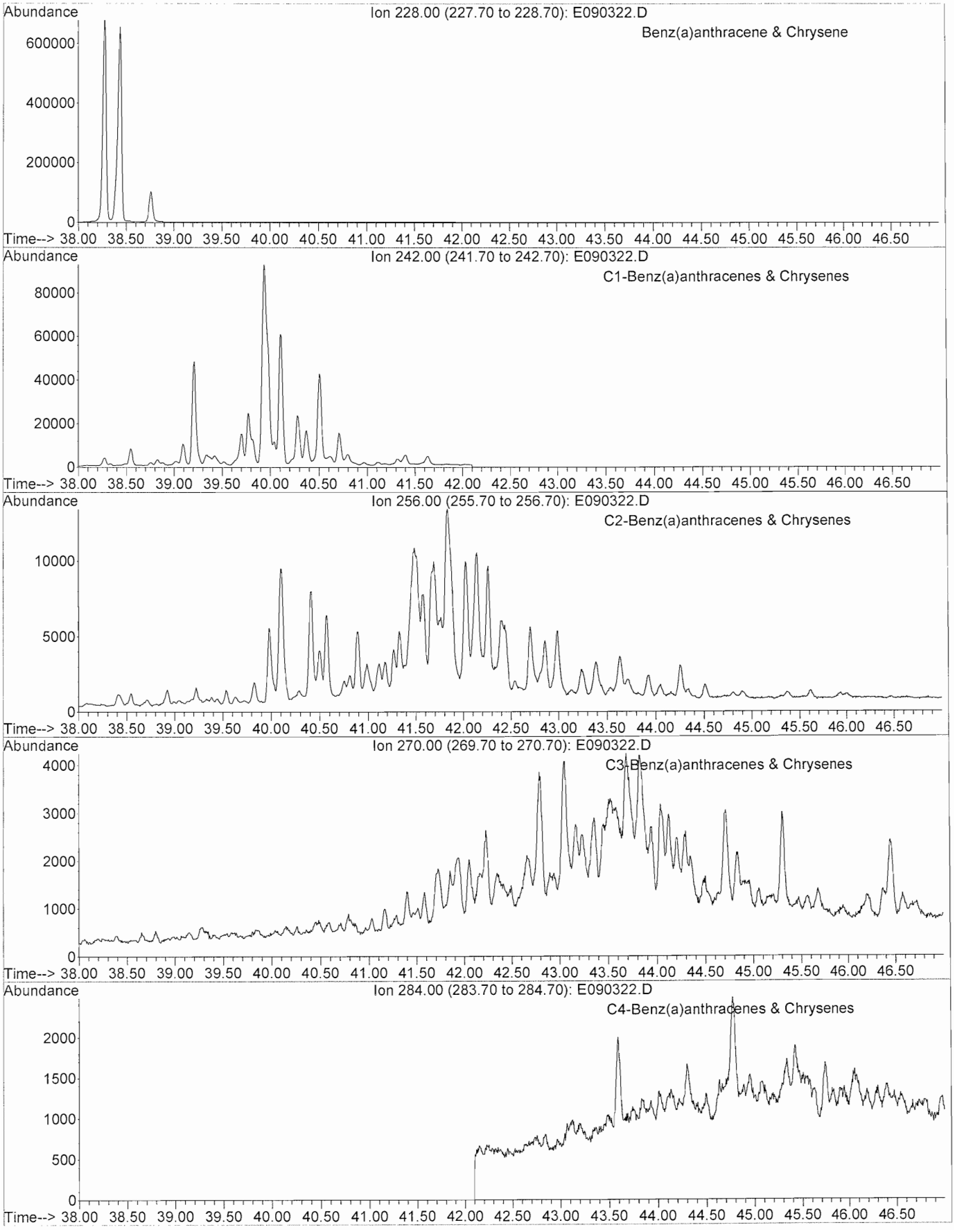
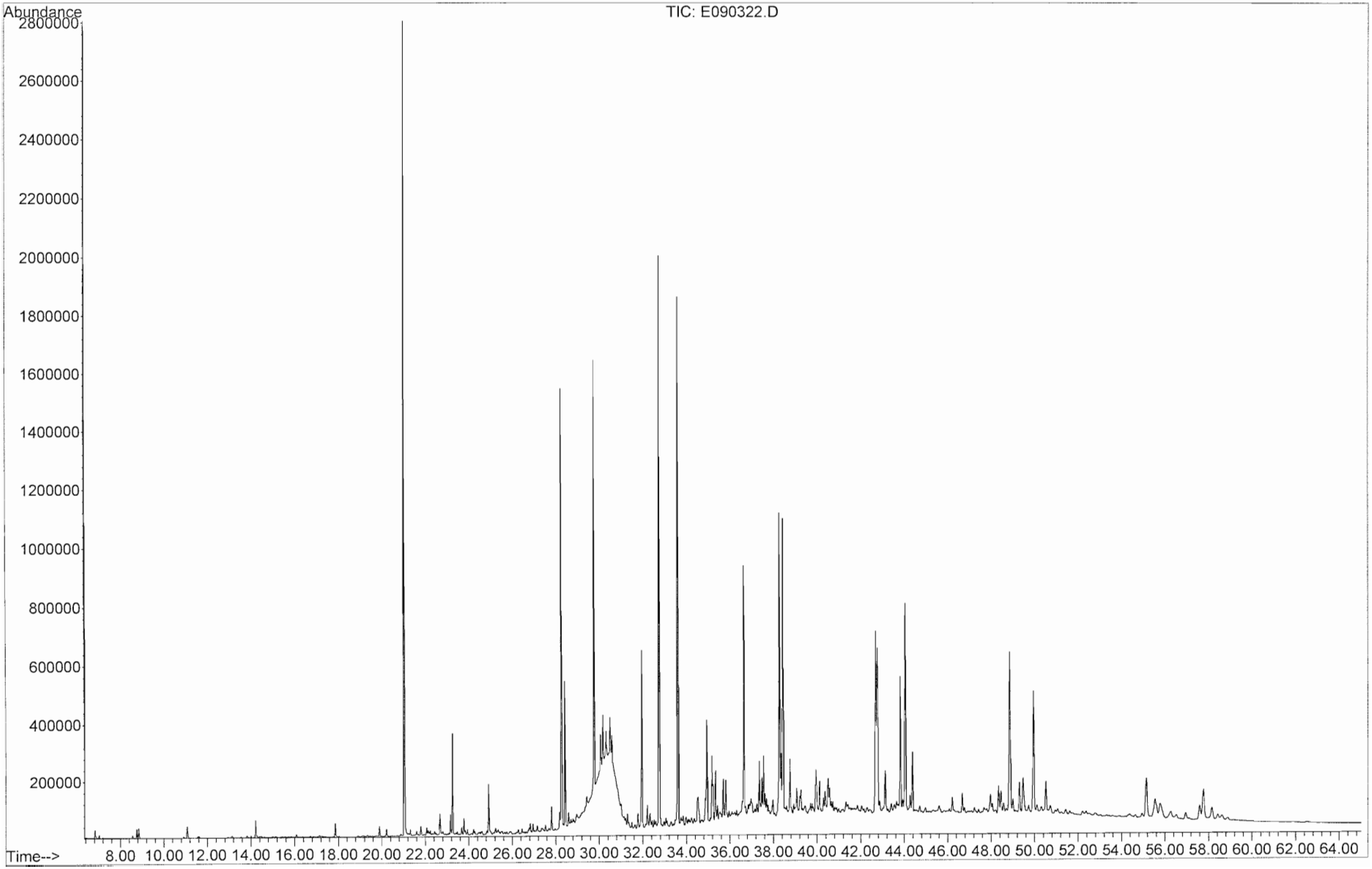


META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

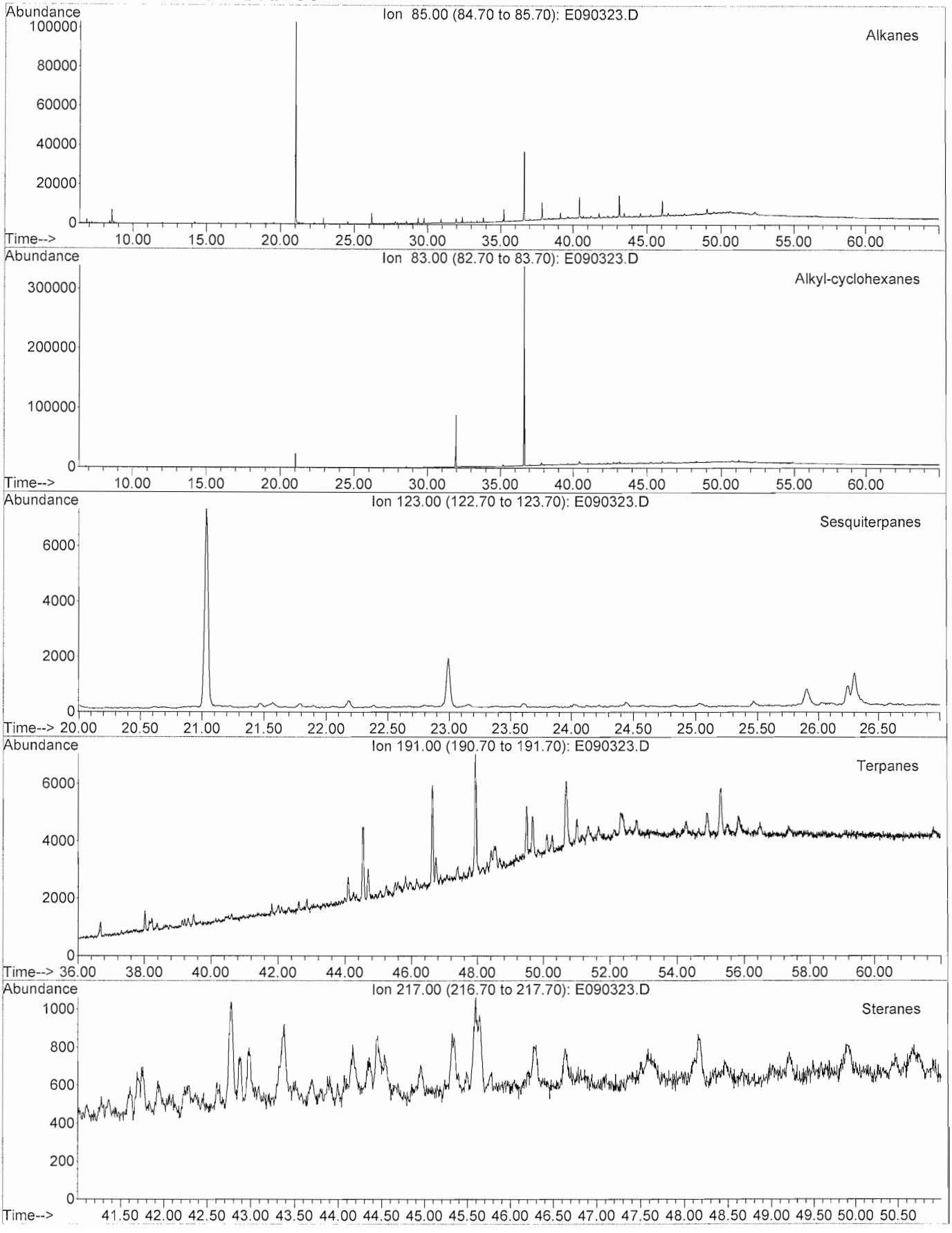
File: J:\1\DATA\E100903\E090322.D
Date Acquired: 4 Sep 2010 5:46 pm
Sample Name: TT100819-12
Misc Info: SD-87-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

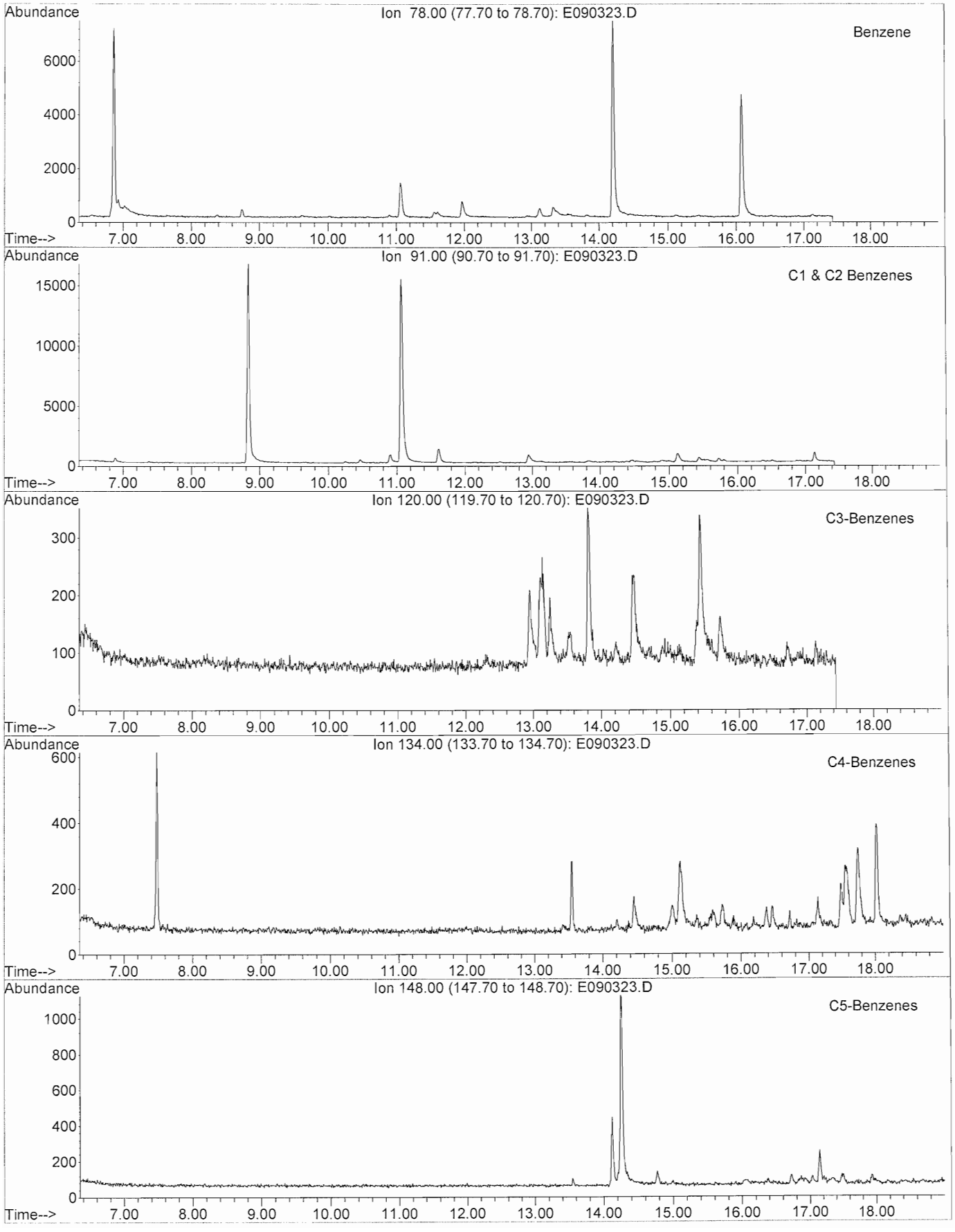
File: J:\1\DATA\E100903\E090323.D
Date Acquired: 4 Sep 2010 7:06 pm
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090323.D
Date Acquired: 4 Sep 2010 7:06 pm
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 7:06 pm
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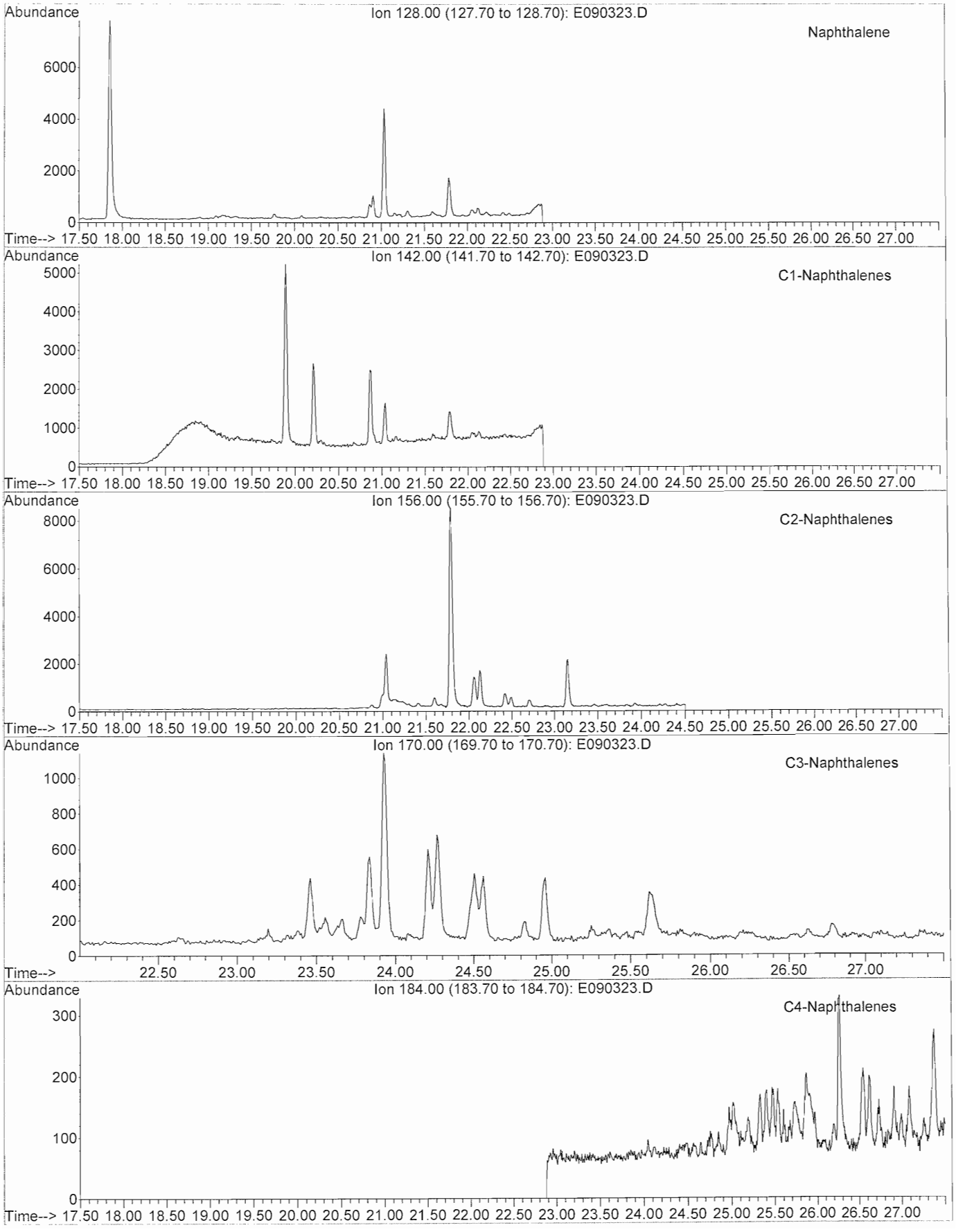
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090323.D
Date Acquired: 4 Sep 2010 7:06 pm
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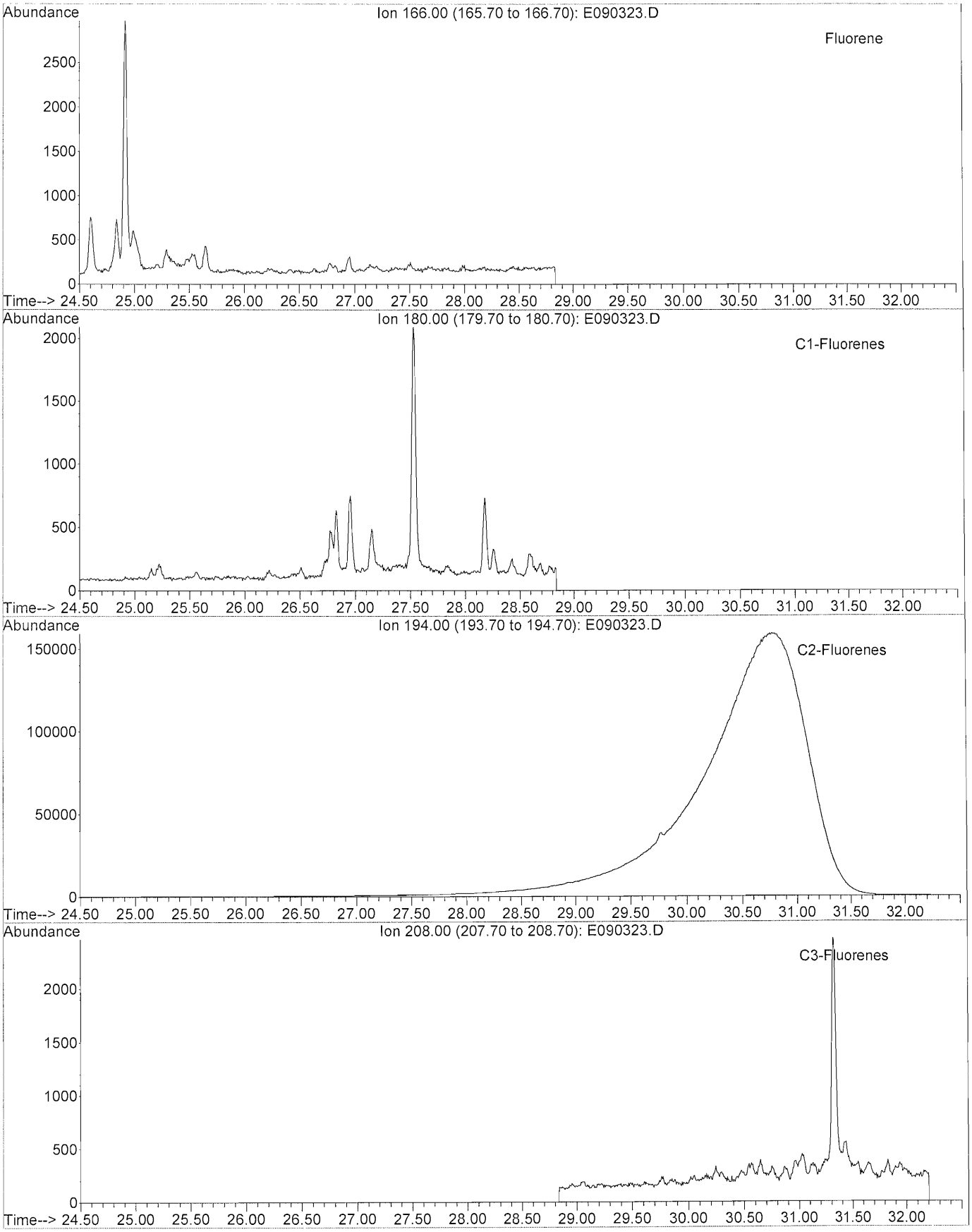

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090323.D
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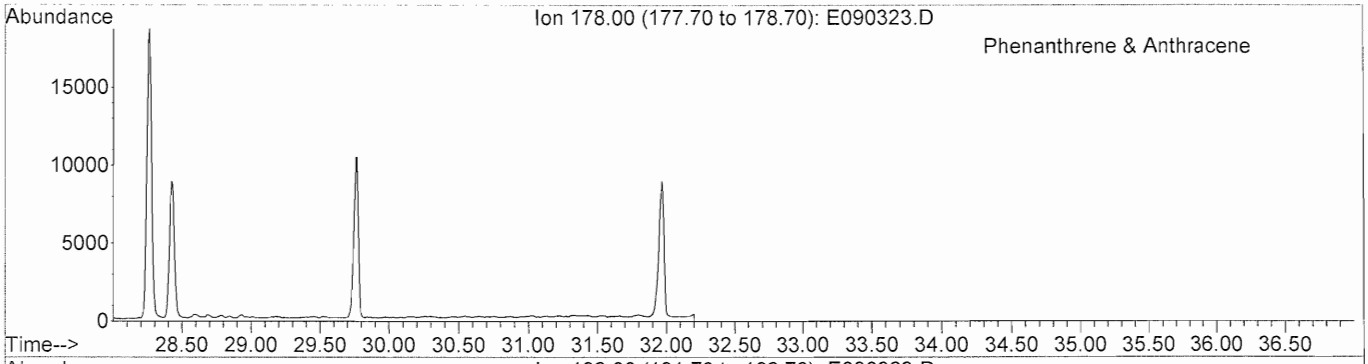

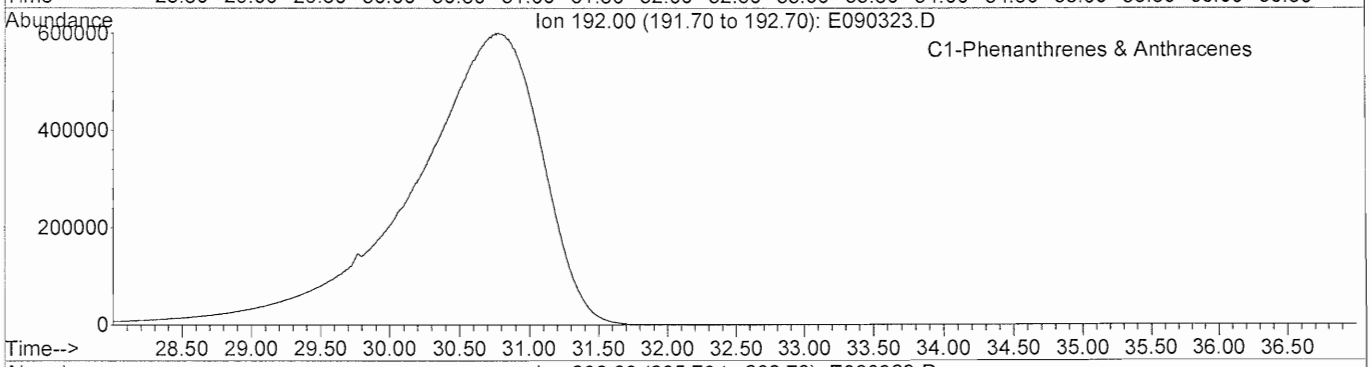

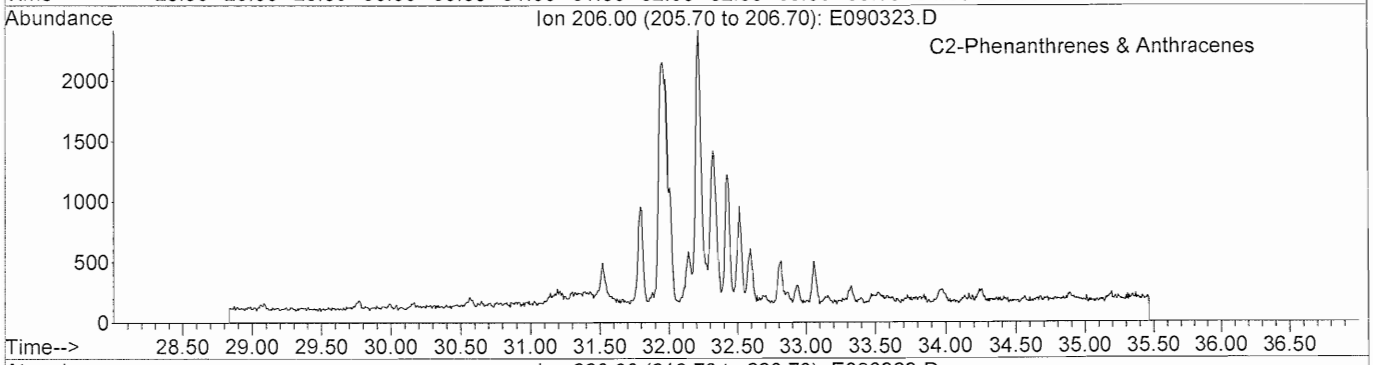

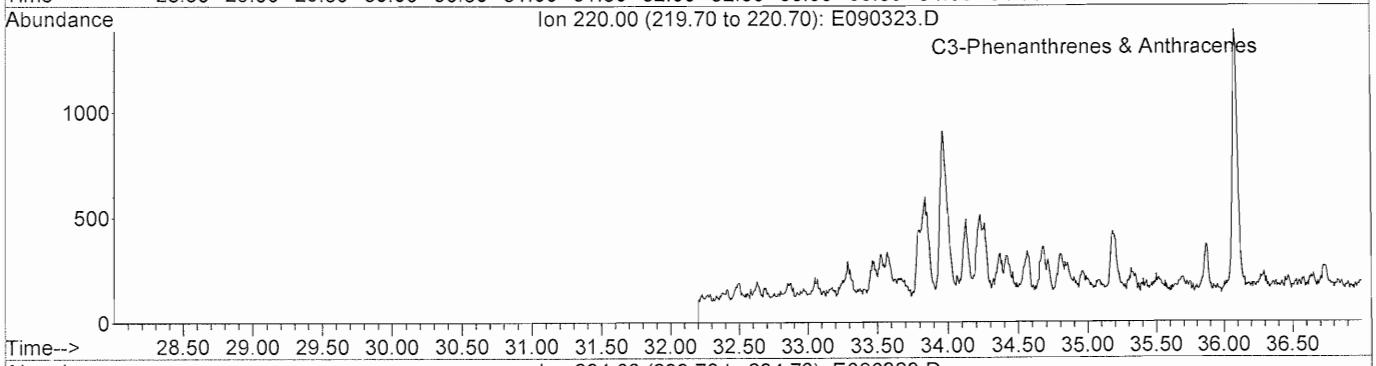

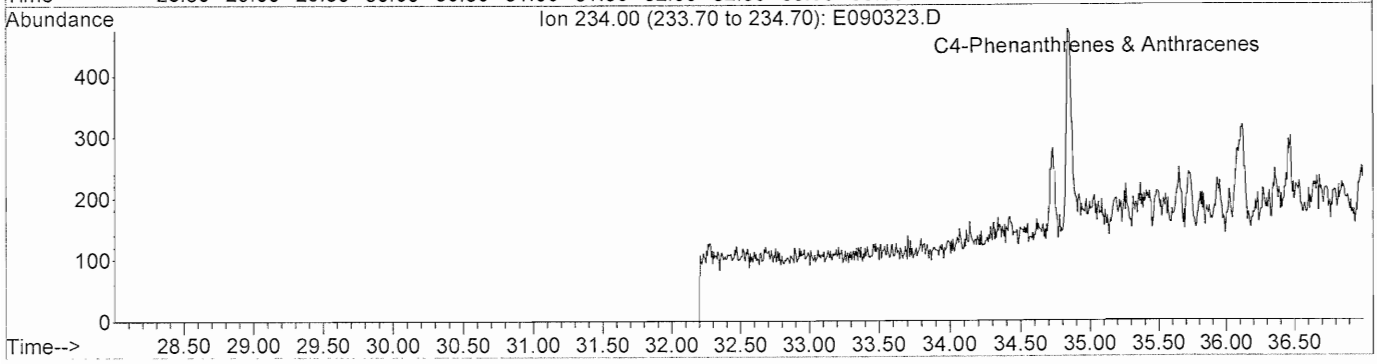

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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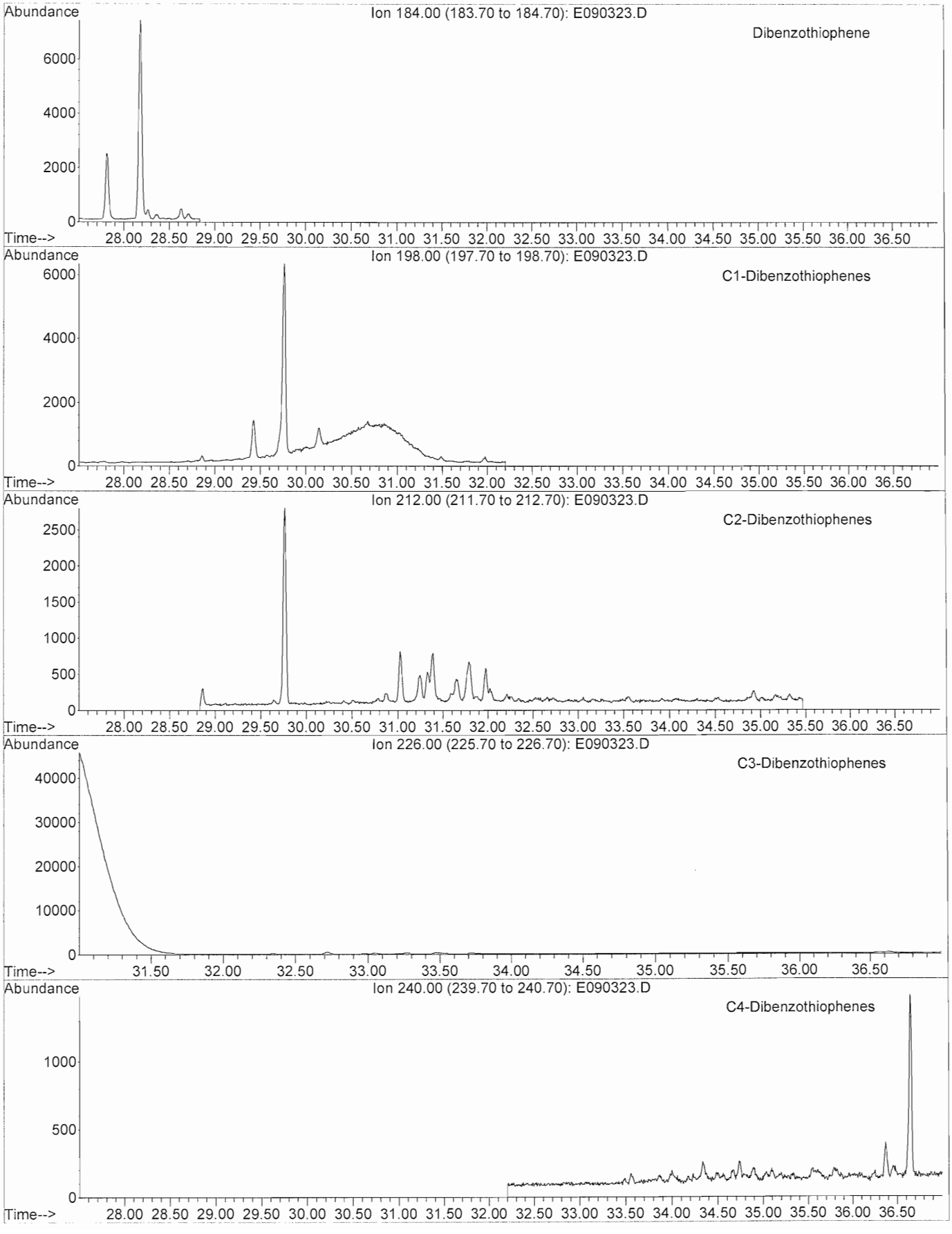
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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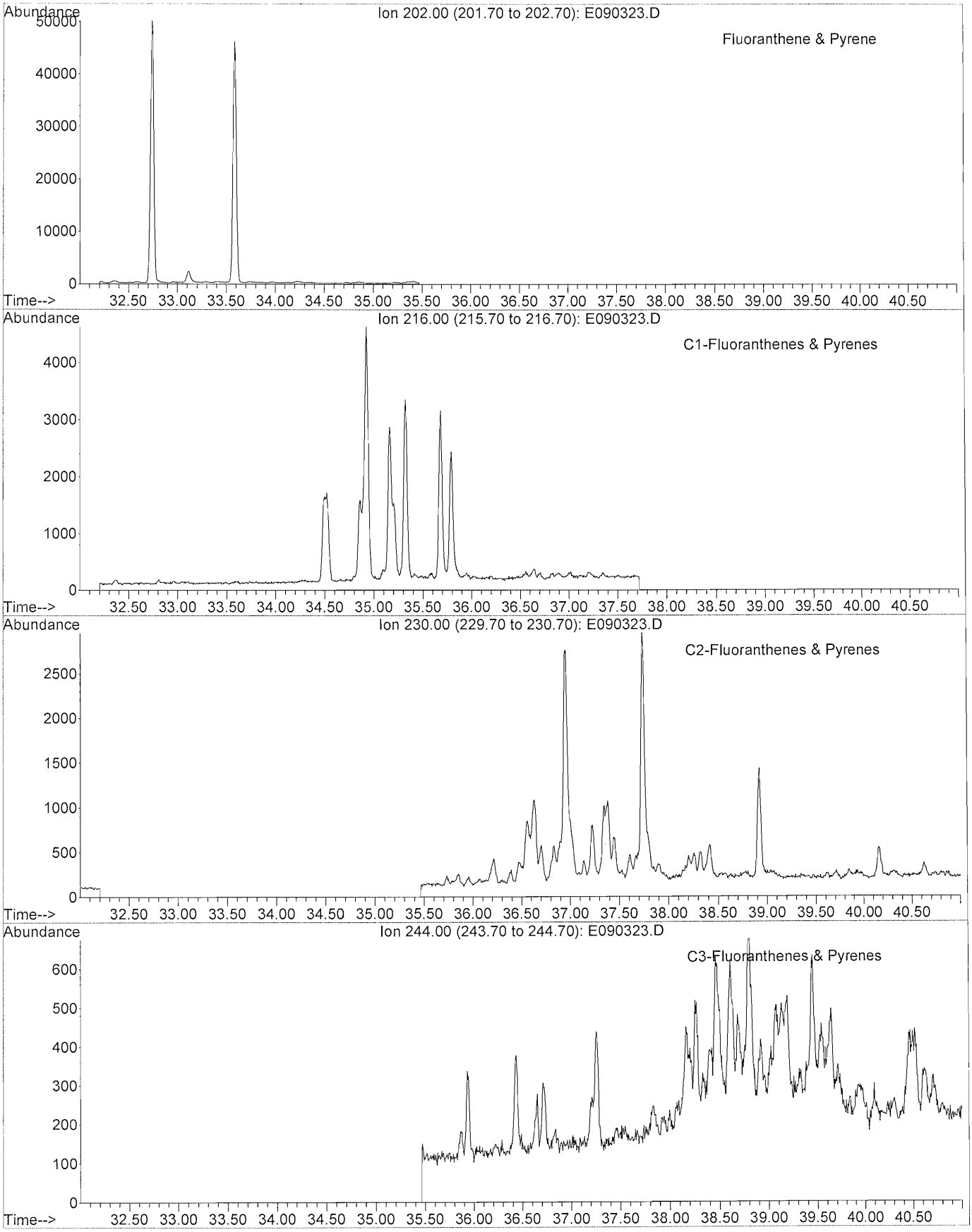
Date Acquired: 4 Sep 2010 7:06 pm
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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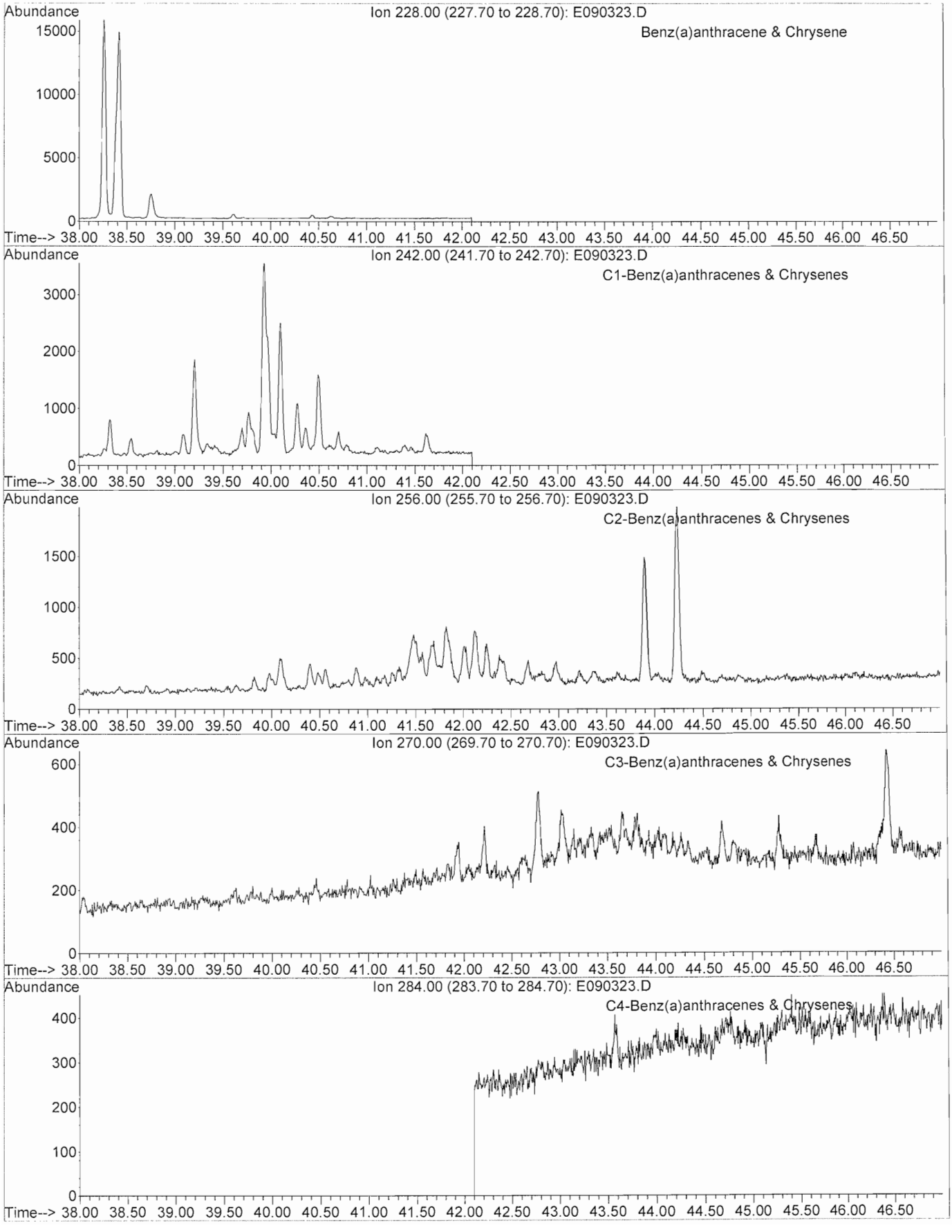
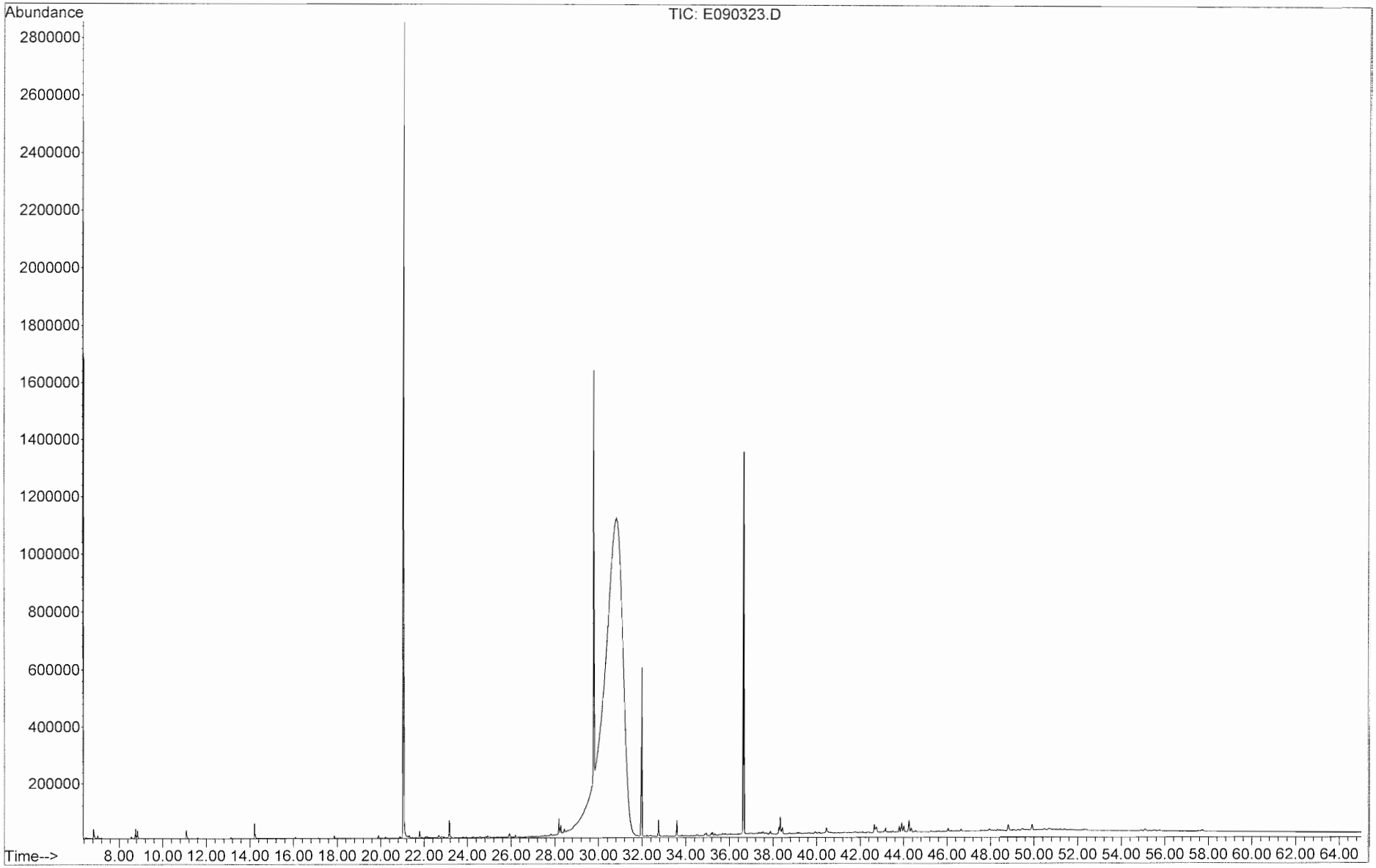
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

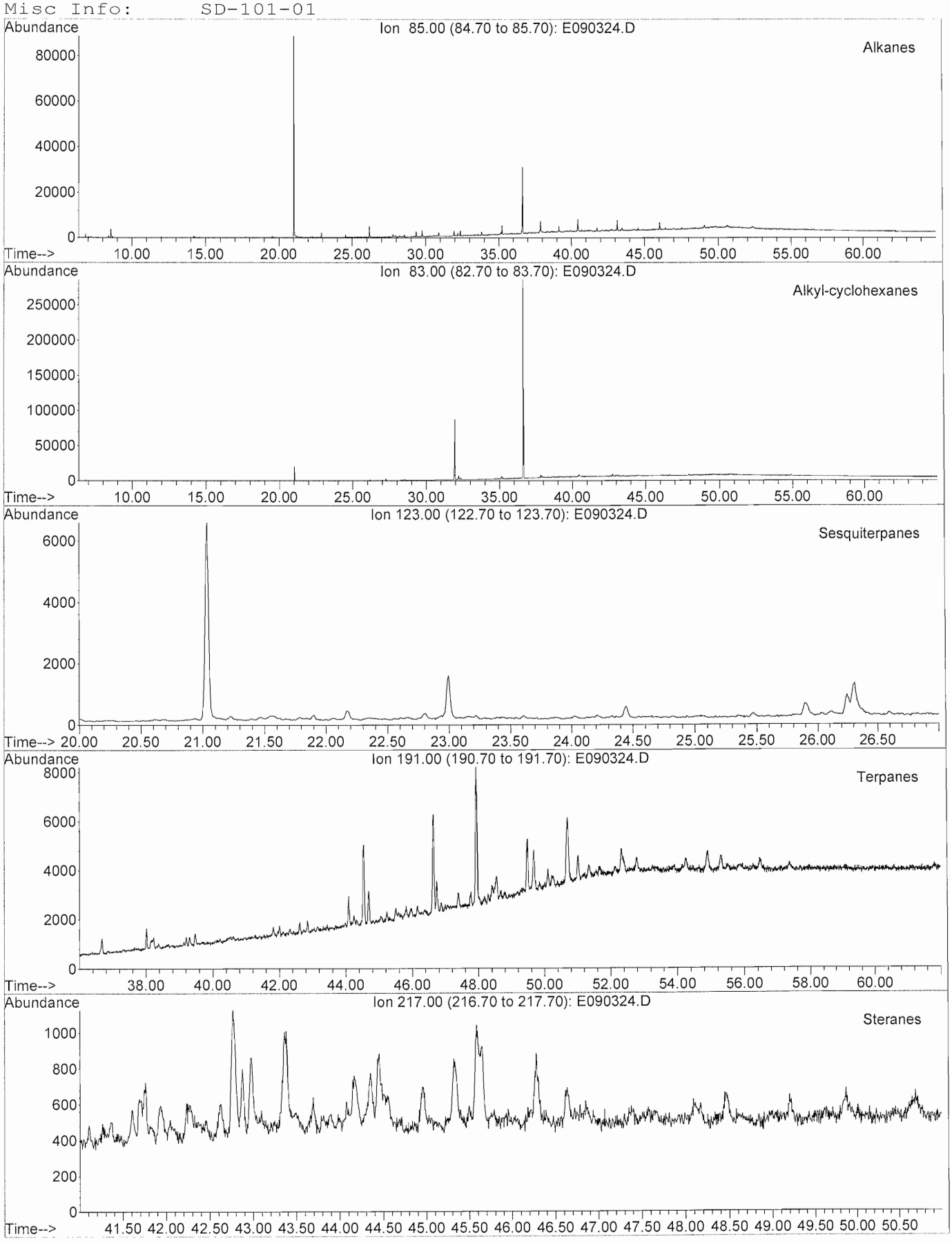
File: J:\1\DATA\E100903\E090323.D
Date Acquired: 4 Sep 2010 7:06 pm
Sample Name: TT100819-13
Misc Info: SD-101-SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090324.D
Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
Misc Info: SD-101-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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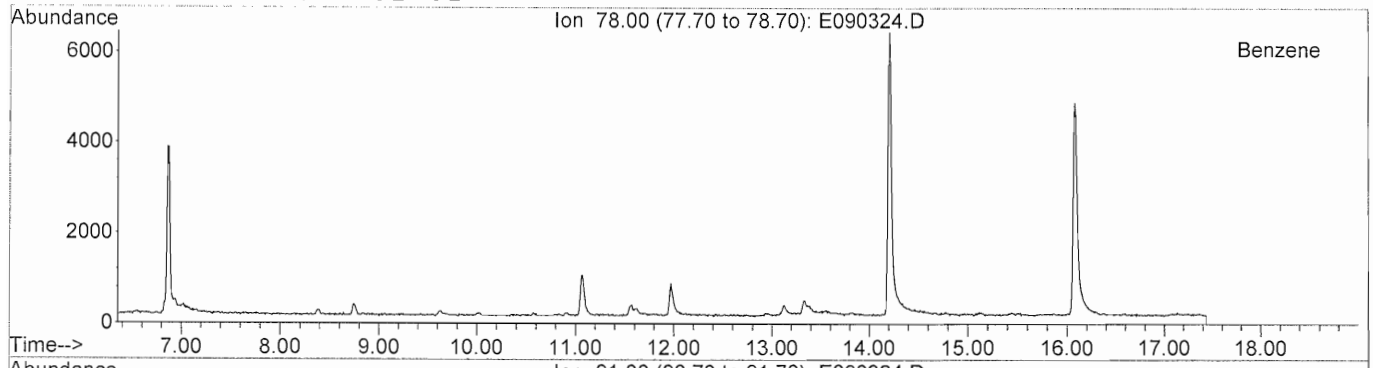
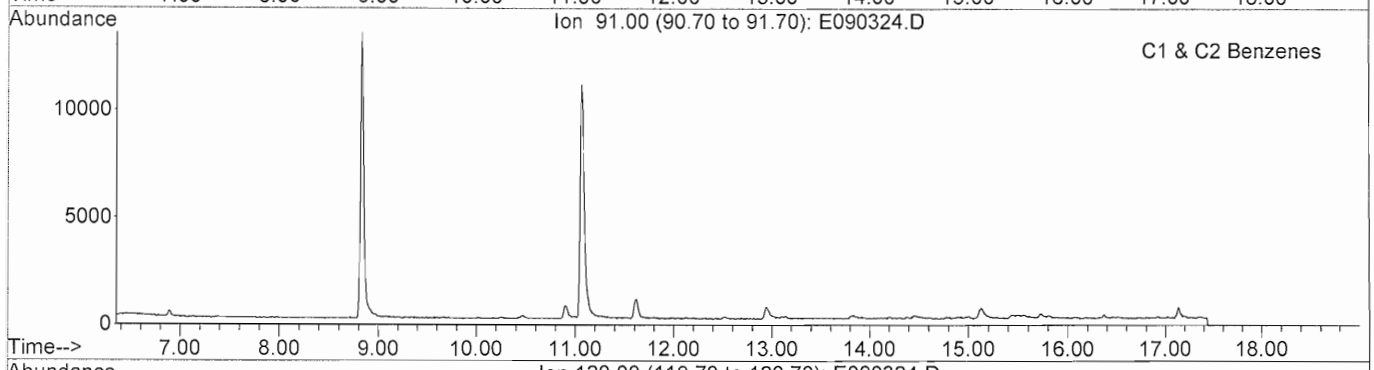
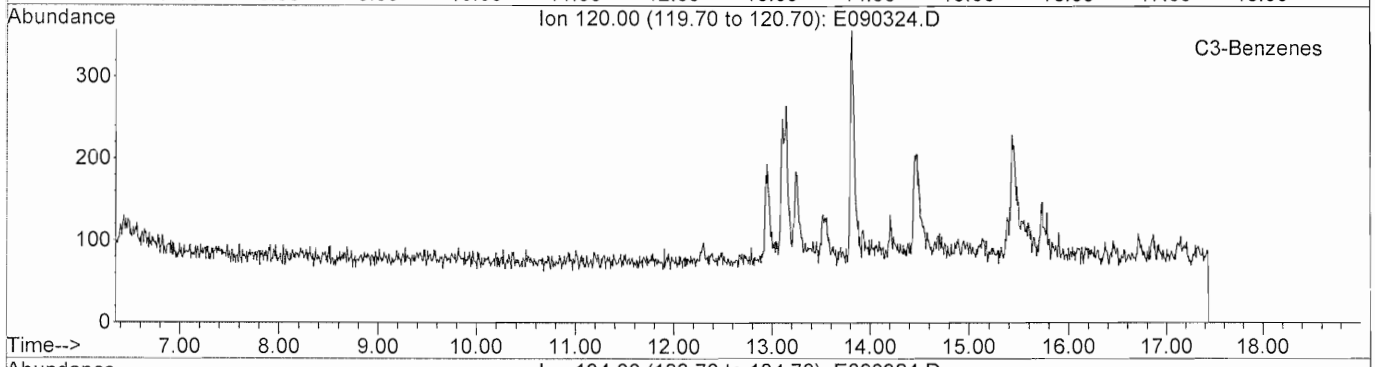
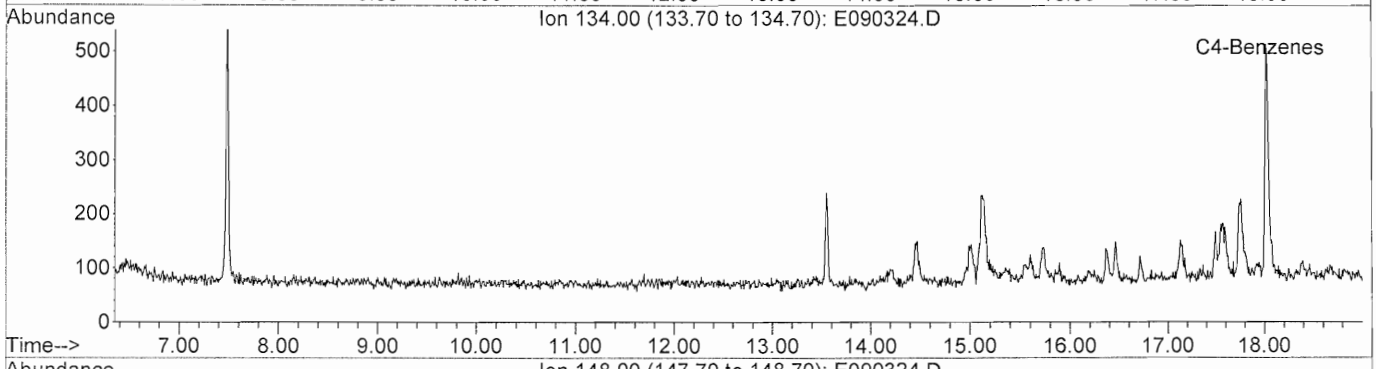
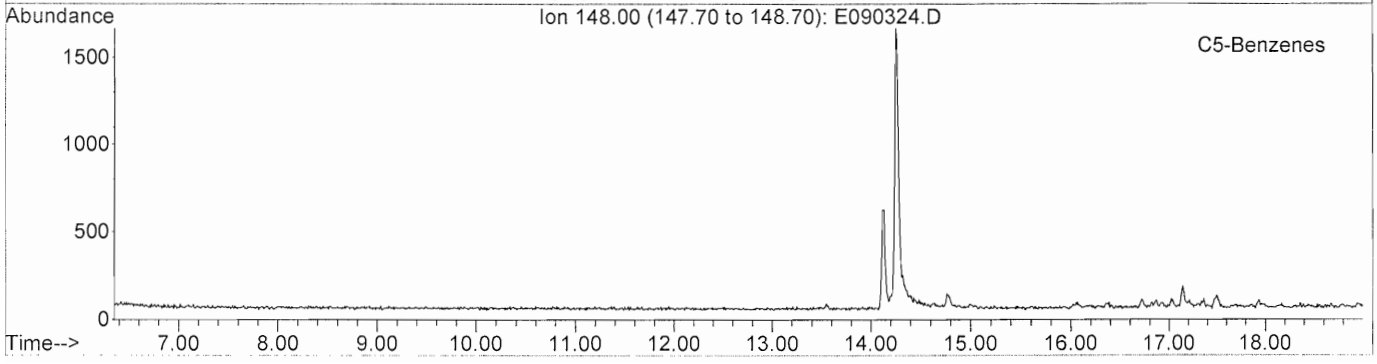
Misc Info: SD-101-01







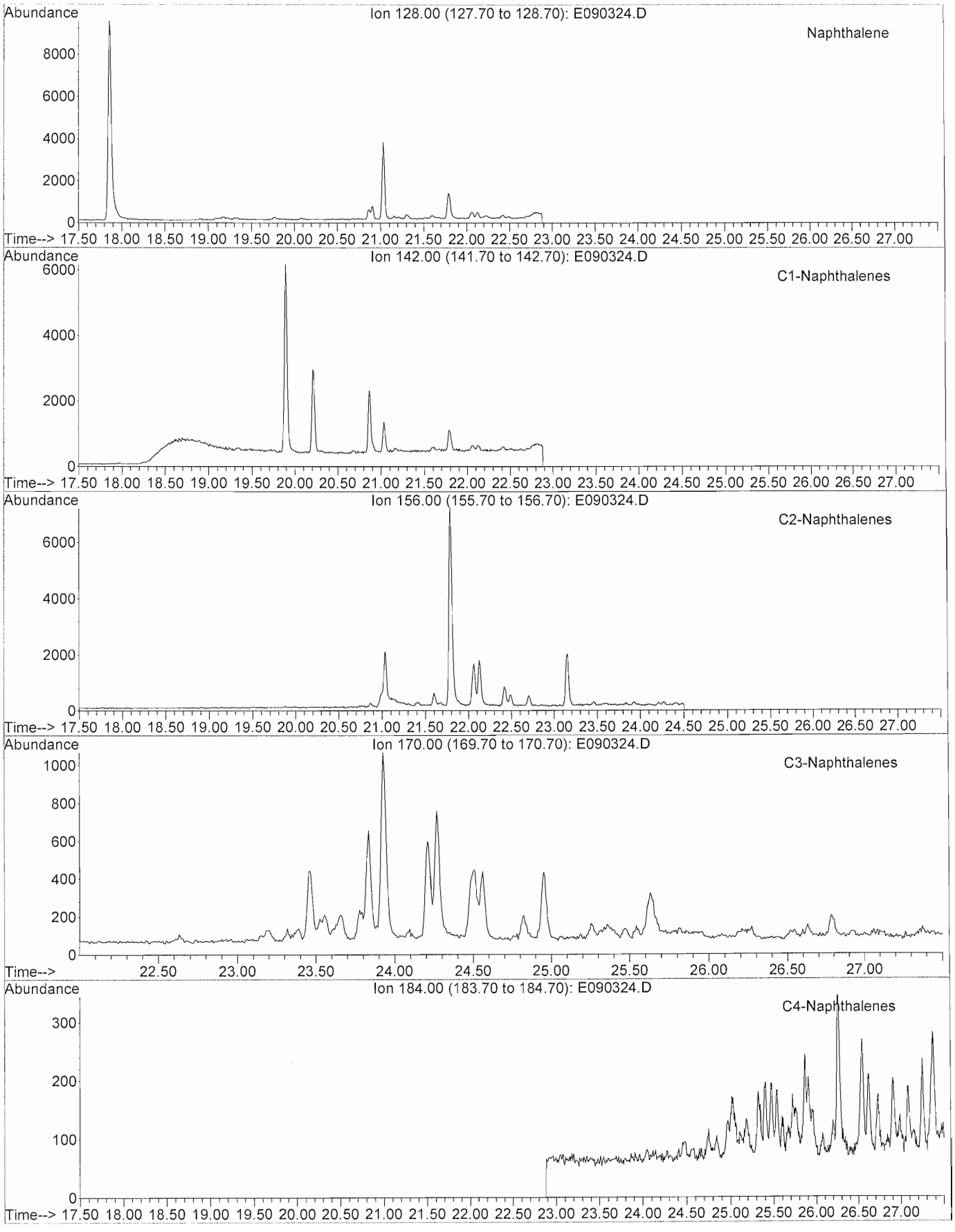




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

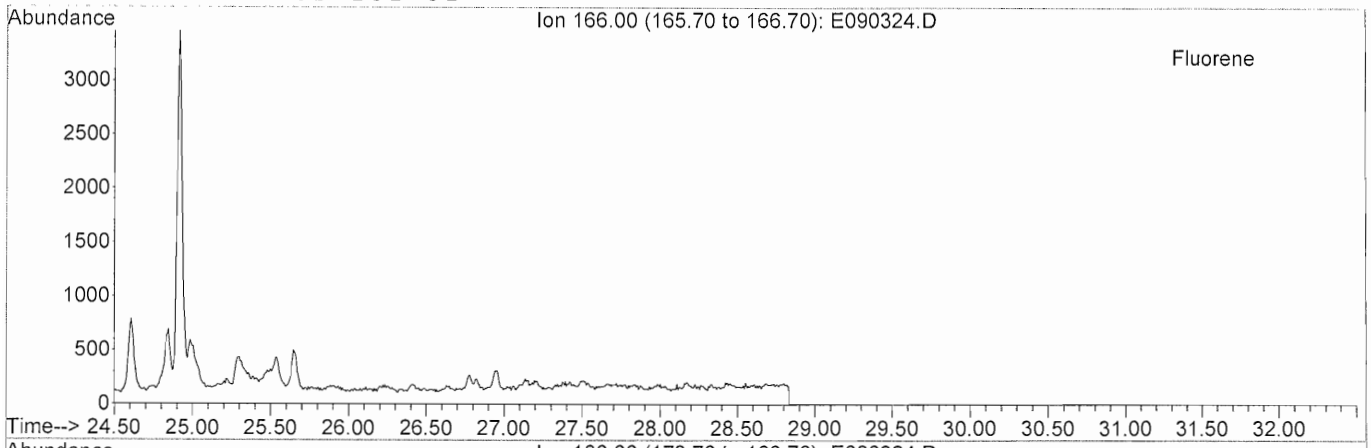
File: J:\1\DATA\E100903\E090324.D
Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
Misc Info: SD-101-01

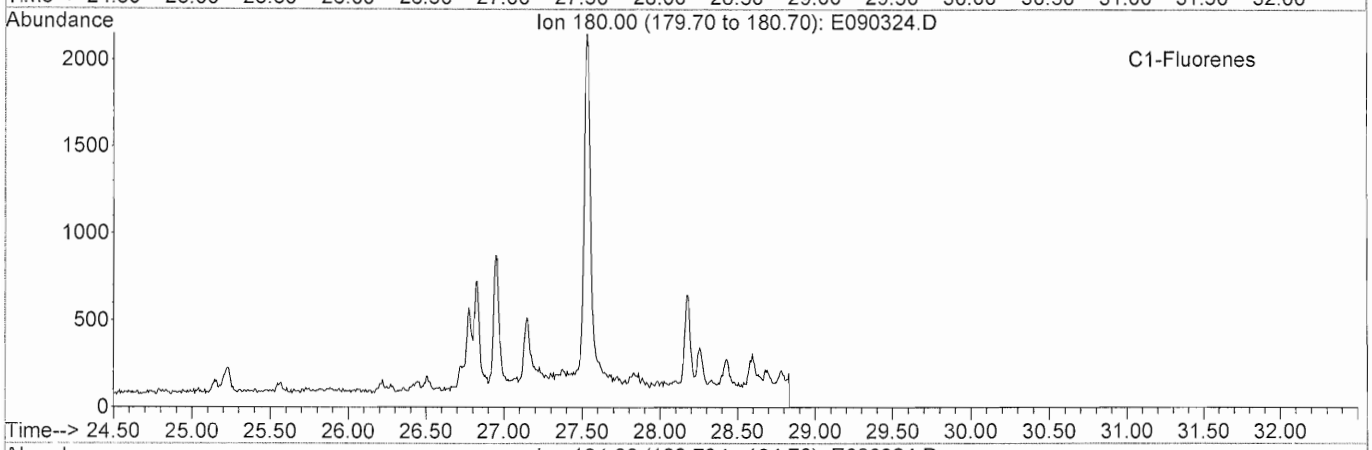


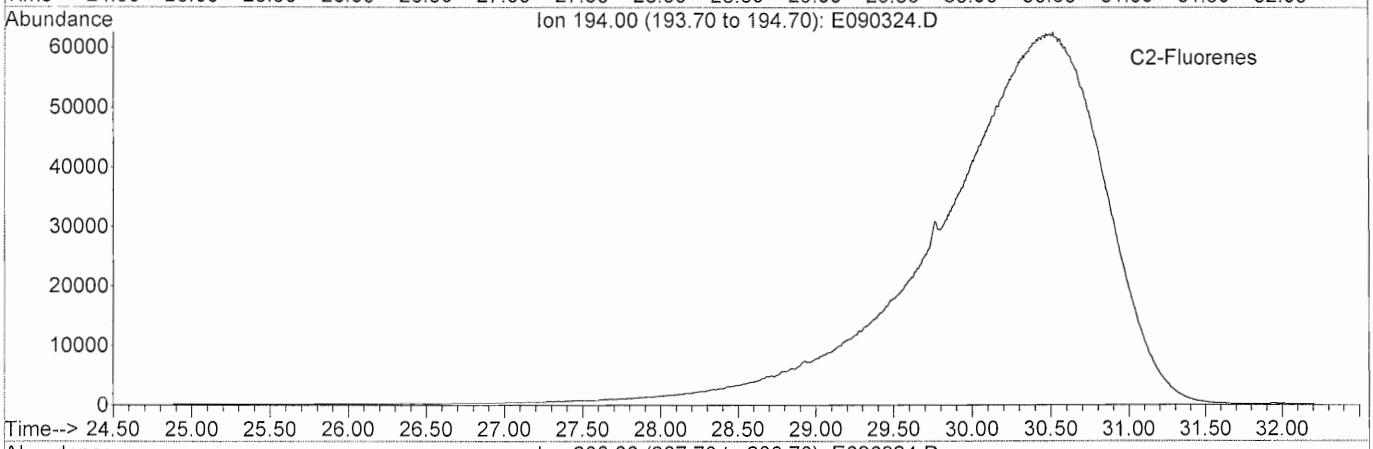
META Environmental, Inc.

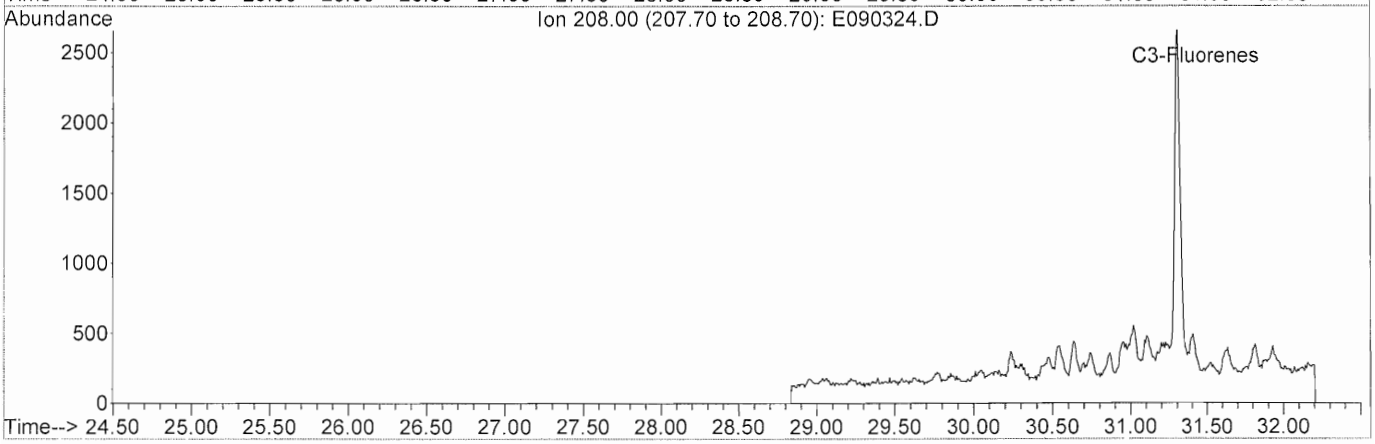
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090324.D
Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
Misc Info: SD-101-01









META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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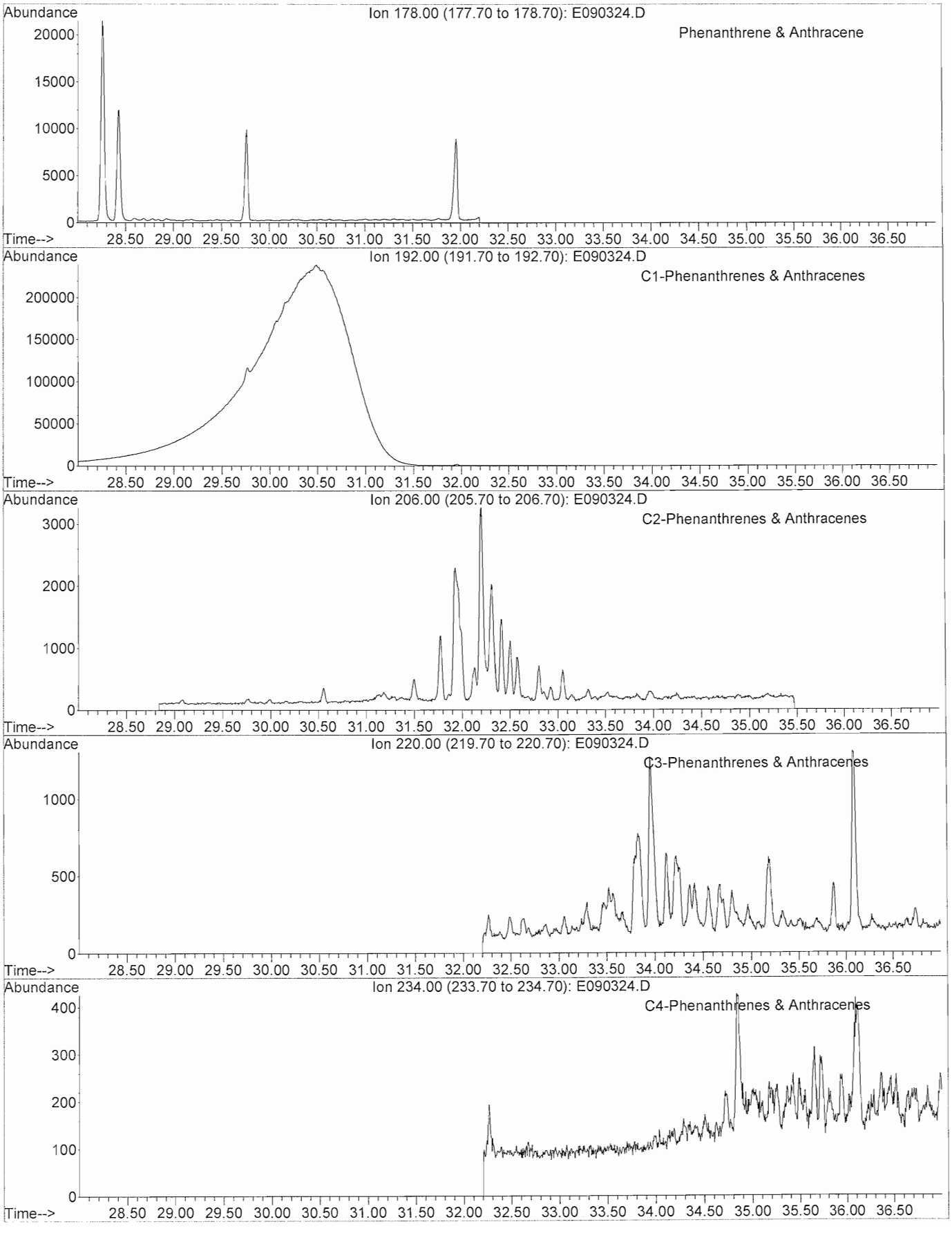
Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
Misc Info: SD-101-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
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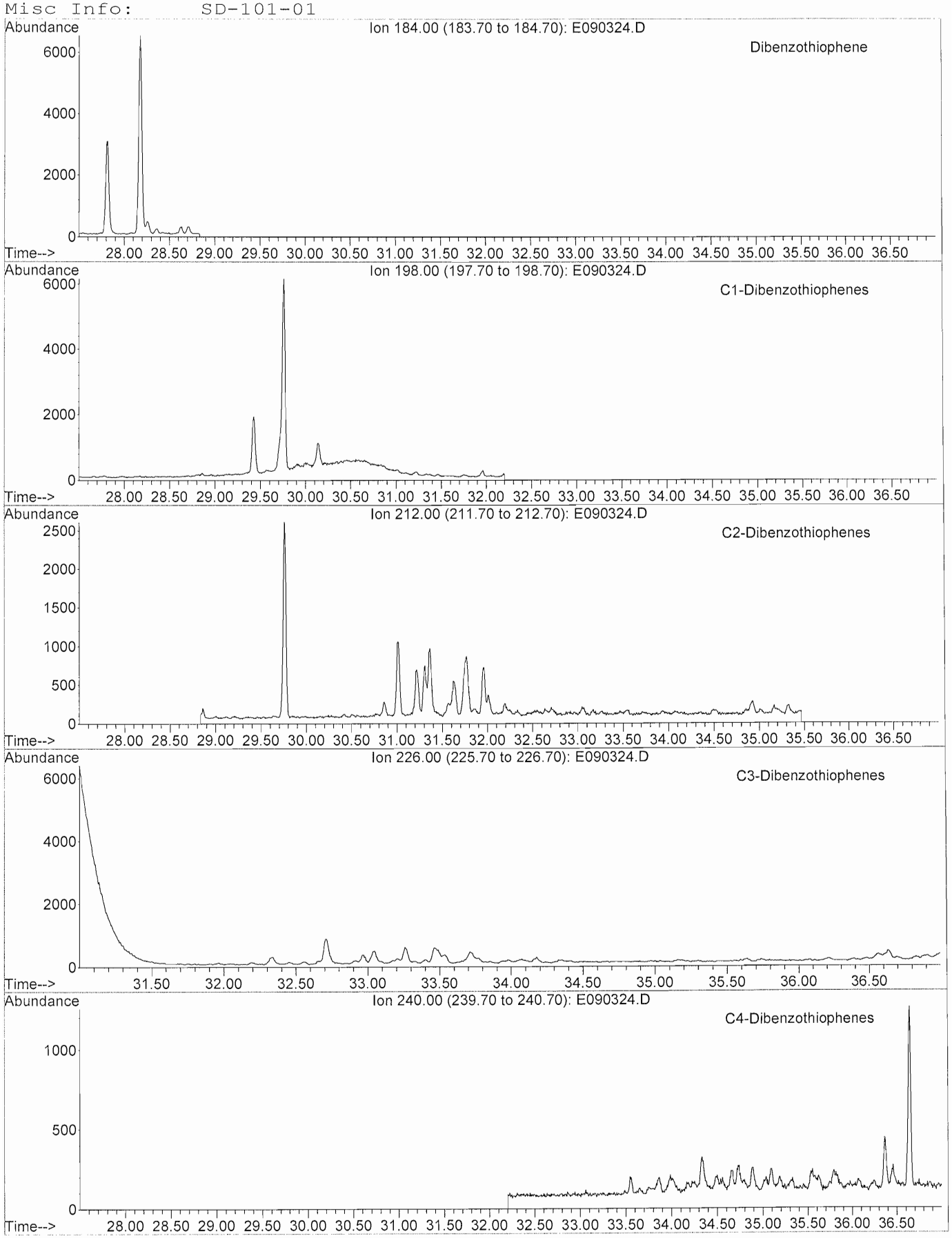
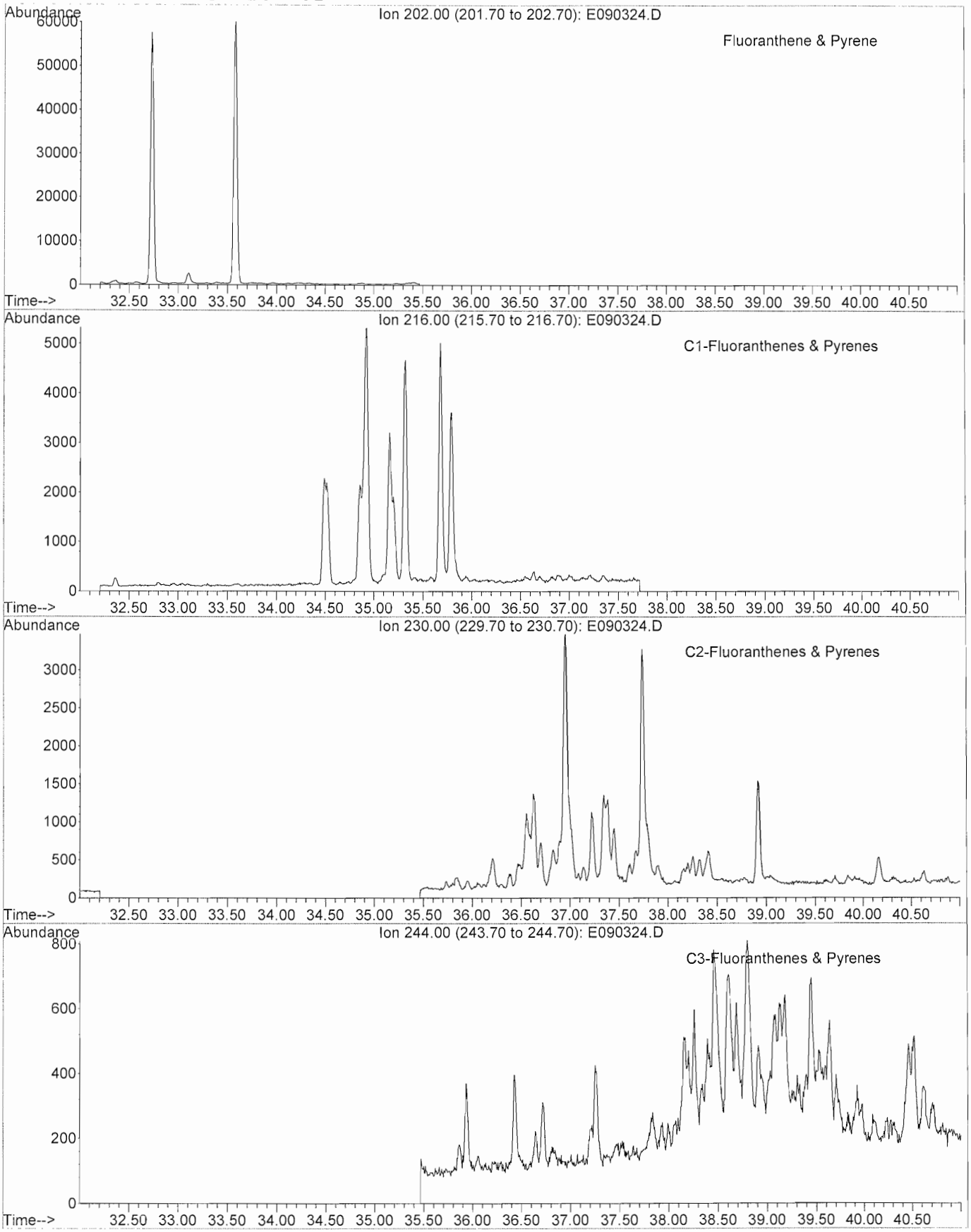


META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090324.D
Date Acquired: 4 Sep 2010 8:26 pm
Sample Name: TT100819-14
Misc Info: SD-101-01



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 4 Sep 2010 8:26 pm
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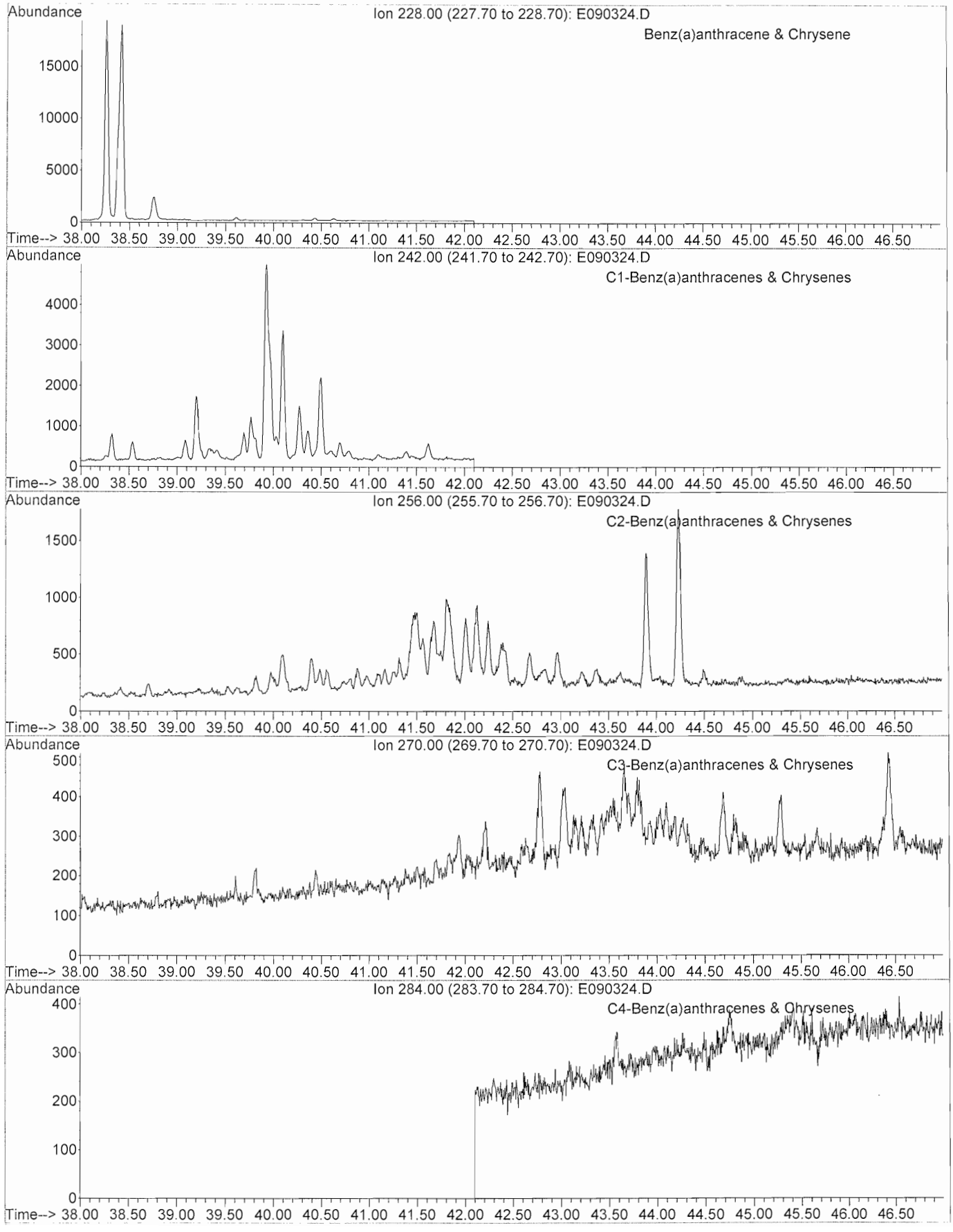

META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

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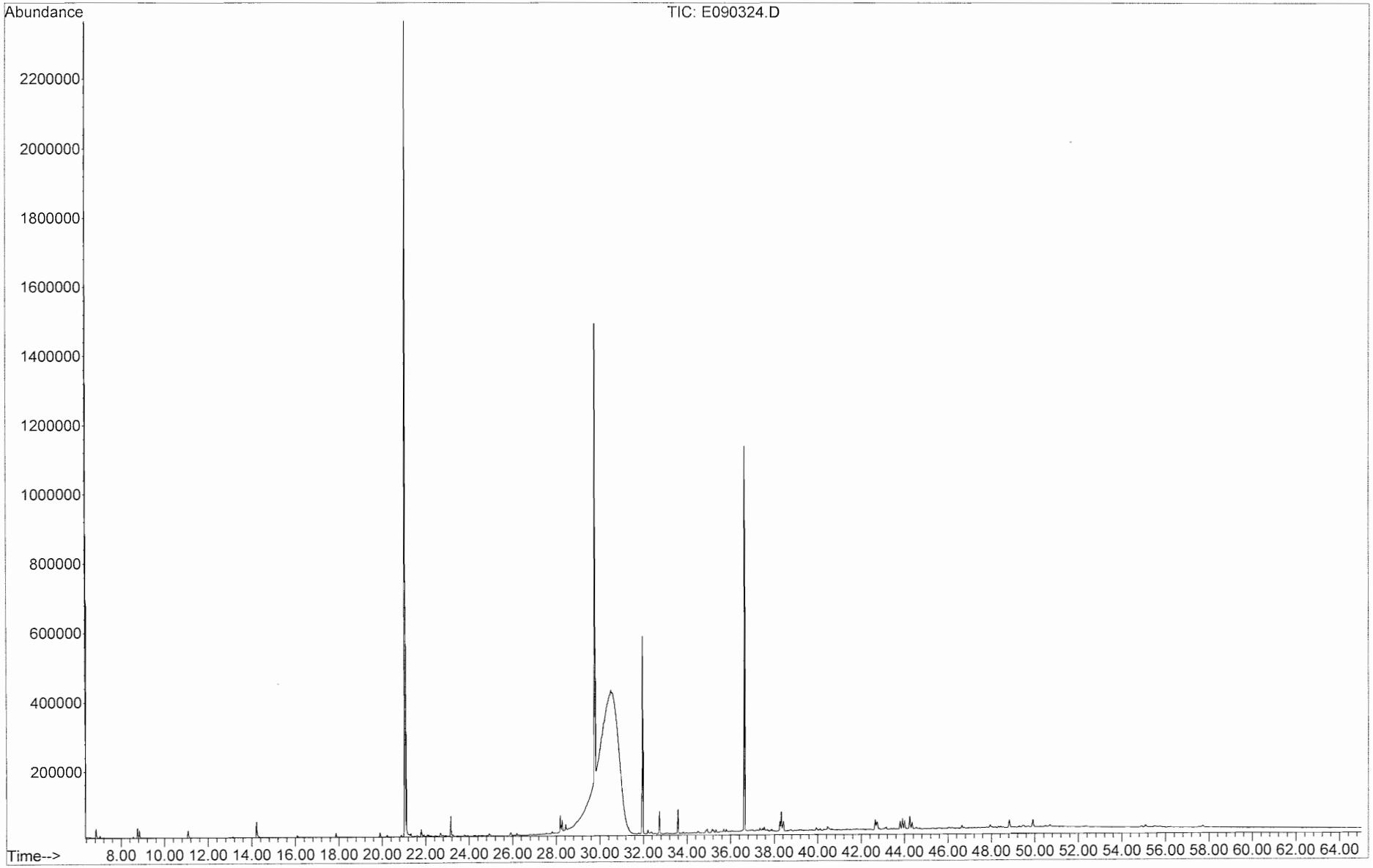
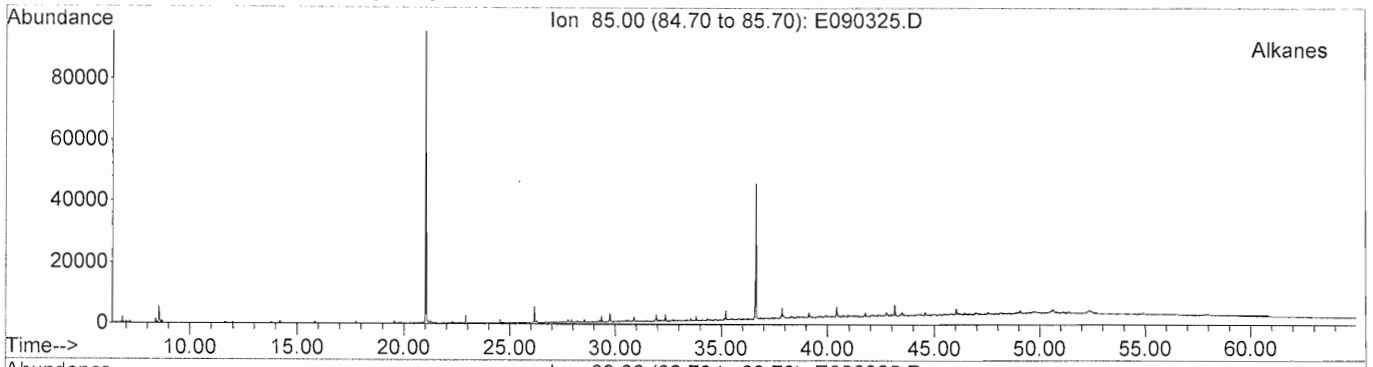
Misc Info: SD-101-01

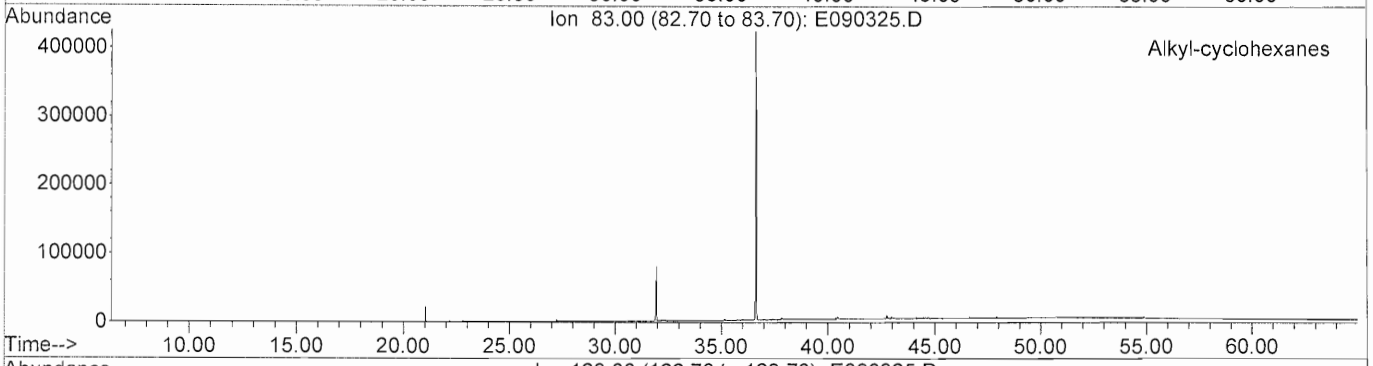


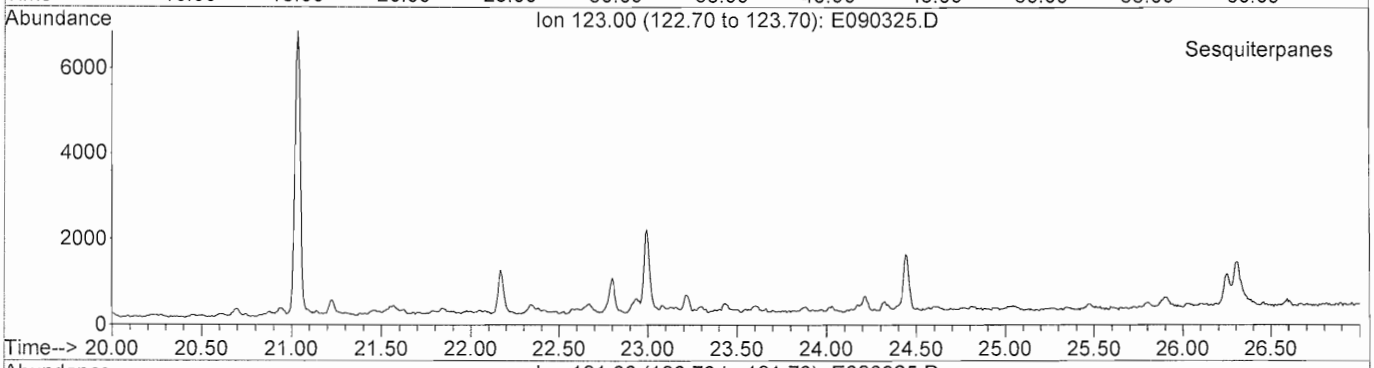
META Environmental, Inc.

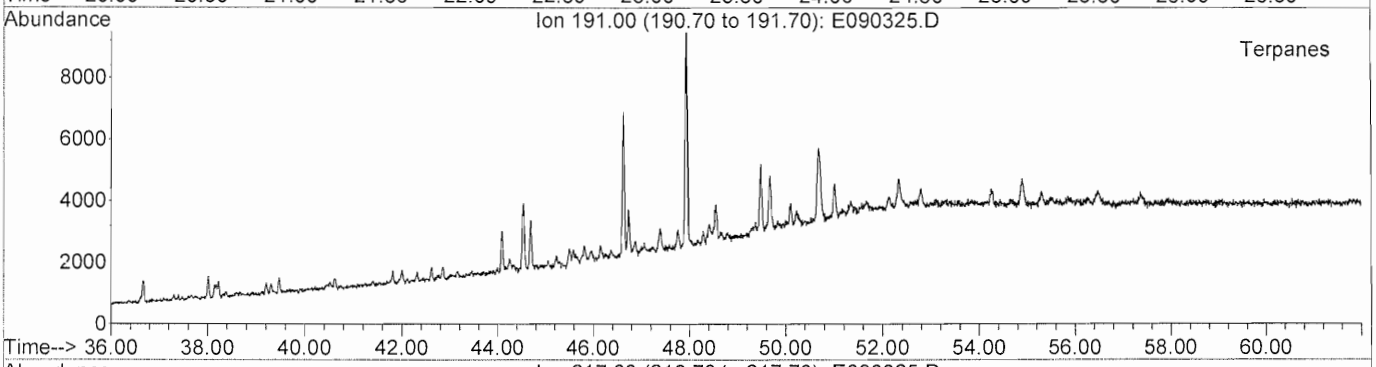
GC/MS EXTRACTED ION CHROMATOGRAM

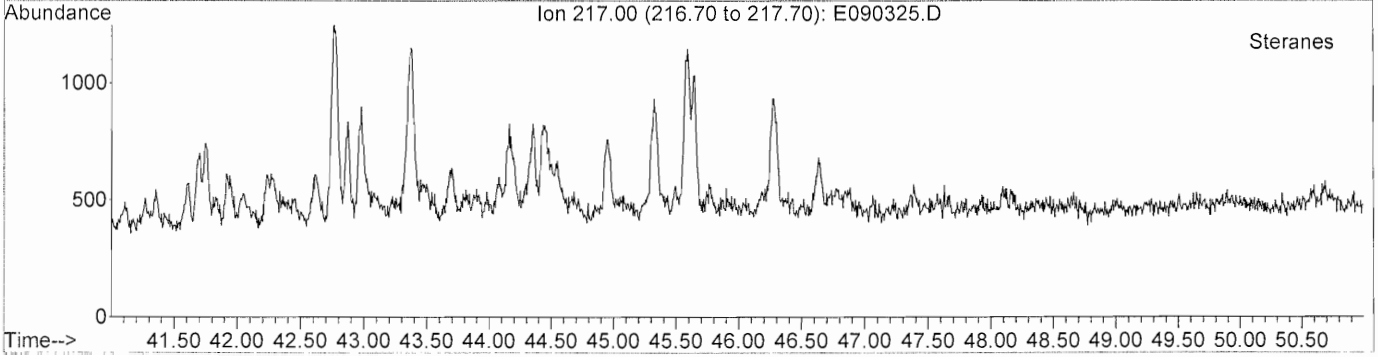
File: J:\1\DATA\E100903\E090325.D
Date Acquired: 4 Sep 2010 9:47 pm
Sample Name: TT100819-15
Misc Info: SD-101-02











META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090325.D
Date Acquired: 4 Sep 2010 9:47 pm
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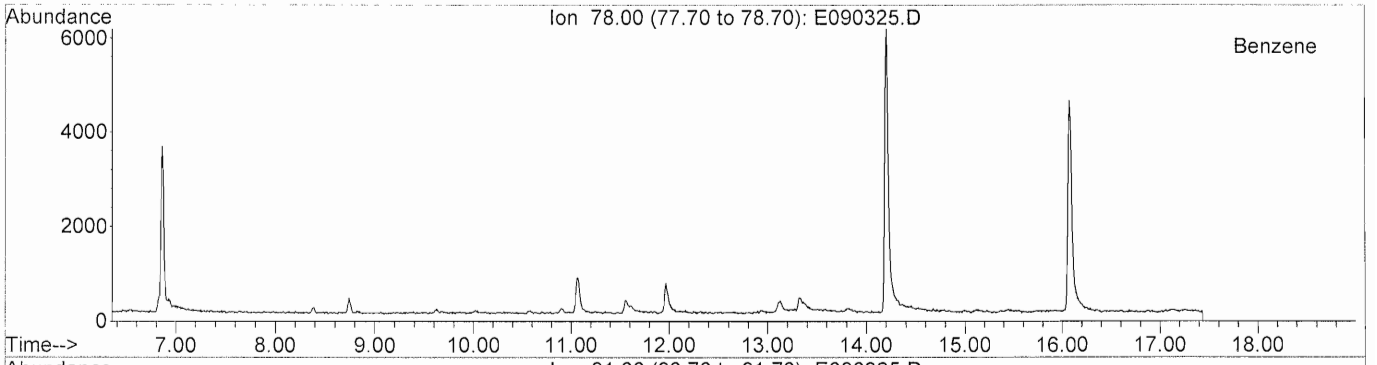

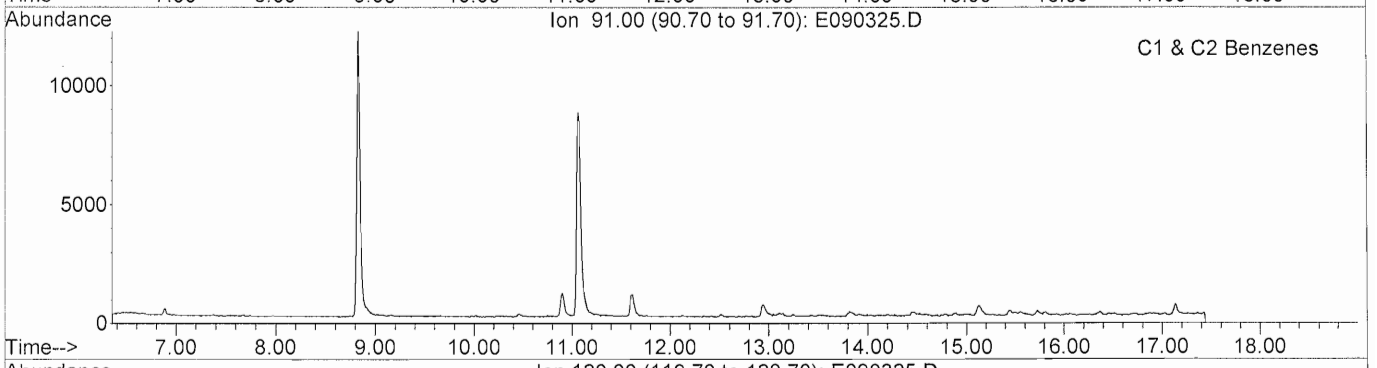

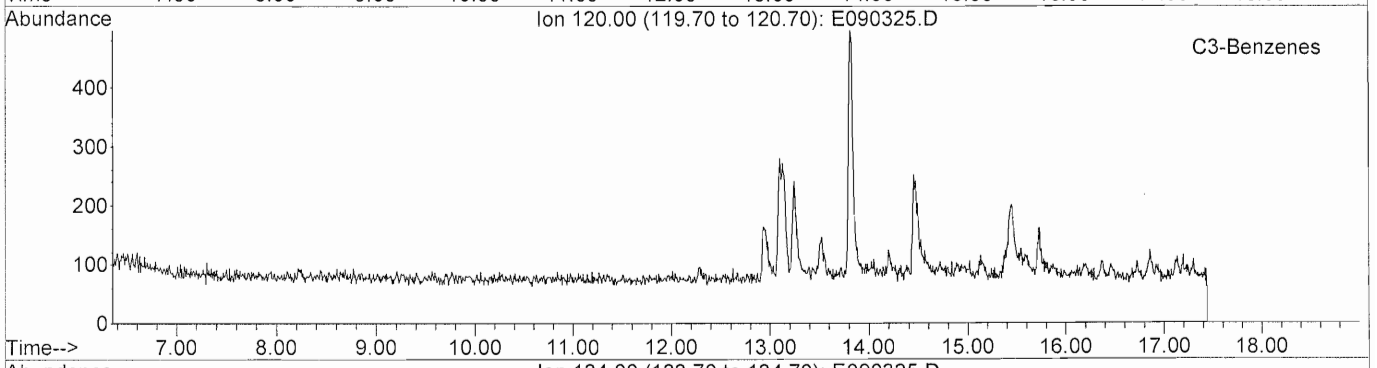

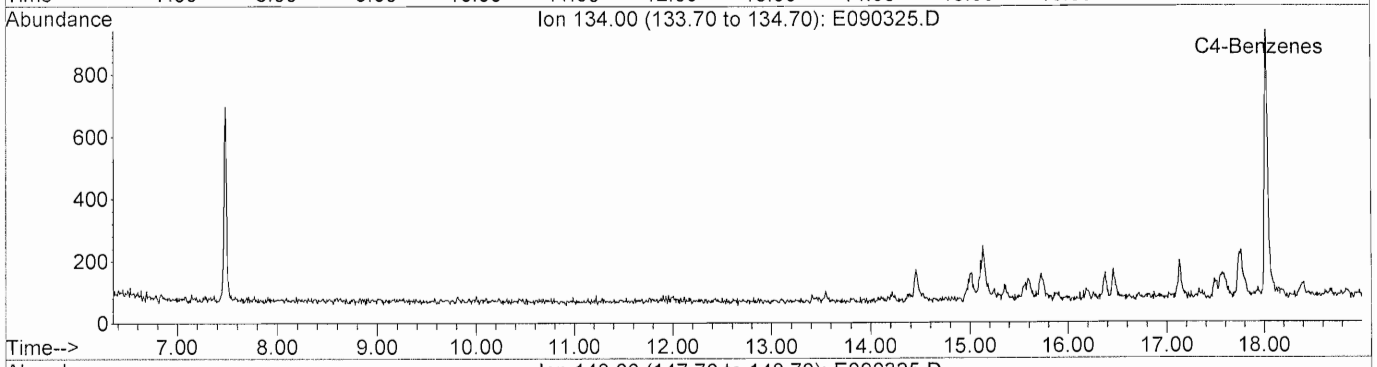

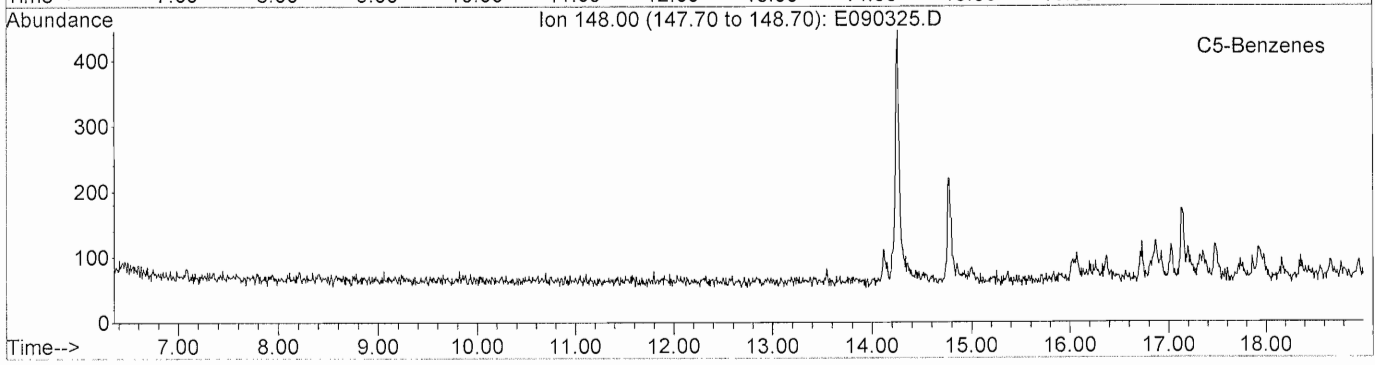

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090325.D
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Sample Name: TT100819-15
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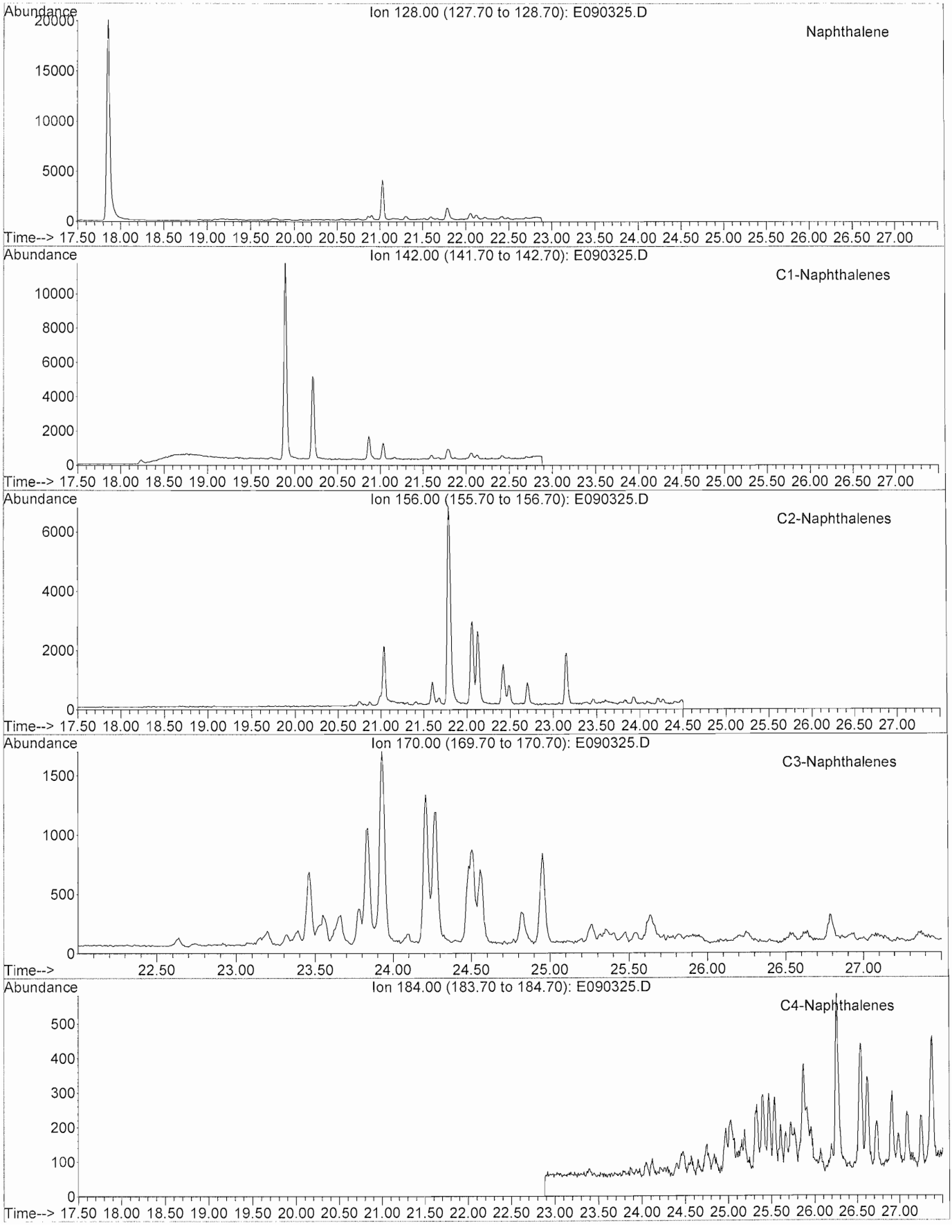

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Sample Name: TT100819-15
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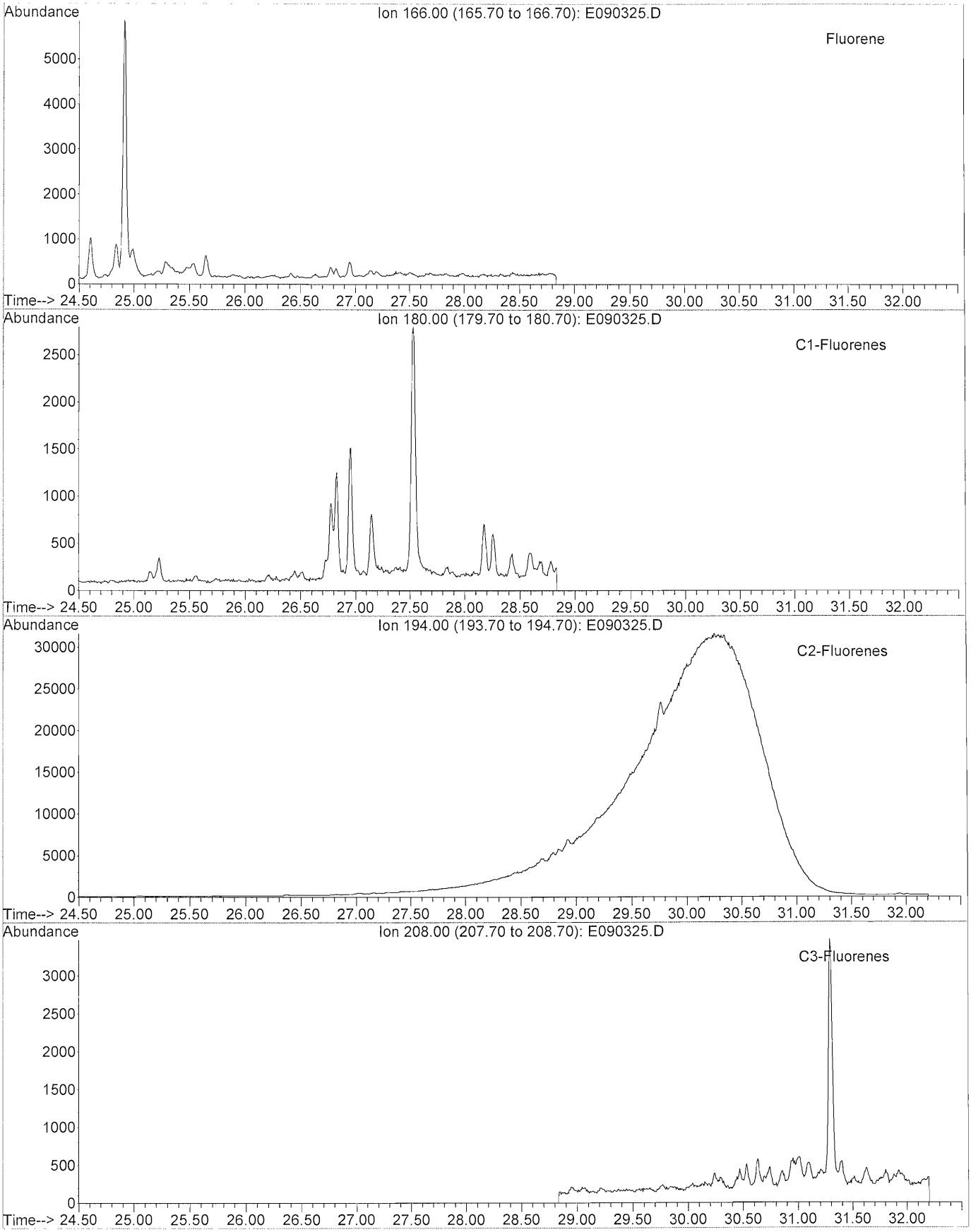

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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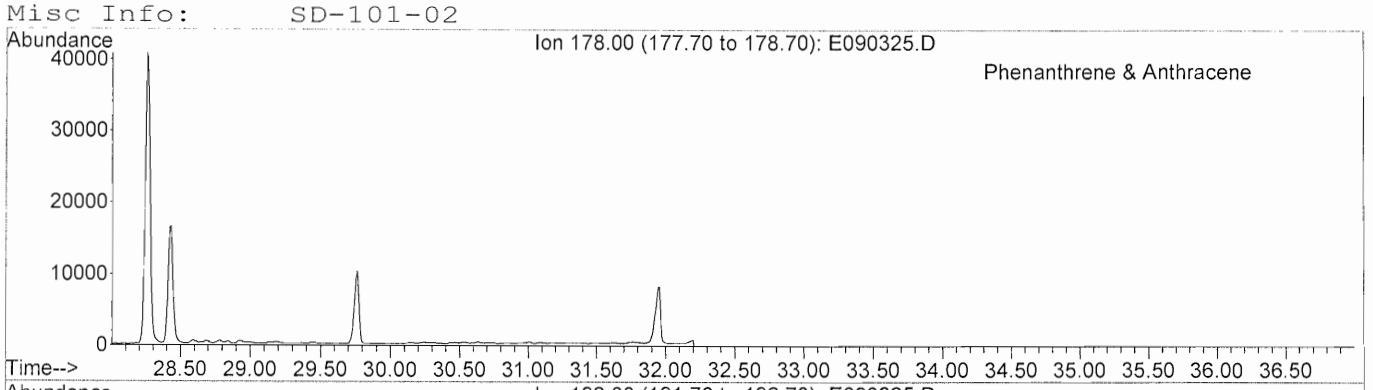

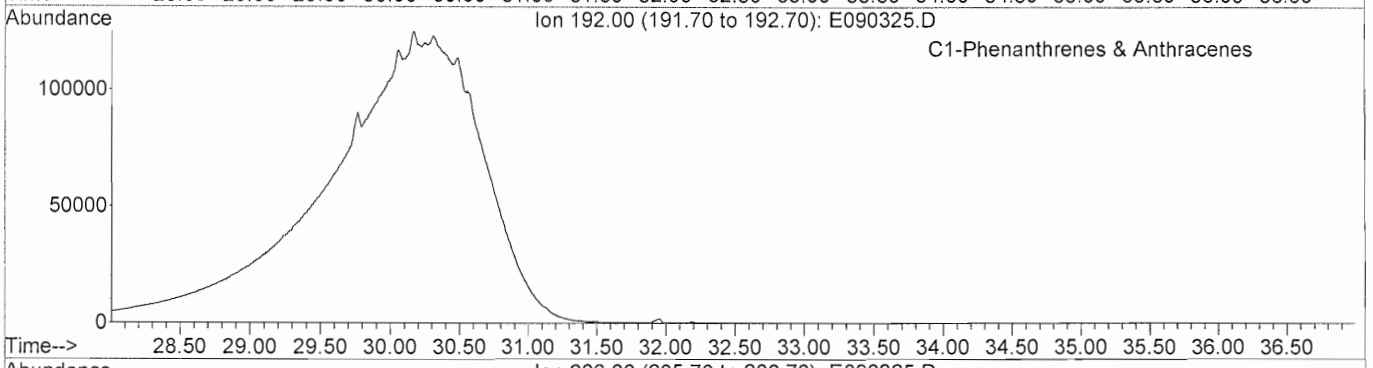

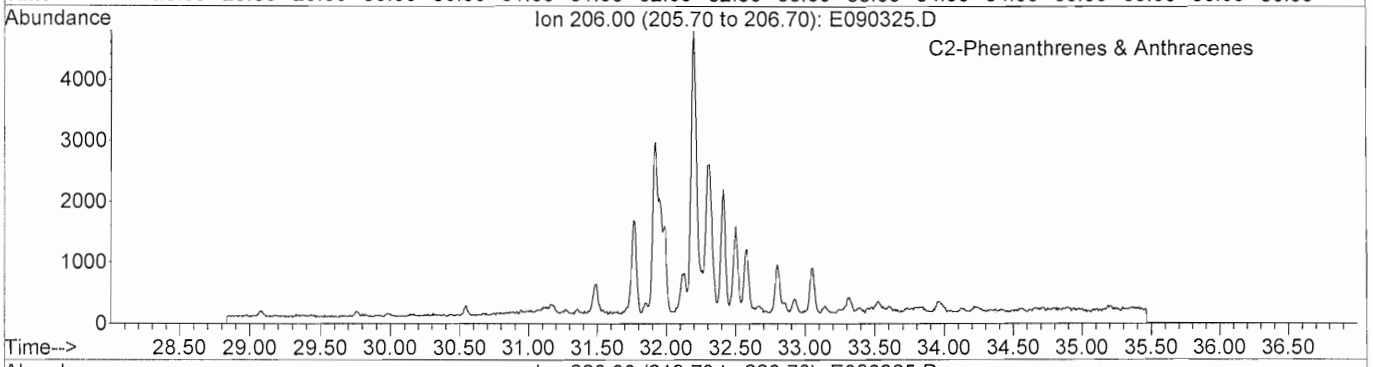

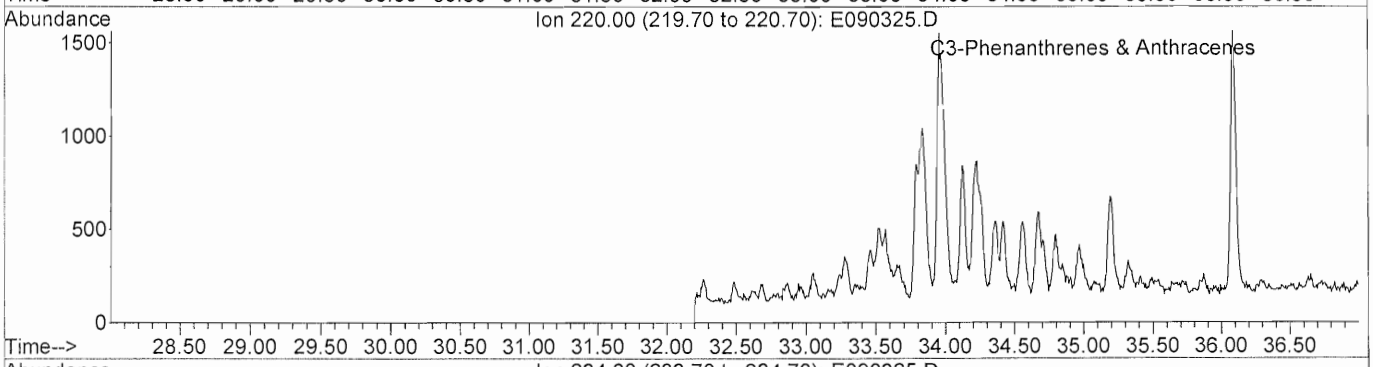

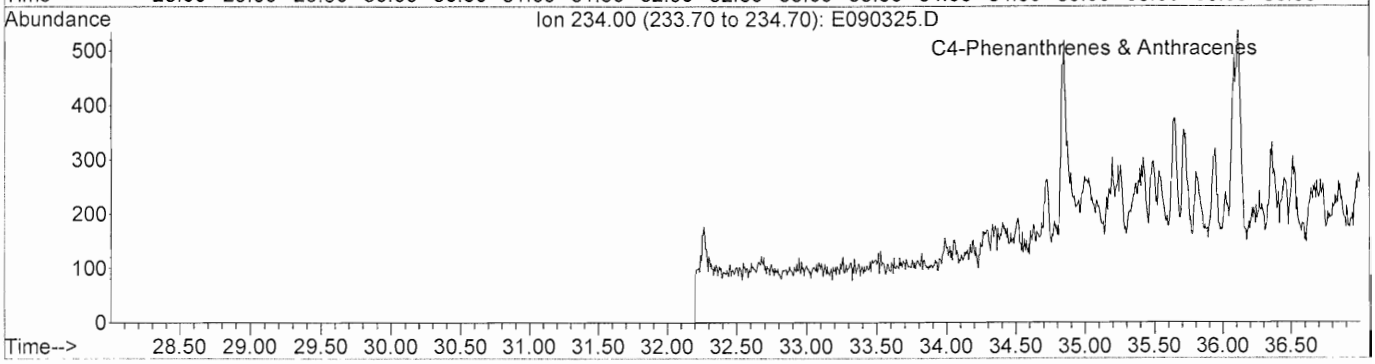

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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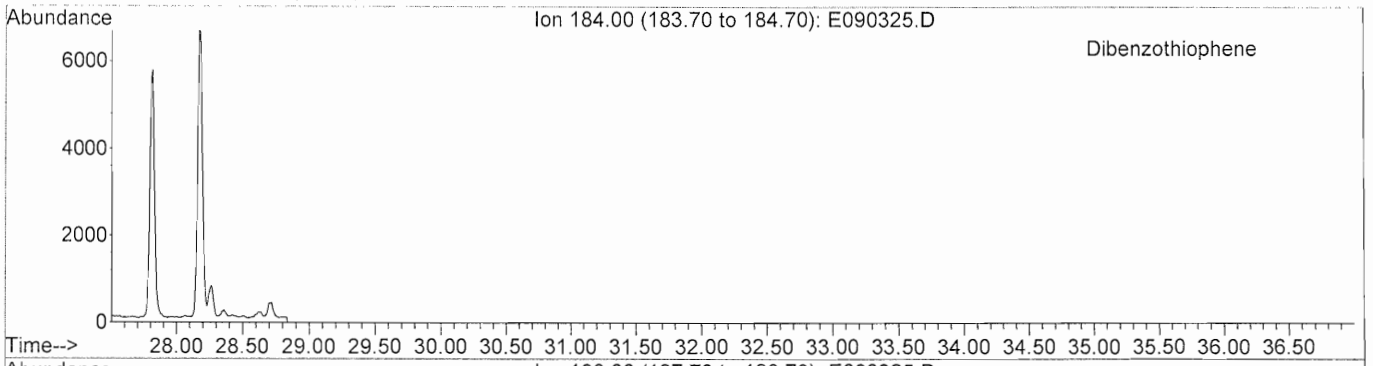

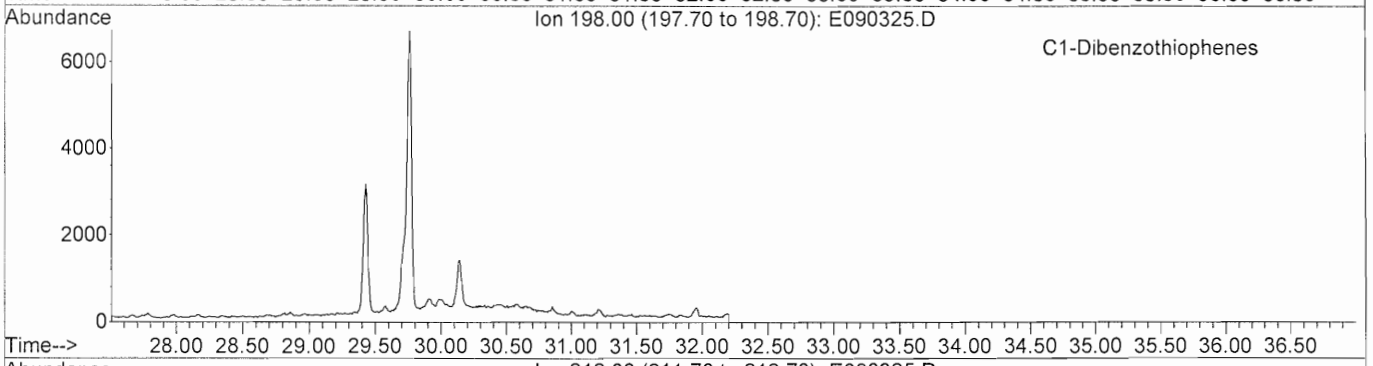

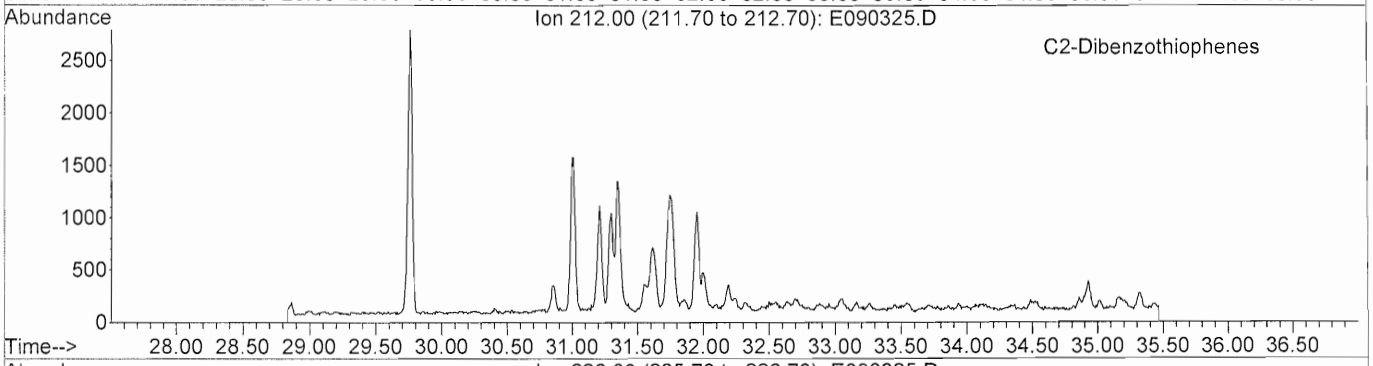

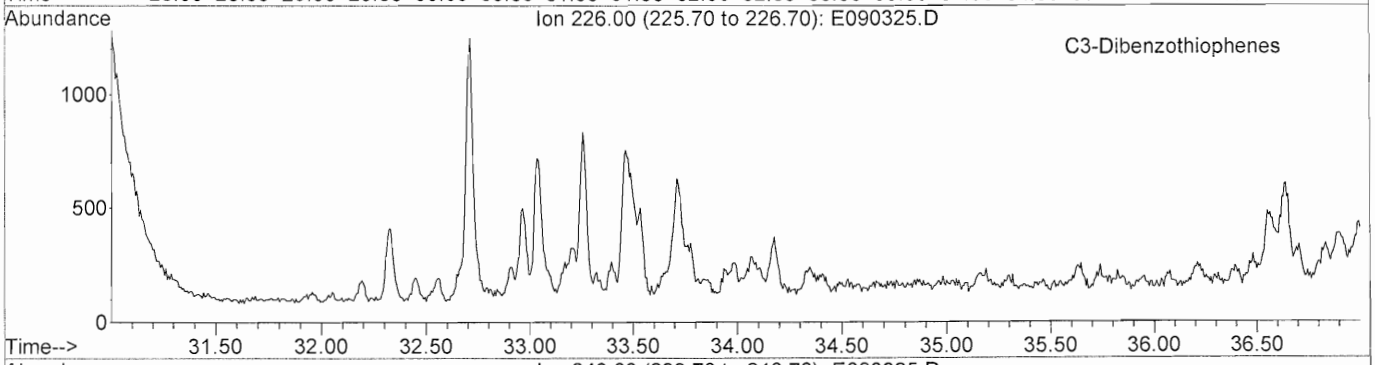

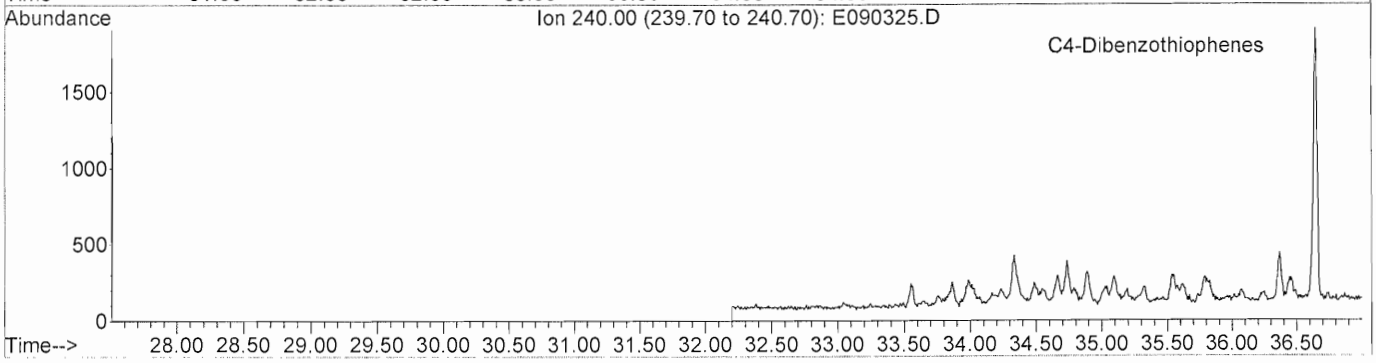

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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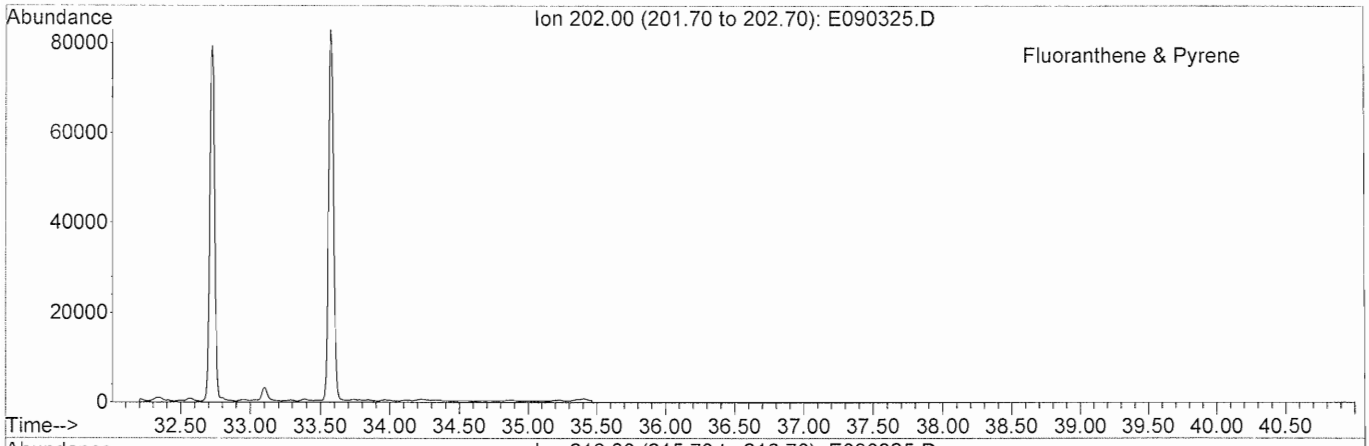

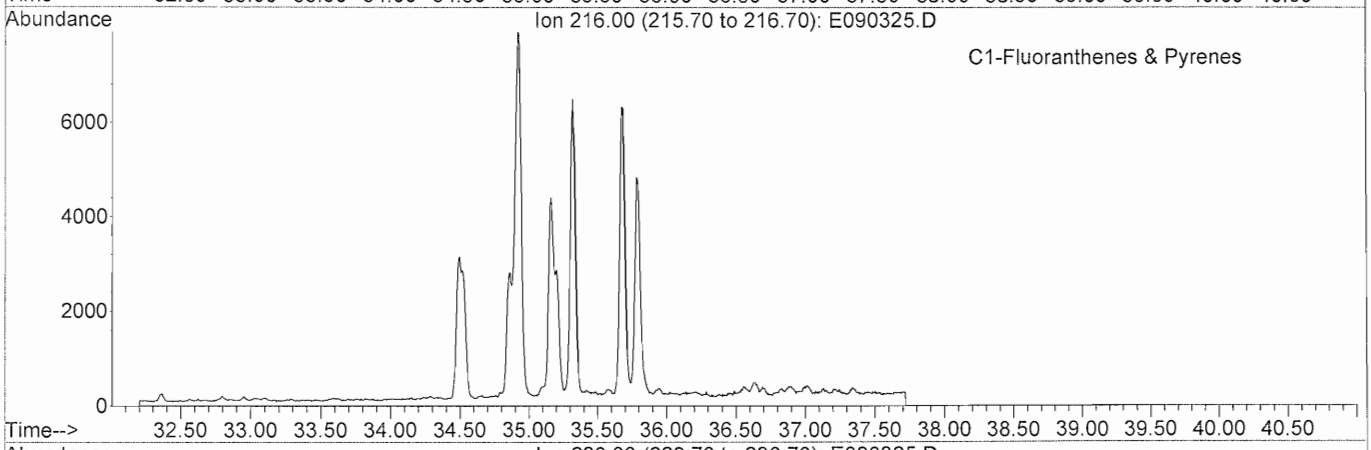

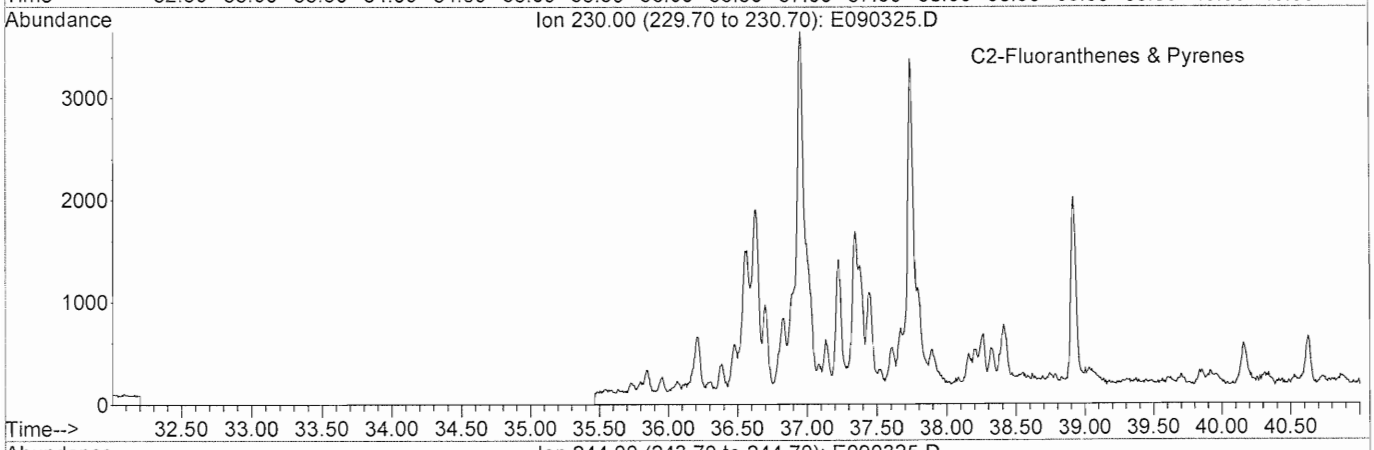

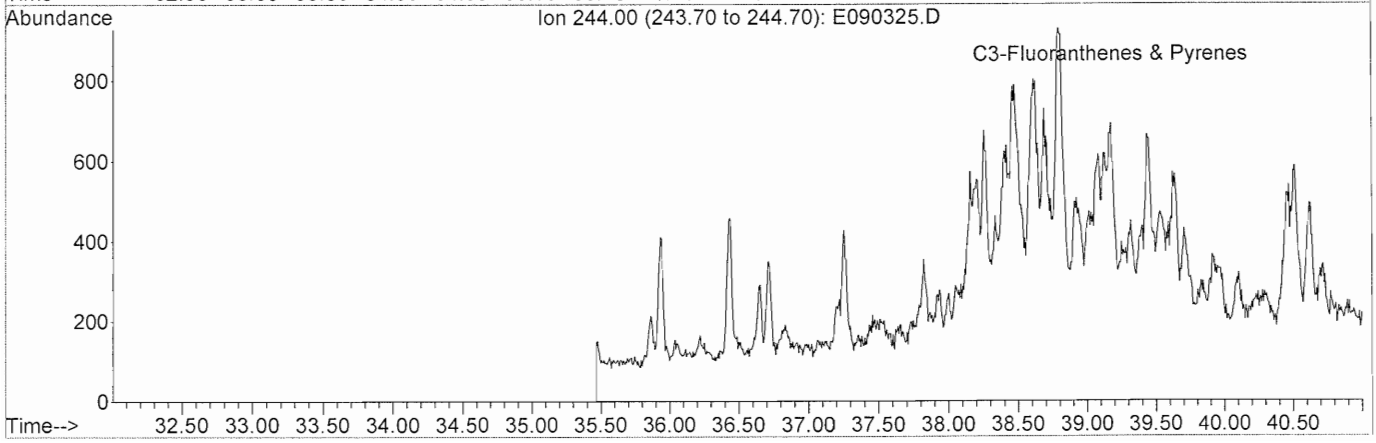

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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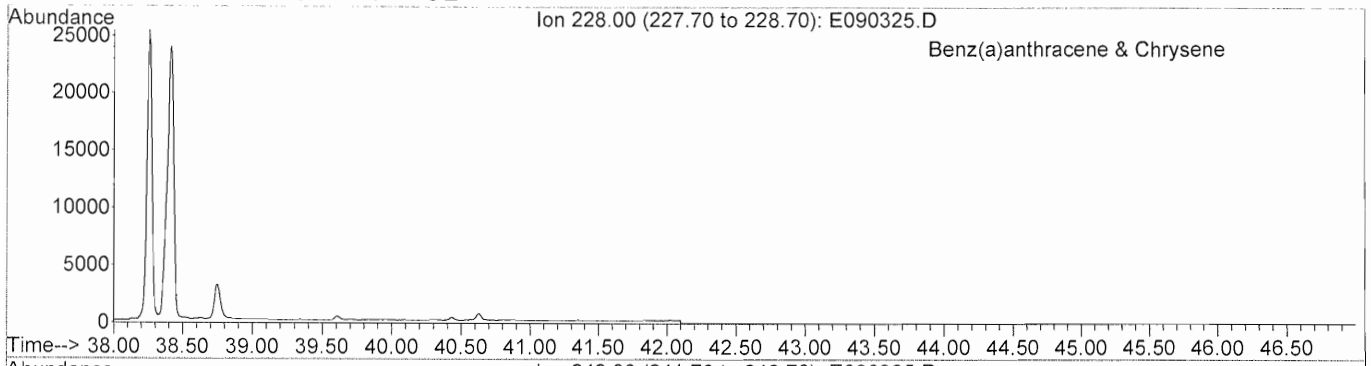
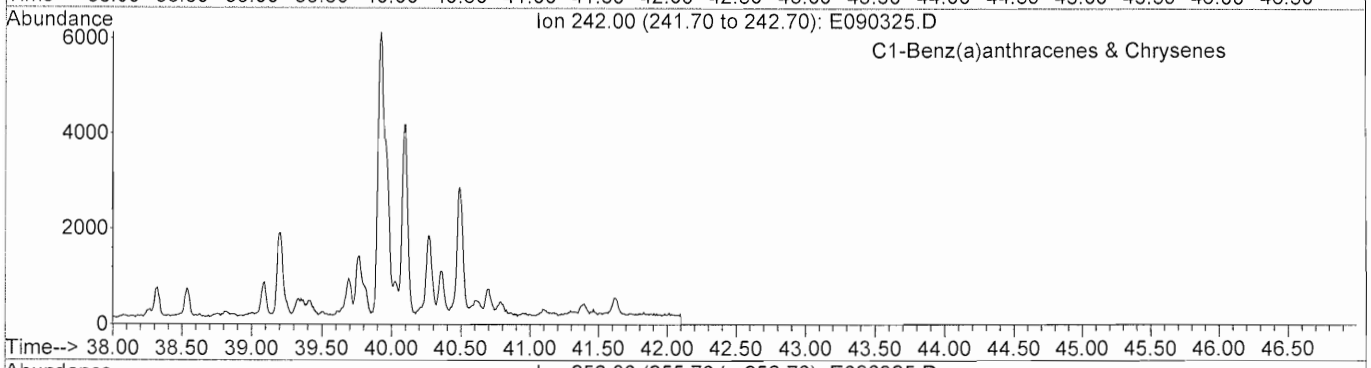
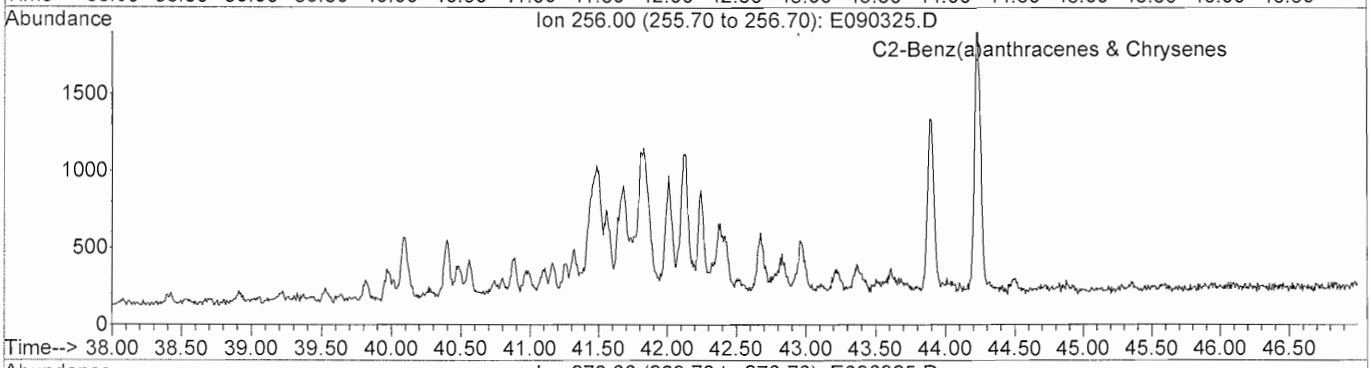
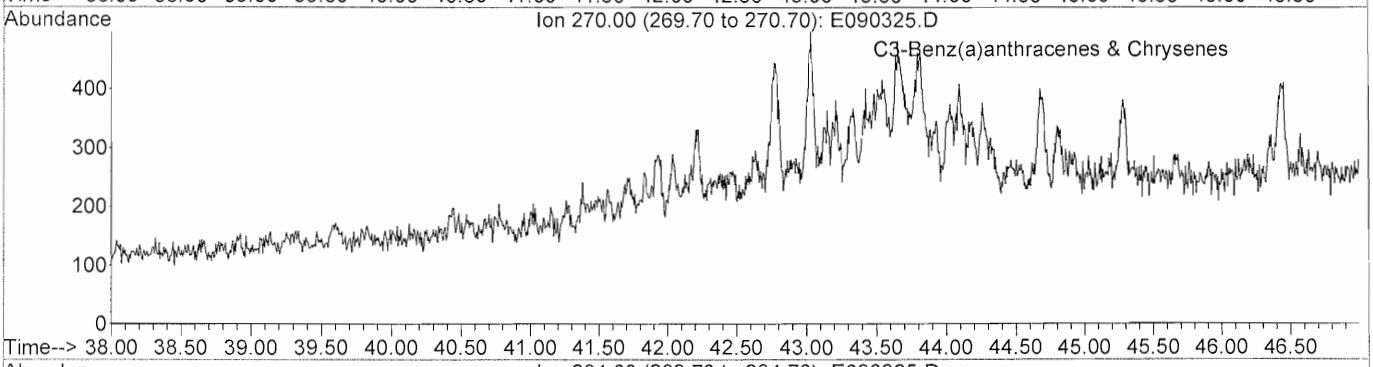
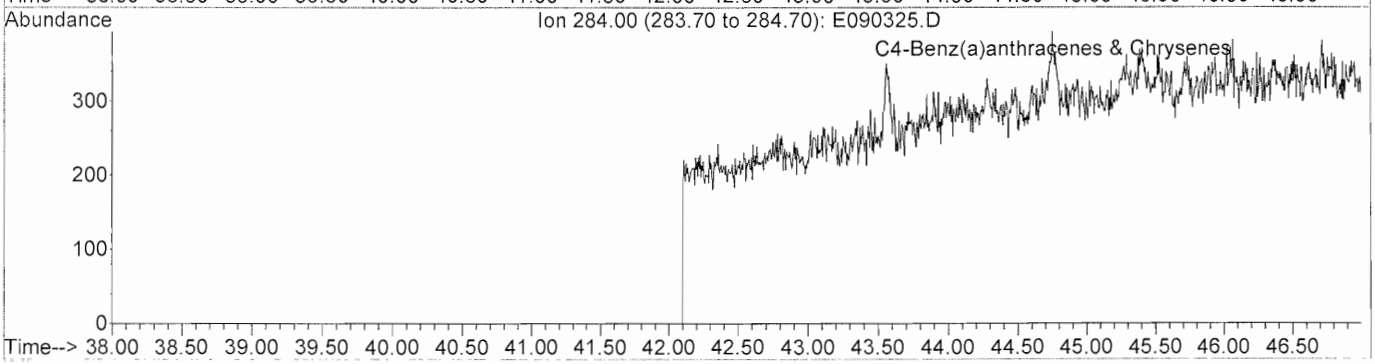
Date Acquired: 4 Sep 2010 9:47 pm
Sample Name: TT100819-15
Misc Info: SD-101-02











META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

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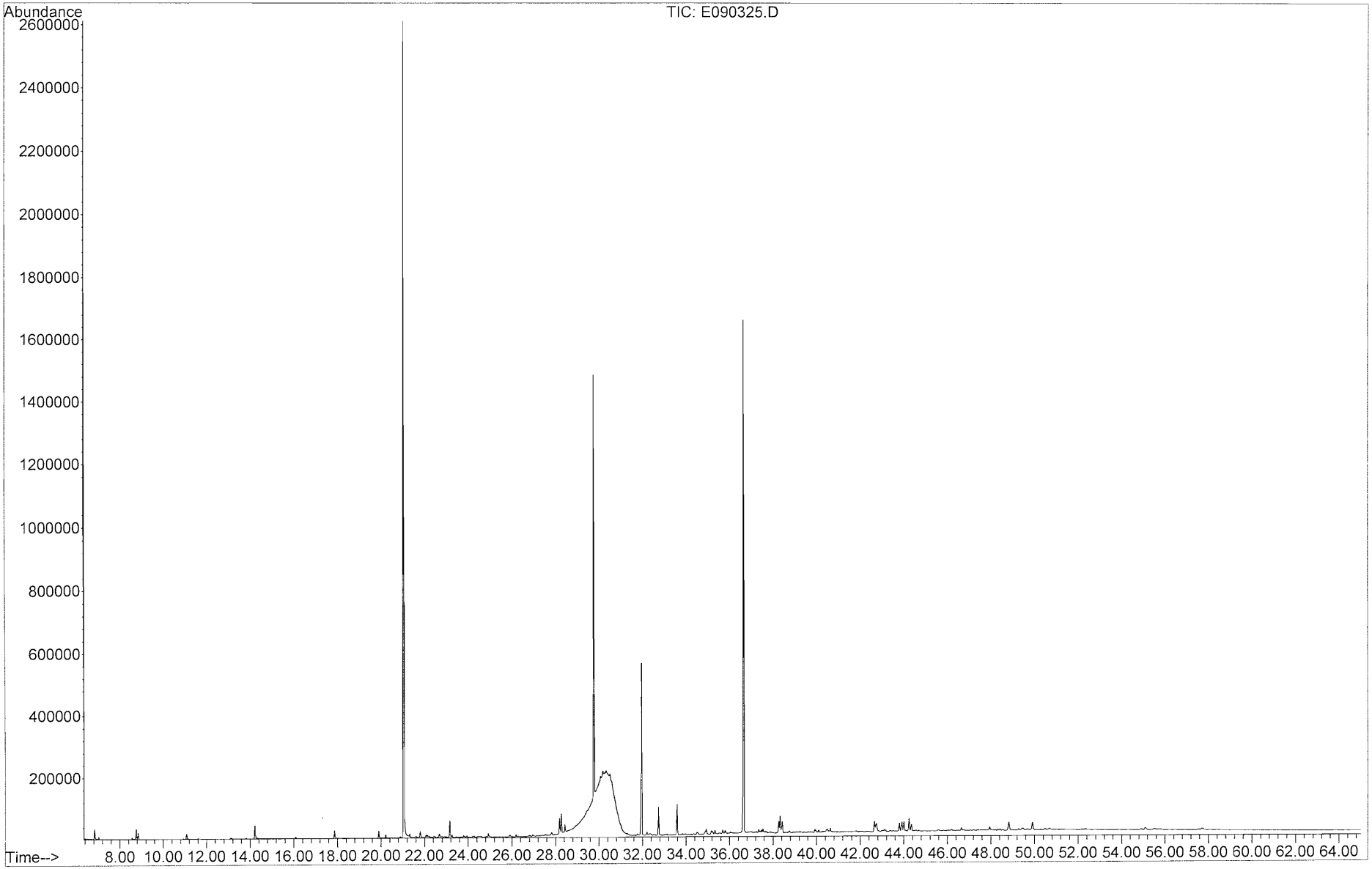
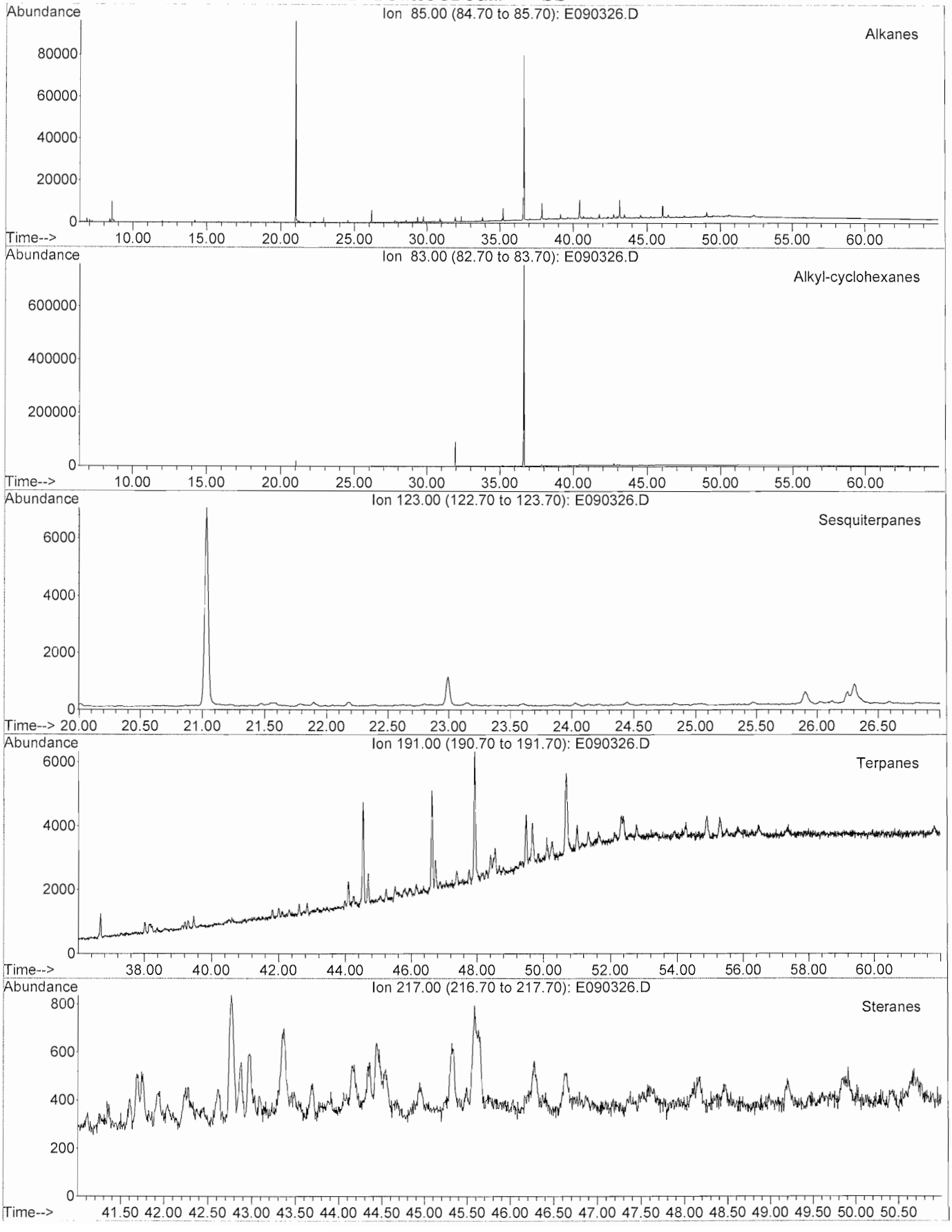
Sample Name: TT100819-15
Misc Info: SD-101-02



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090326.D
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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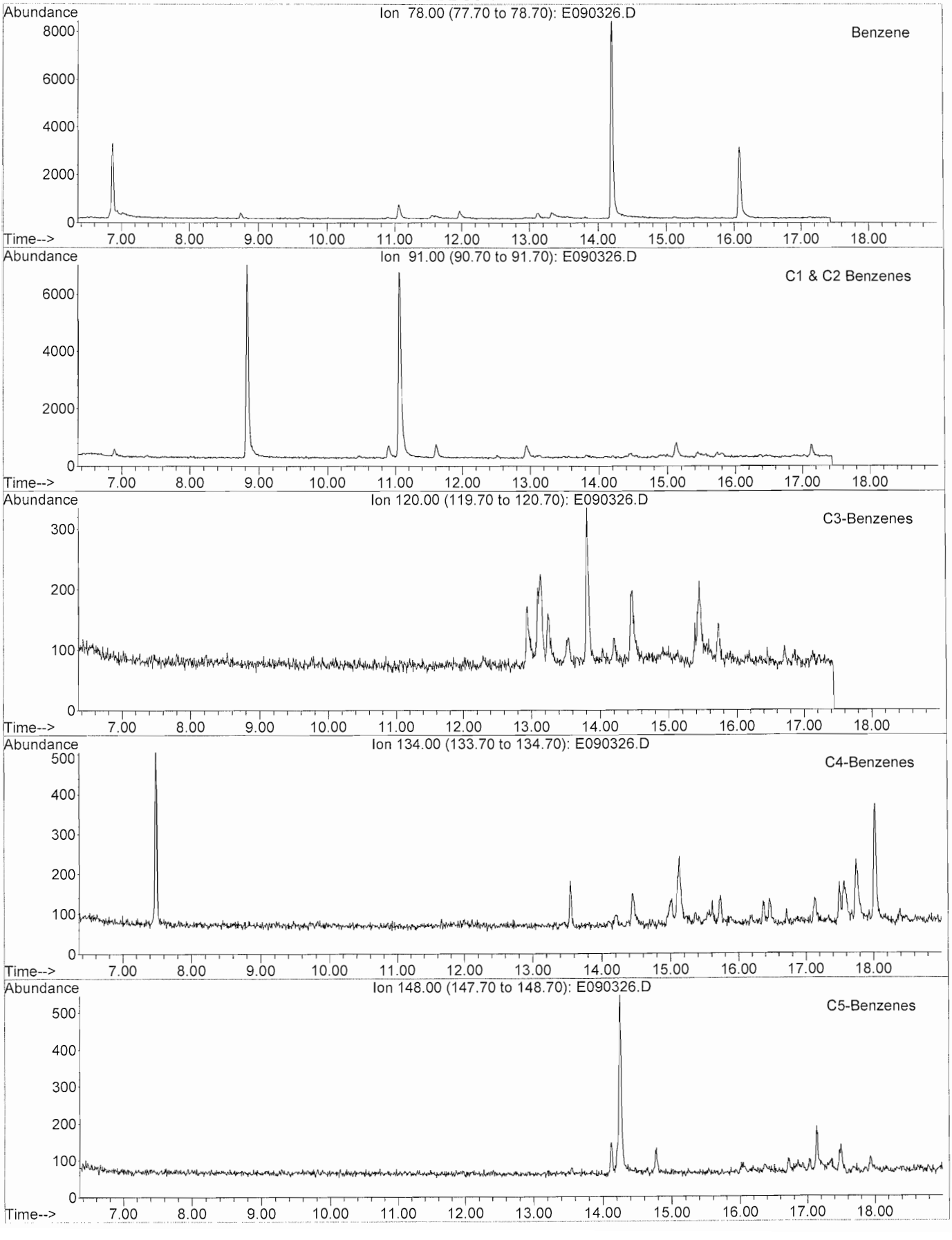
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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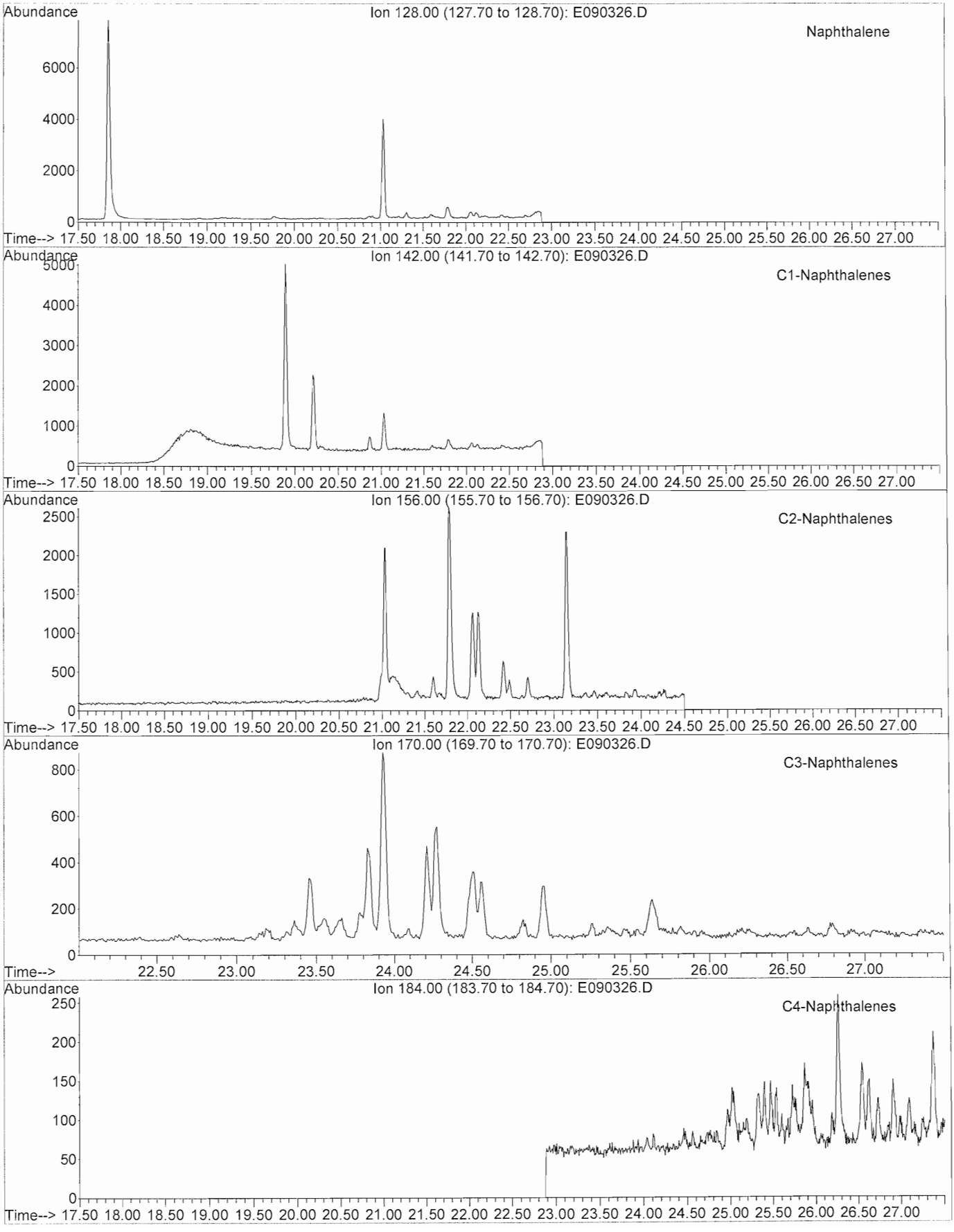
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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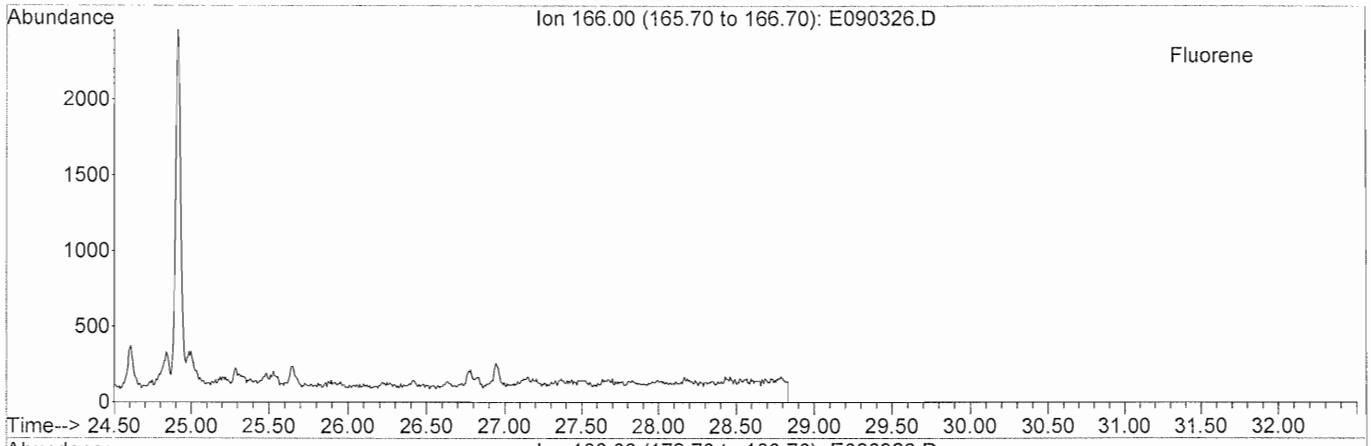
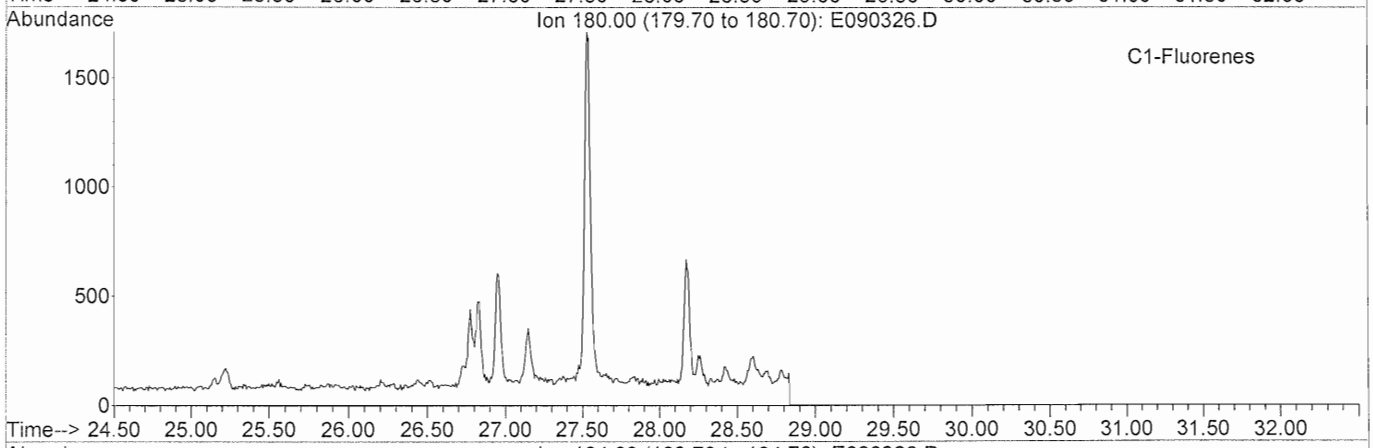
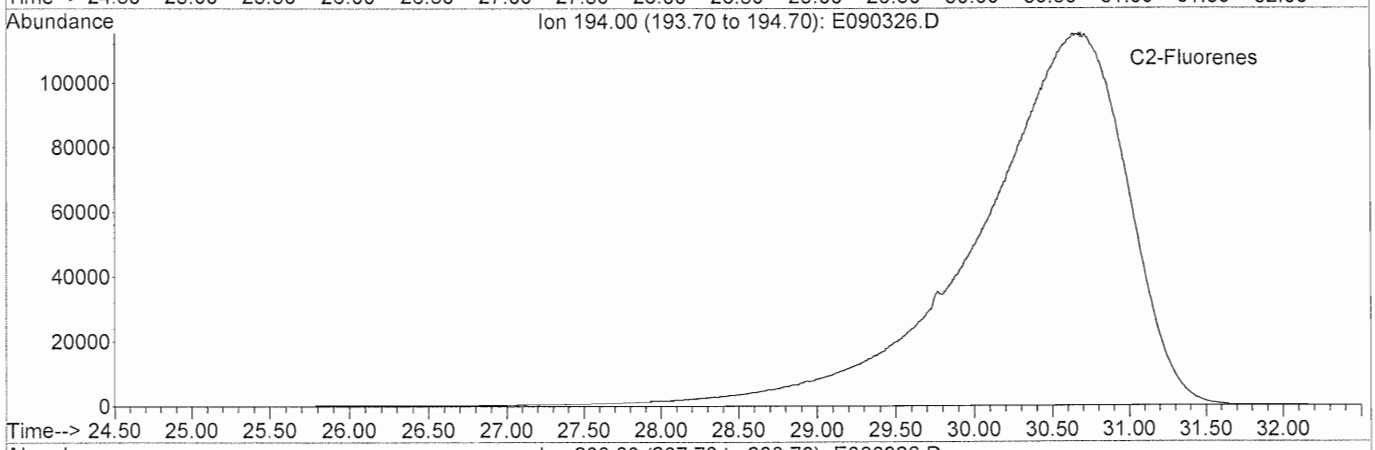
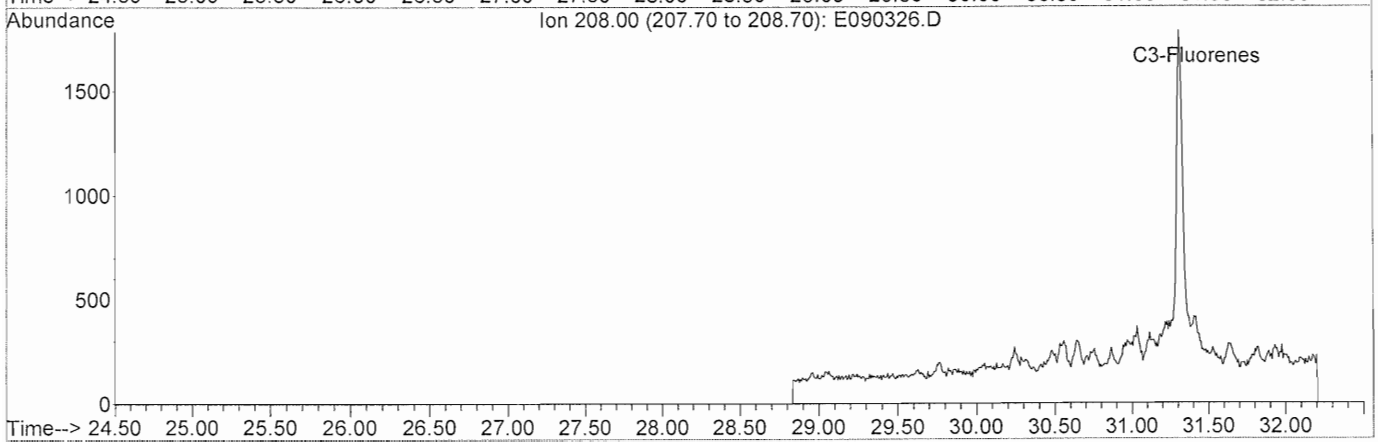
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS









META Environmental, Inc.

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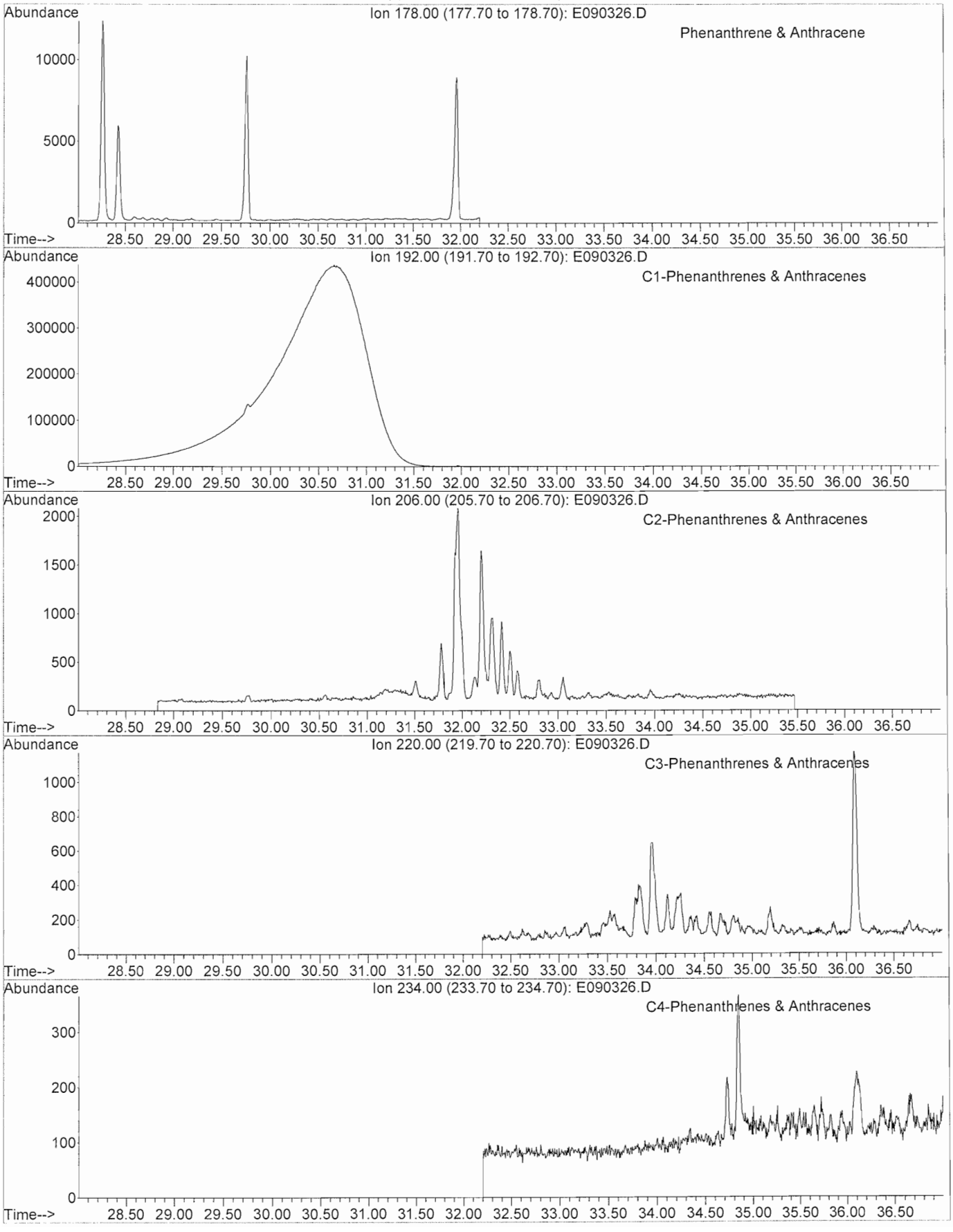
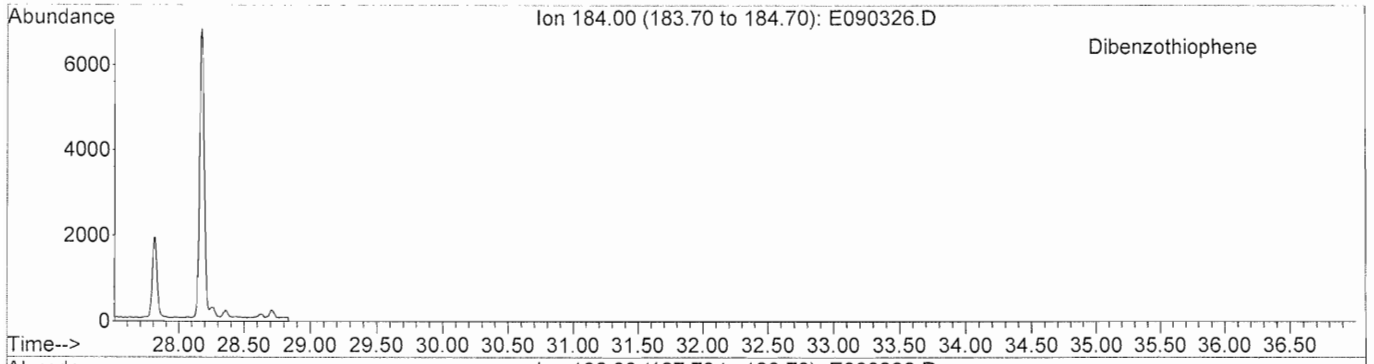
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS

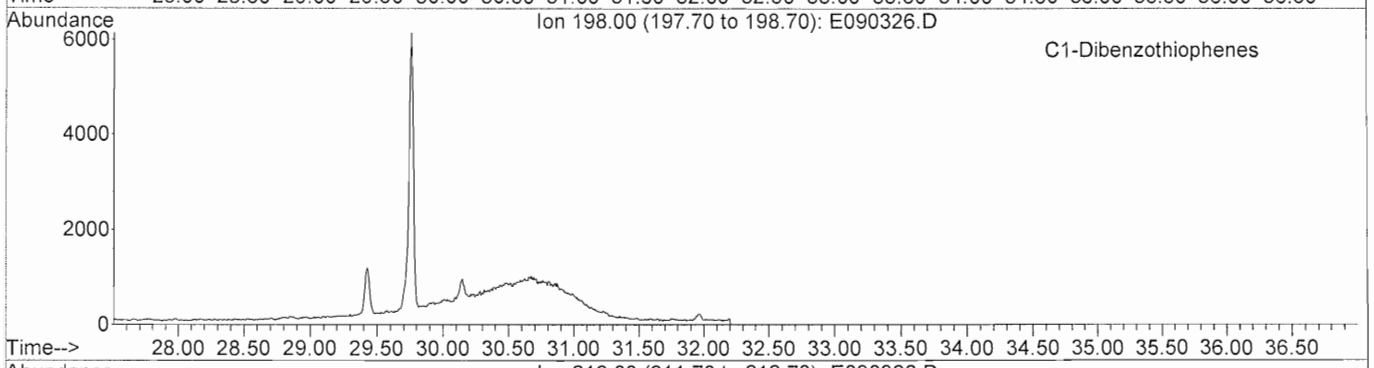


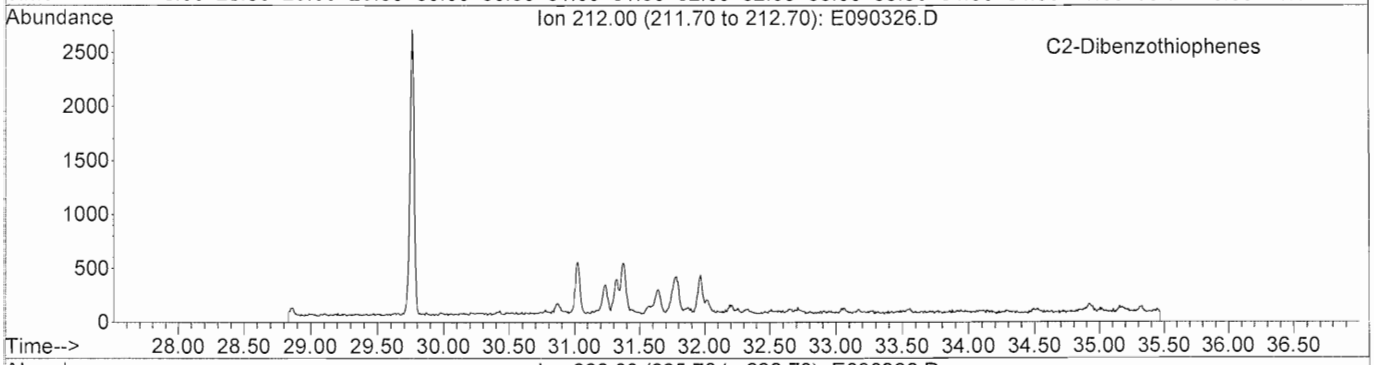
META Environmental, Inc.

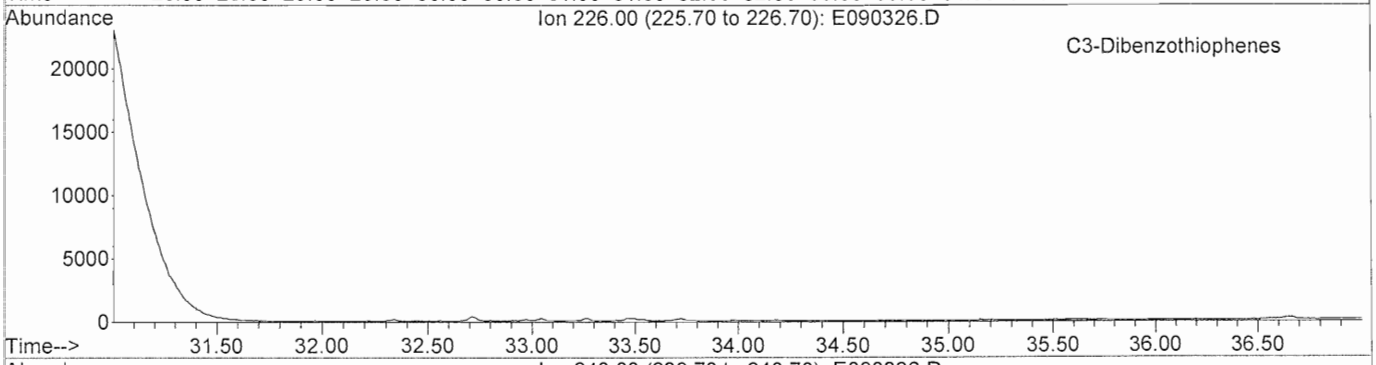
GC/MS EXTRACTED ION CHROMATOGRAM

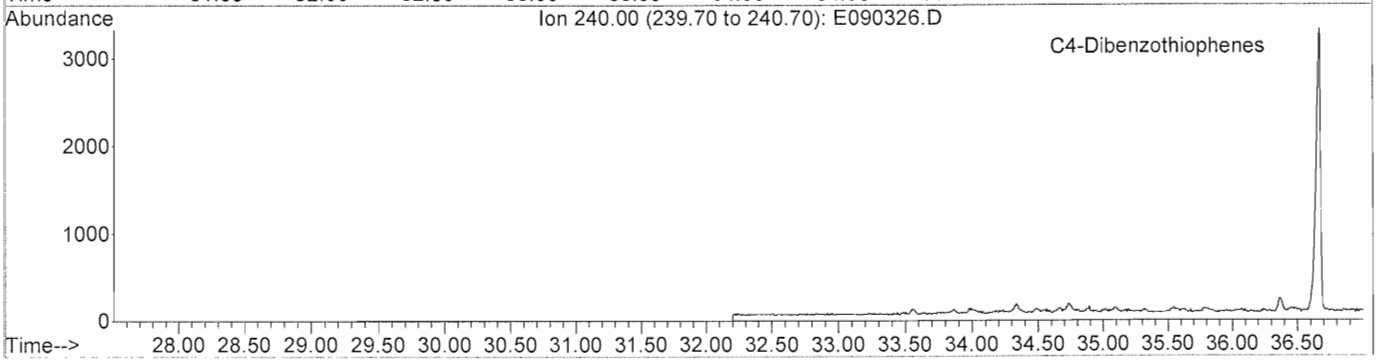
File: J:\1\DATA\E100903\E090326.D
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS







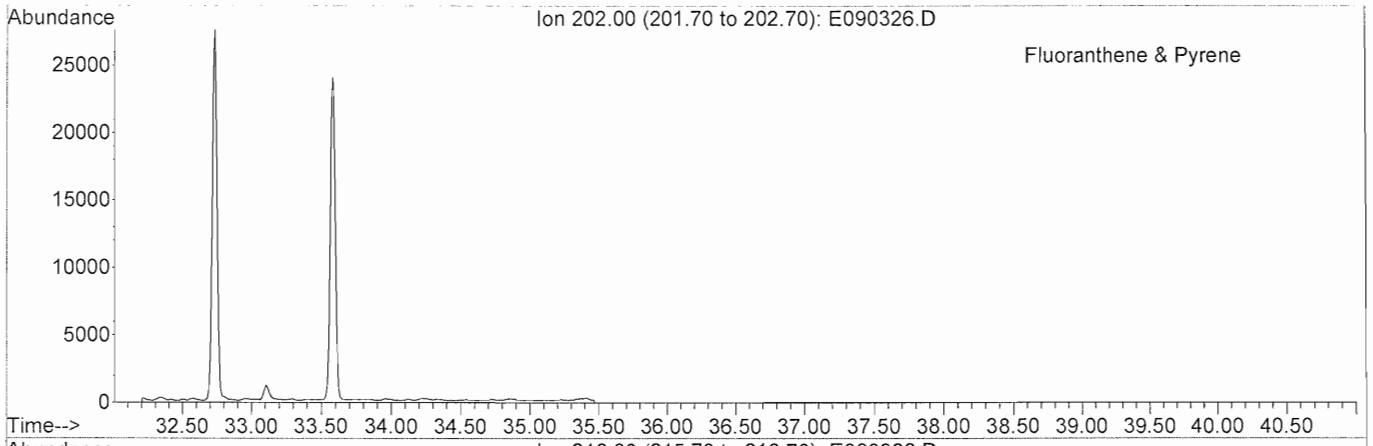


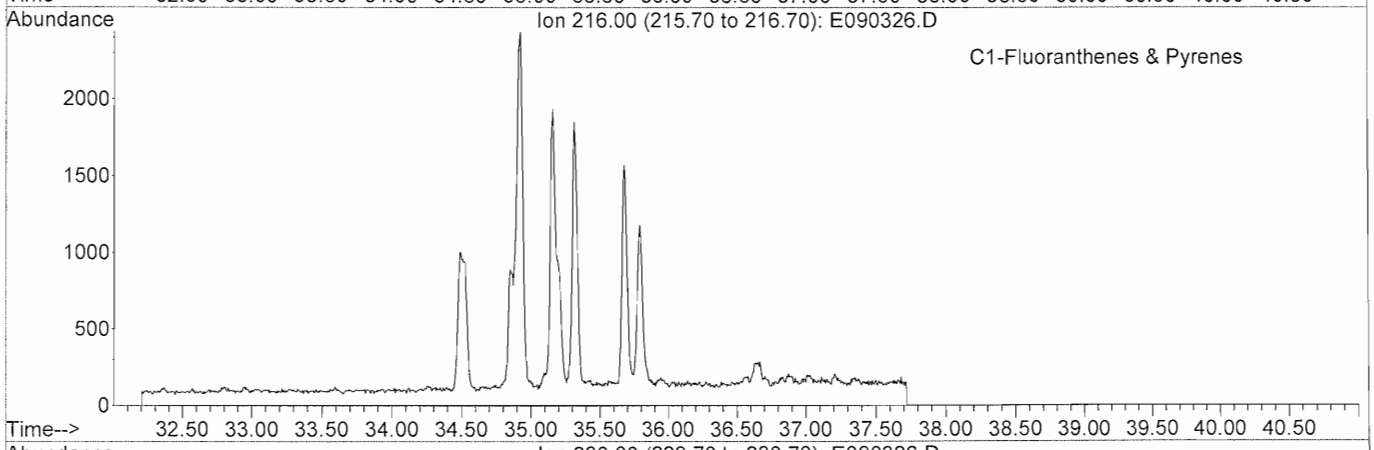


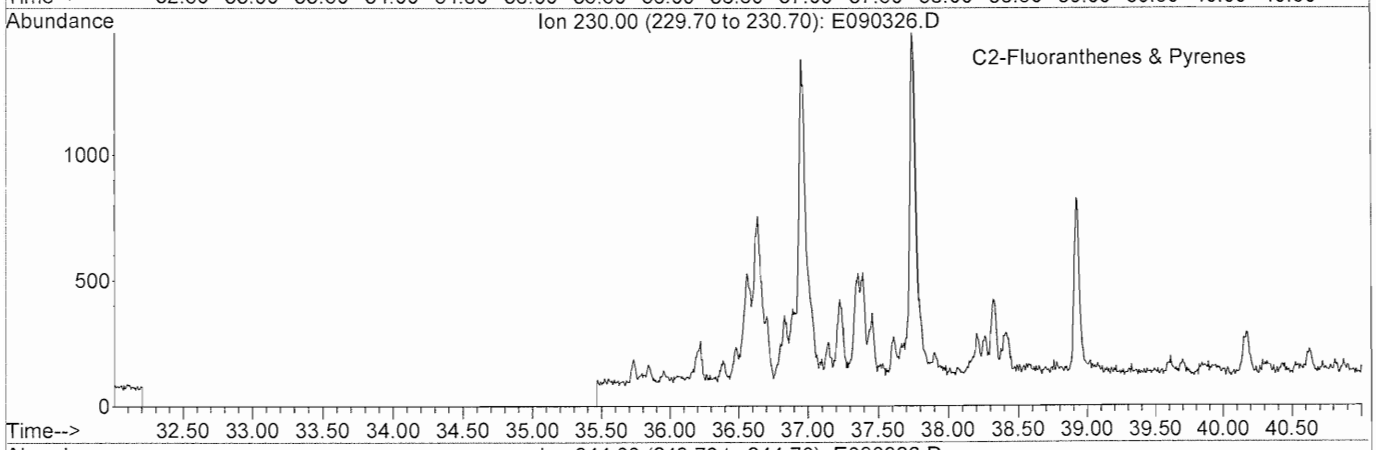
META Environmental, Inc.

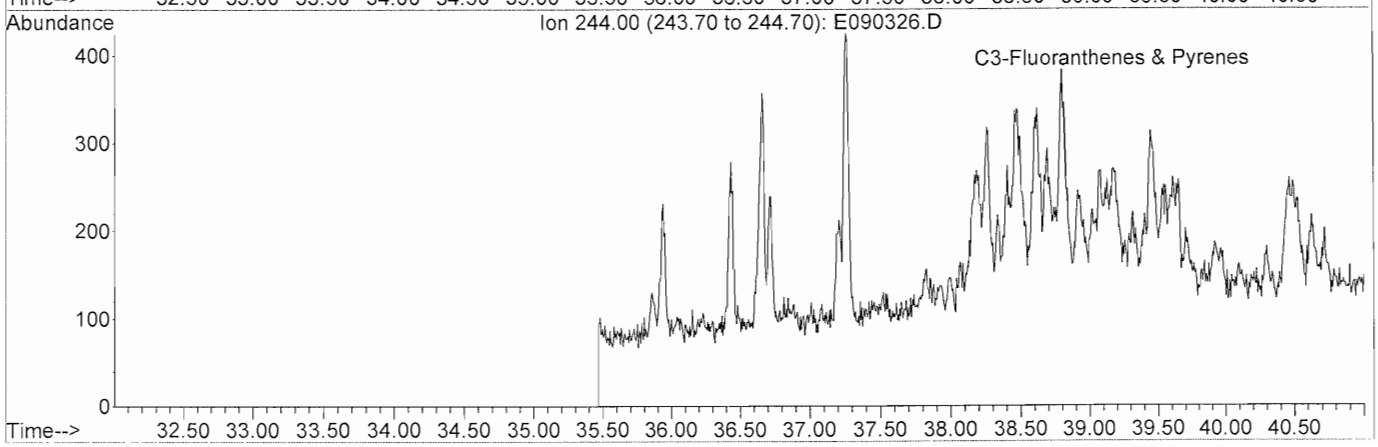
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090326.D
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS





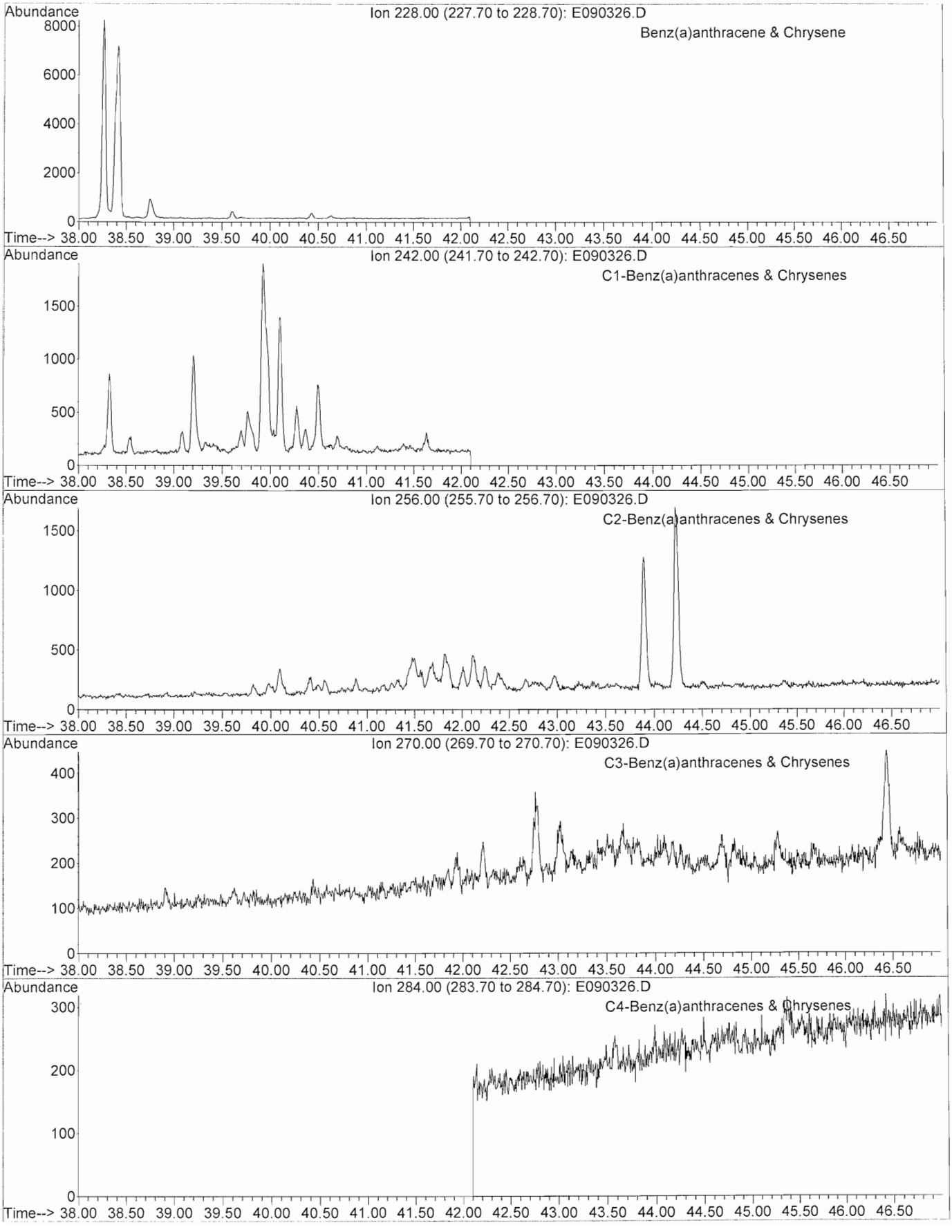




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

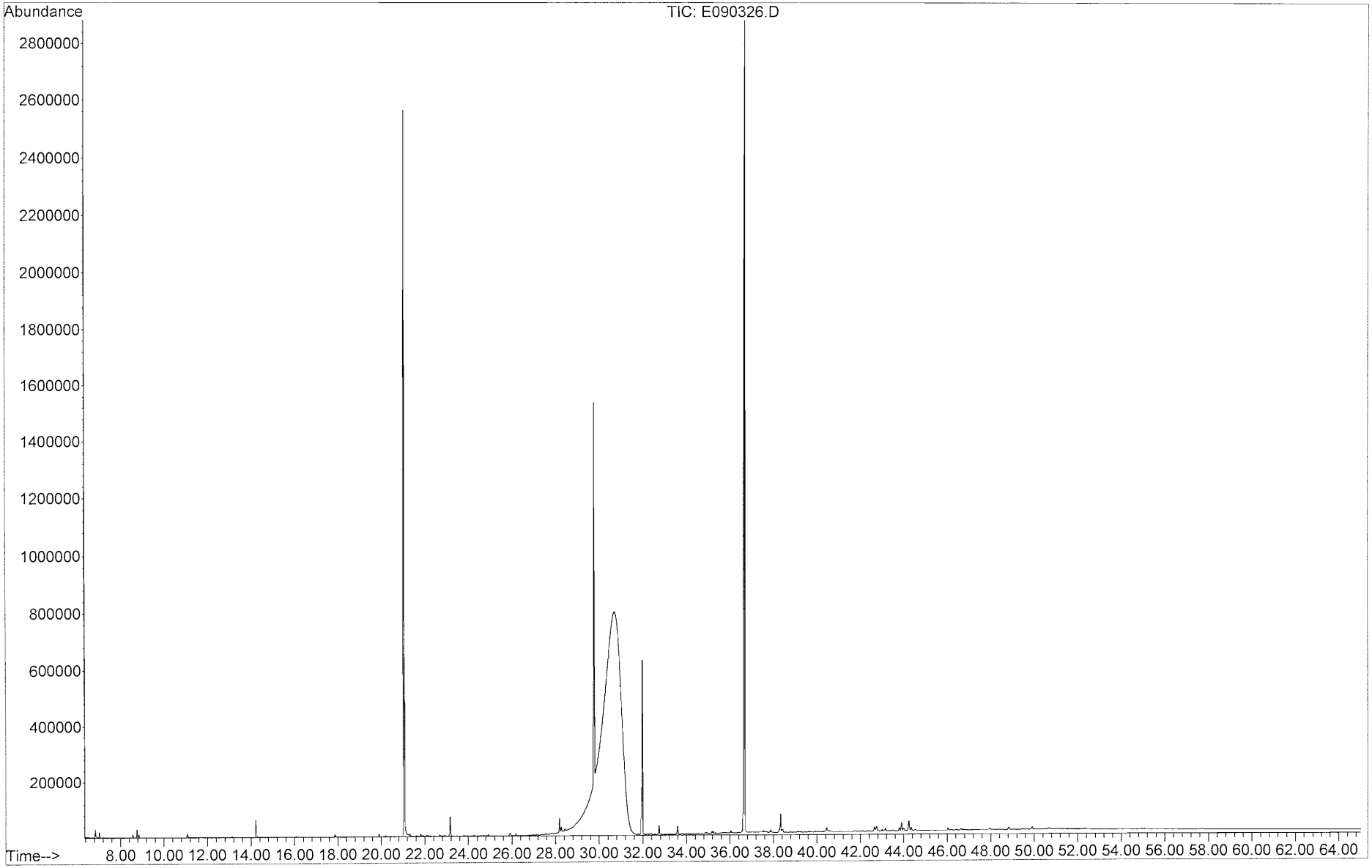
File: J:\1\DATA\E100903\E090326.D
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

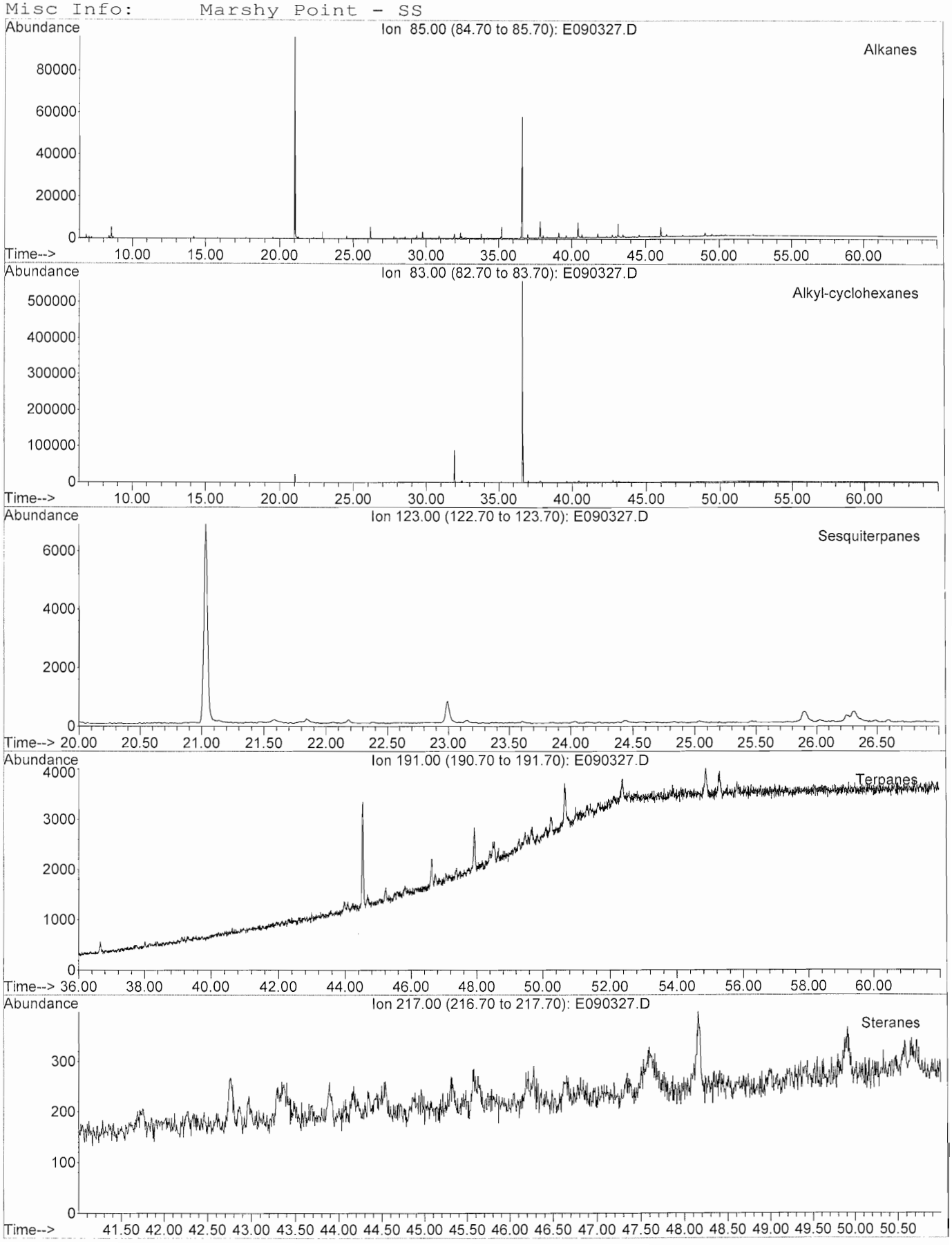
File: J:\1\DATA\E100903\E090326.D
Date Acquired: 4 Sep 2010 11:07 pm
Sample Name: TT100824-01
Misc Info: Middle River Downstream - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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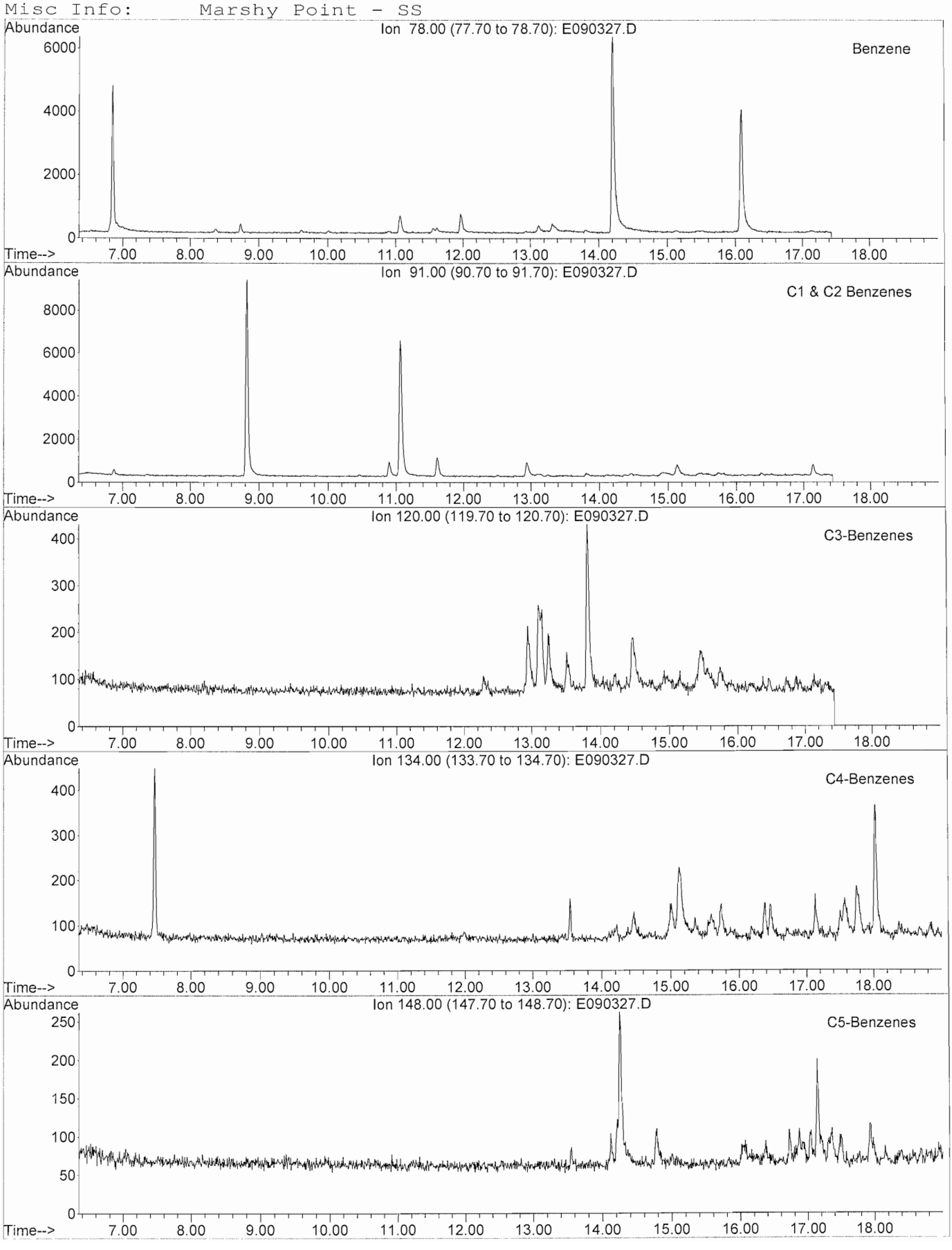
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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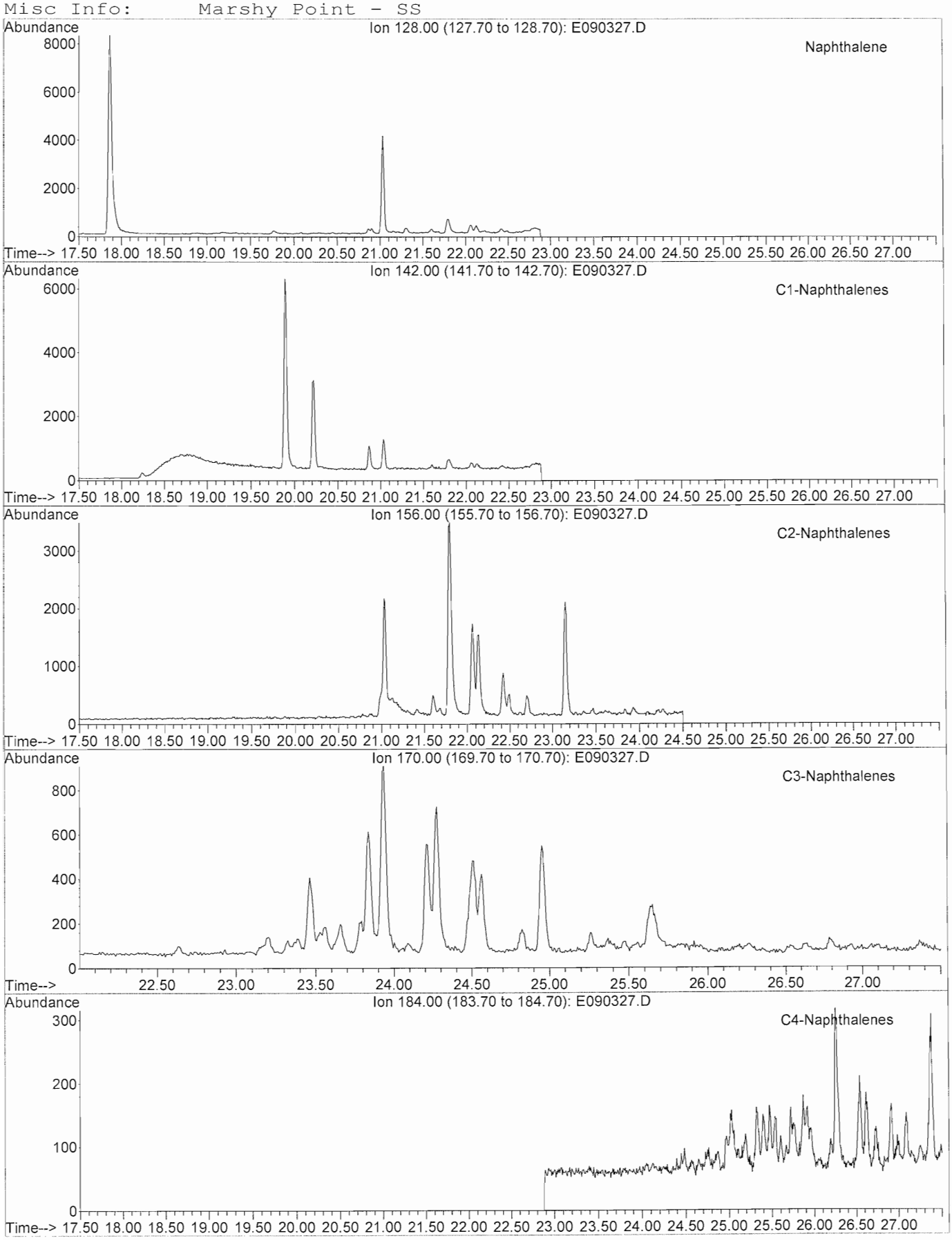
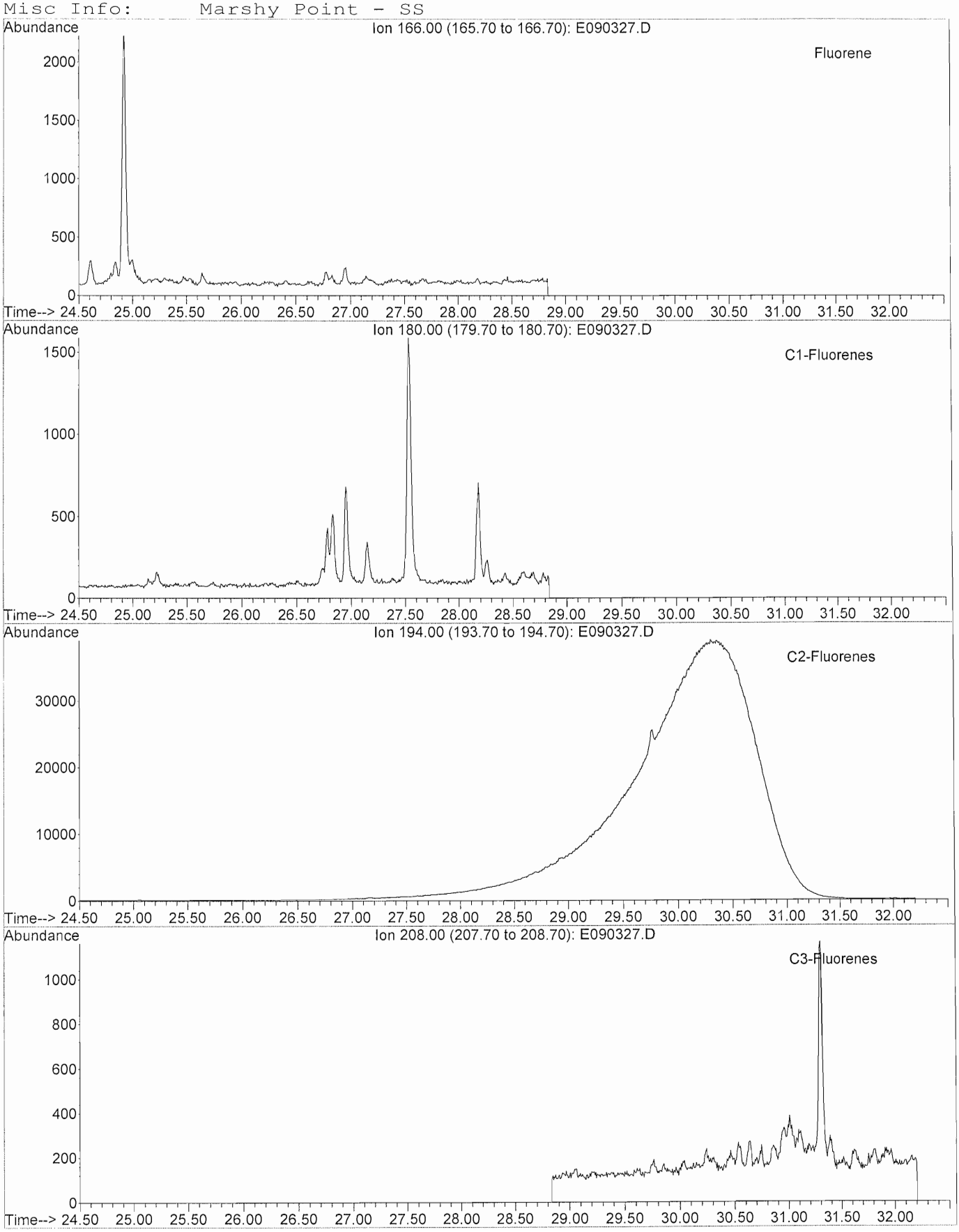
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

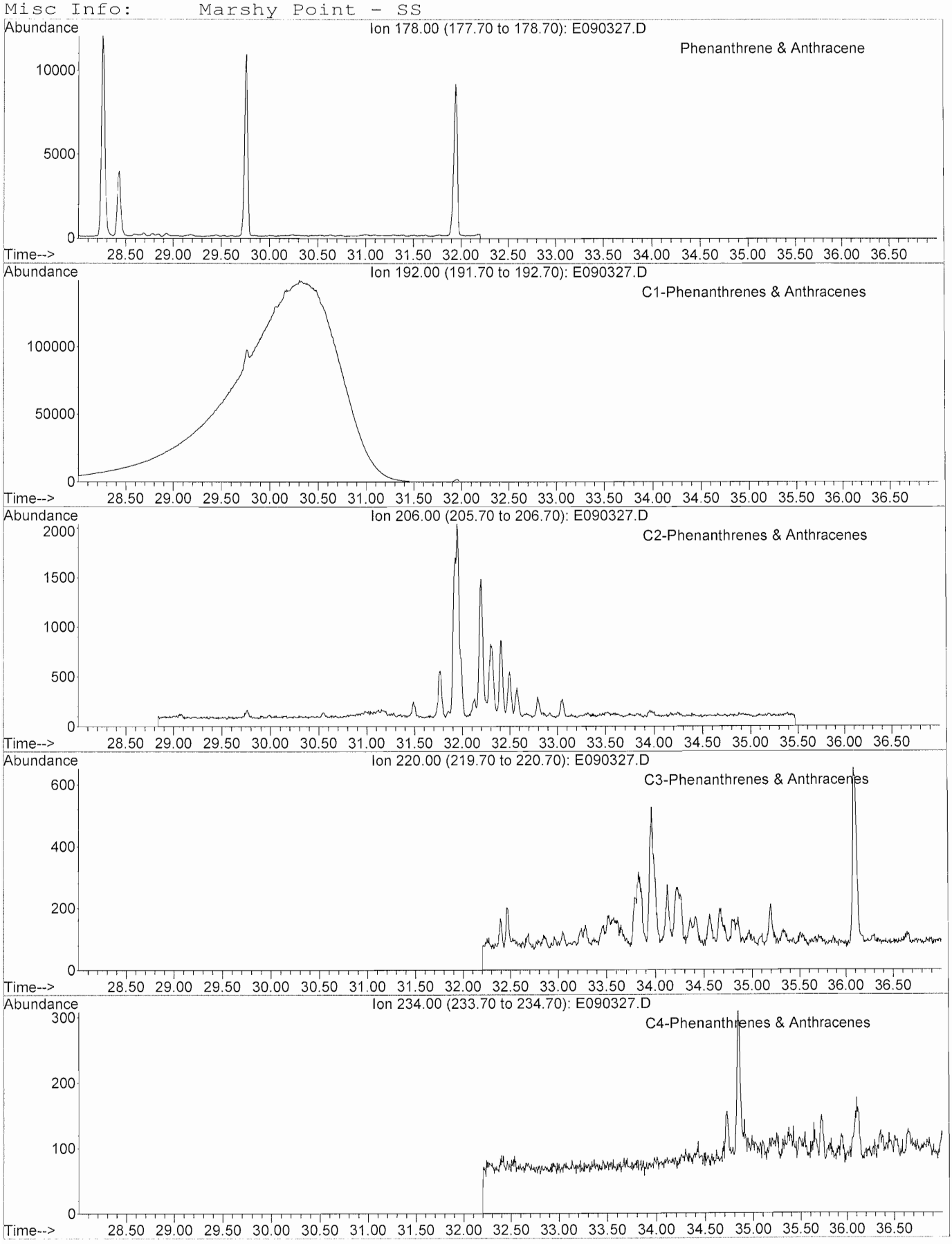
File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

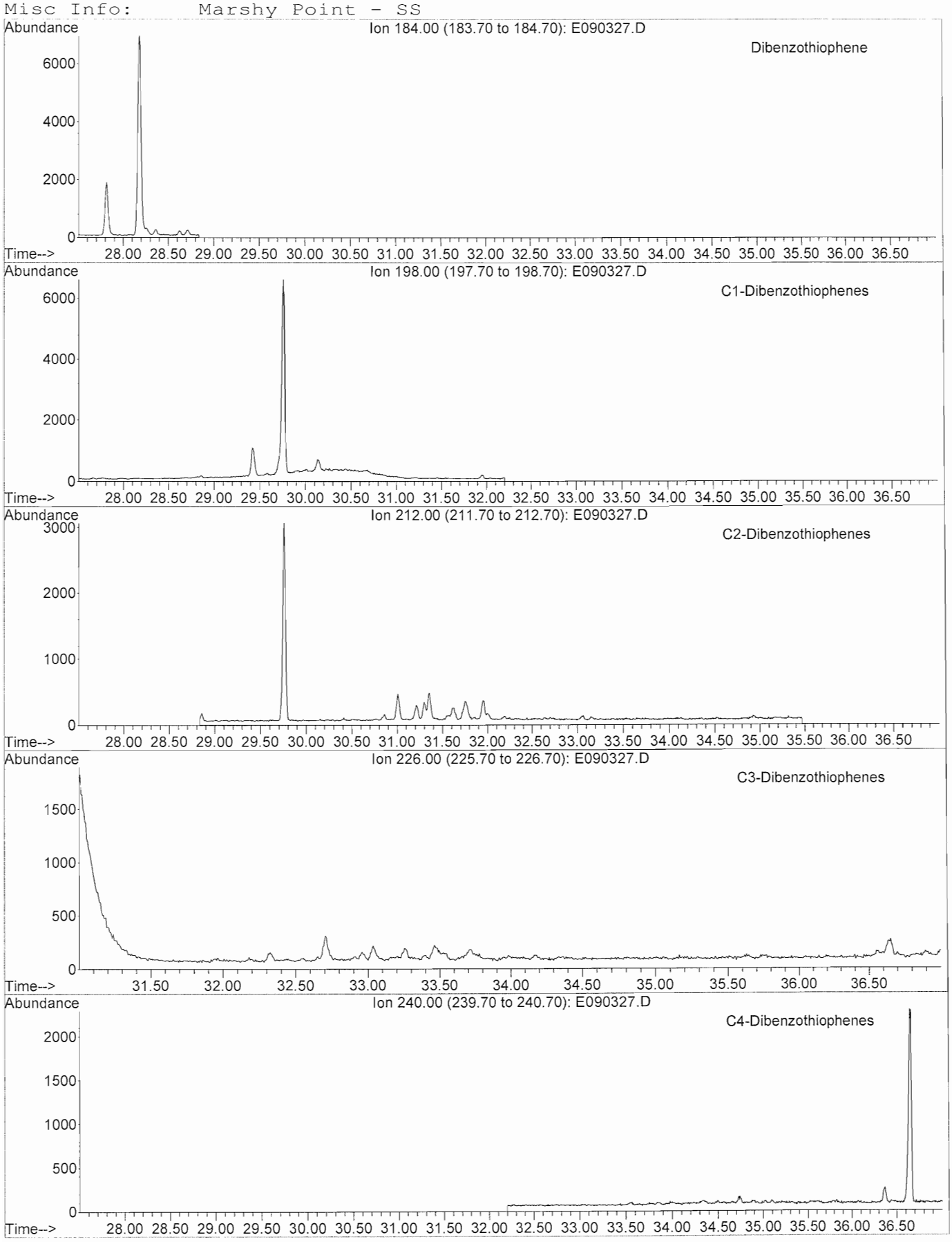
File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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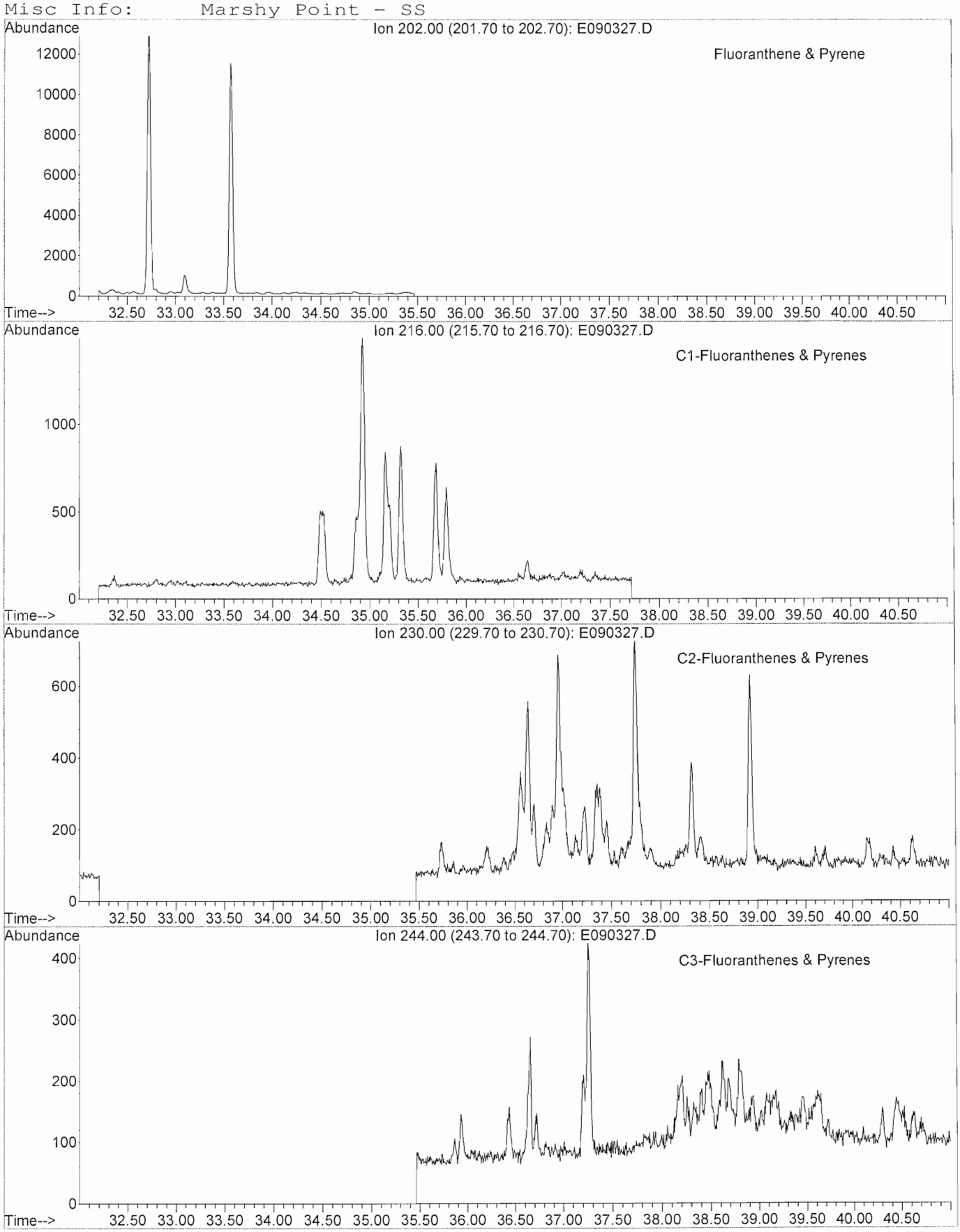
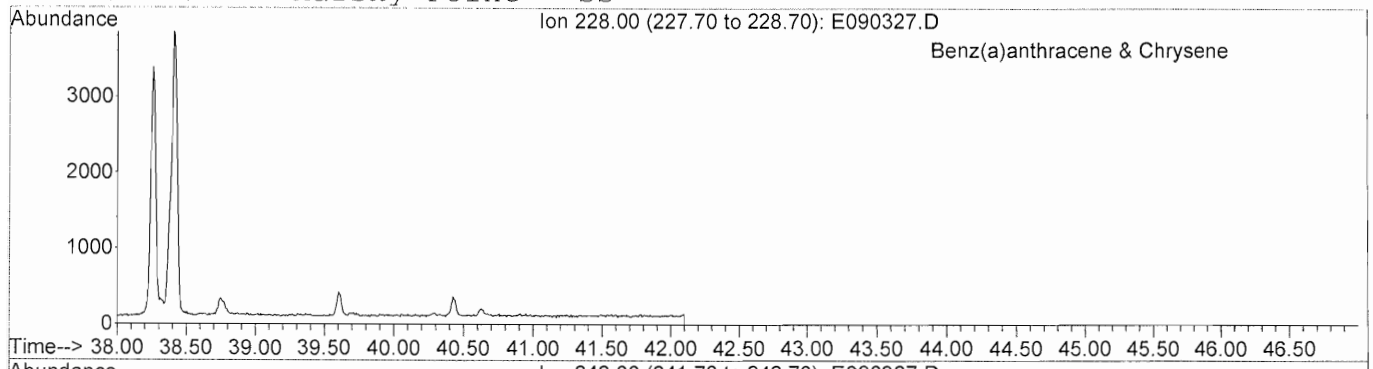
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS

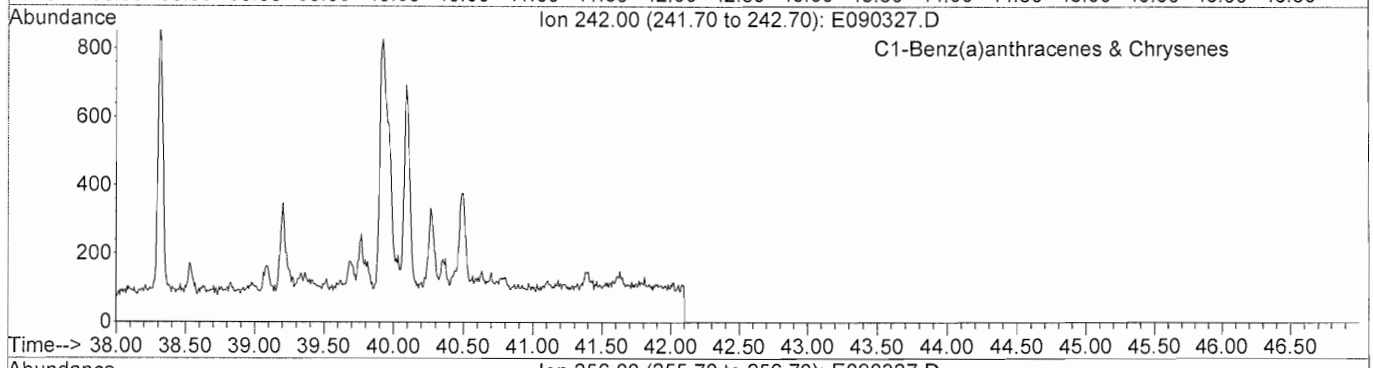


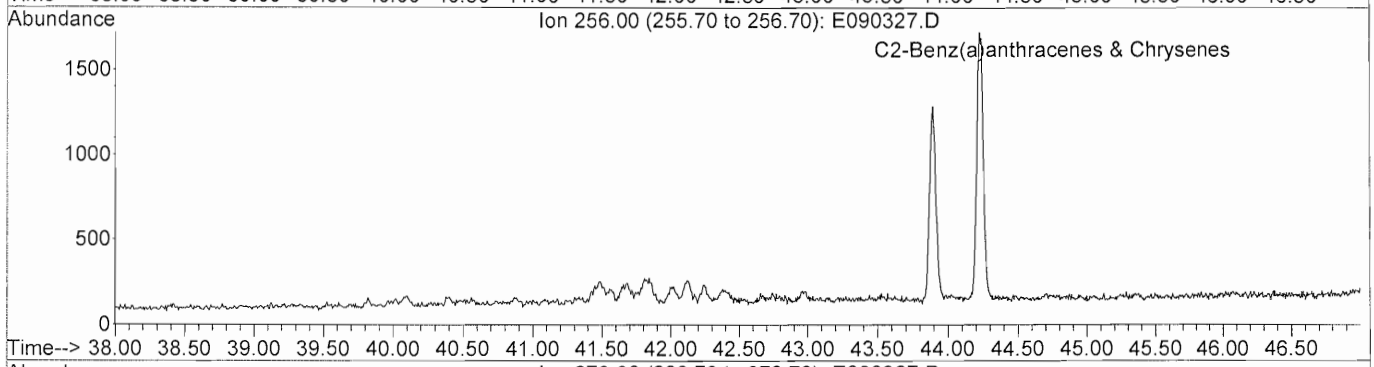
META Environmental, Inc.

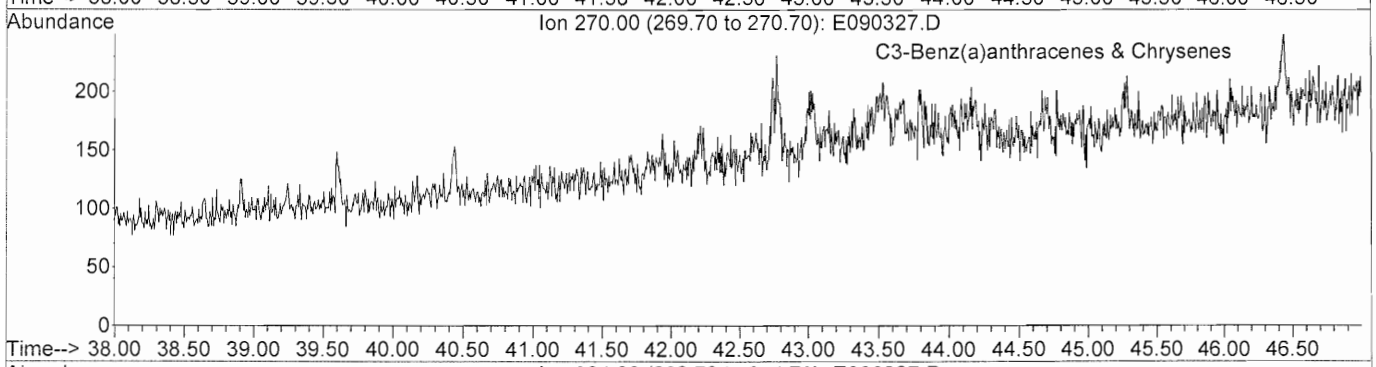
GC/MS EXTRACTED ION CHROMATOGRAM

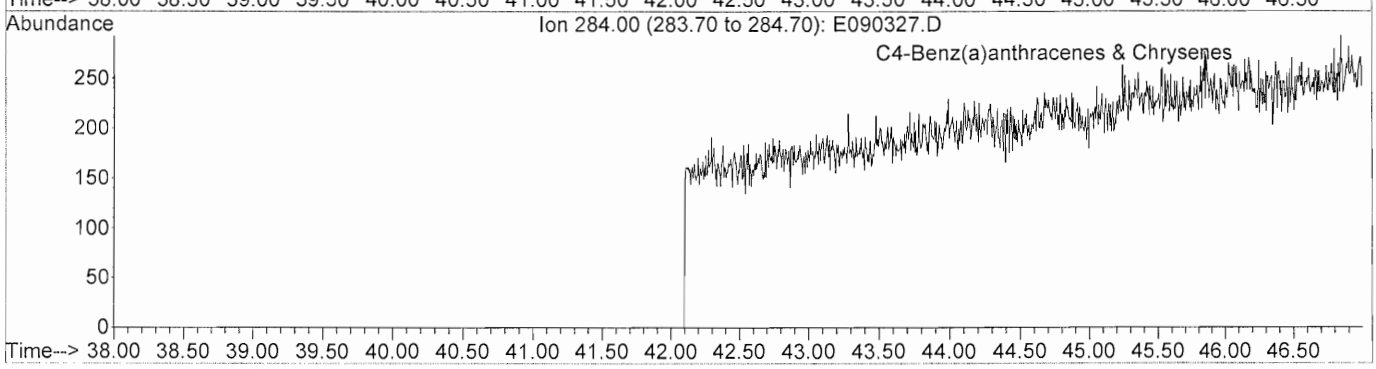
File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS







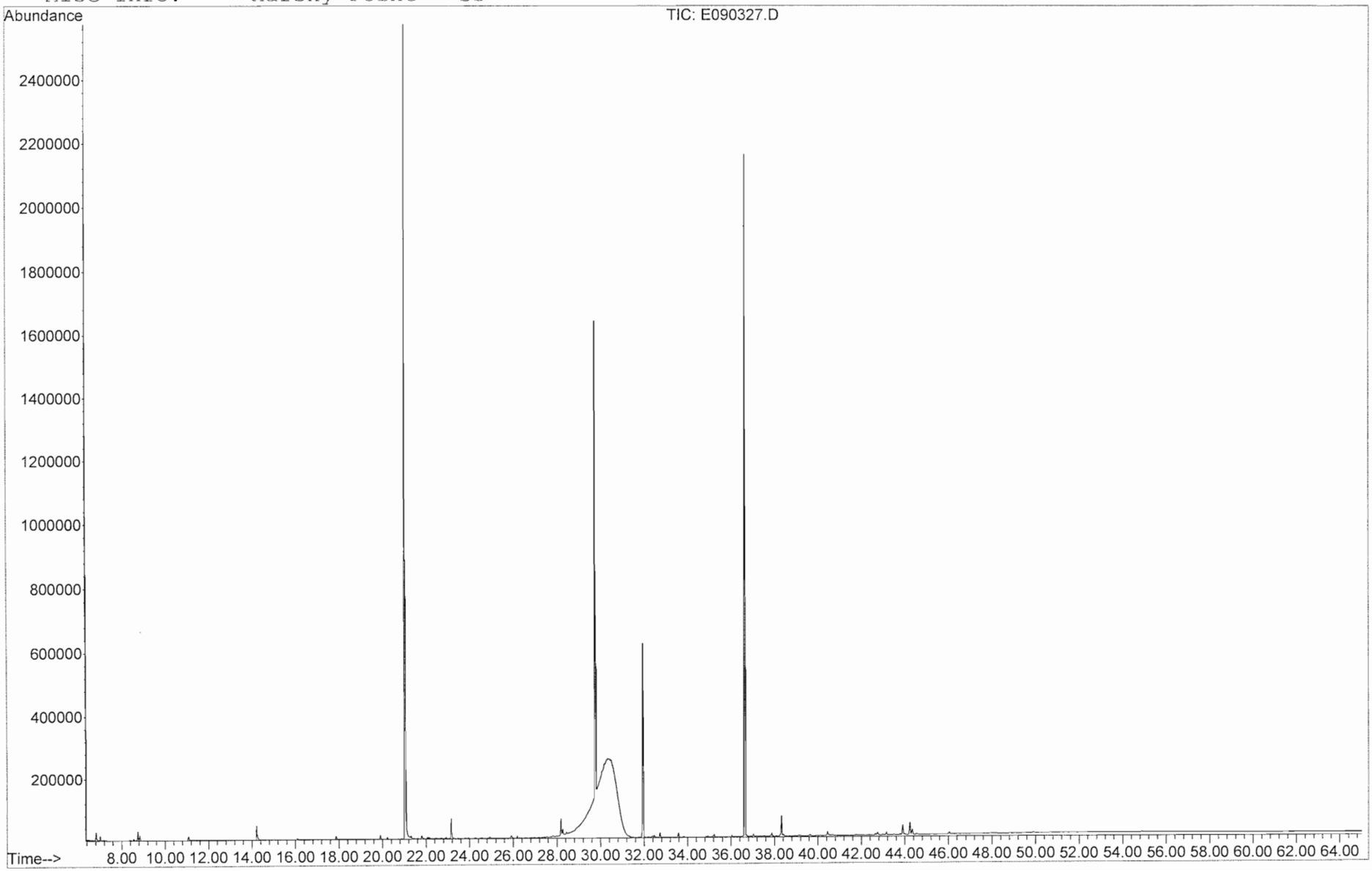




META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

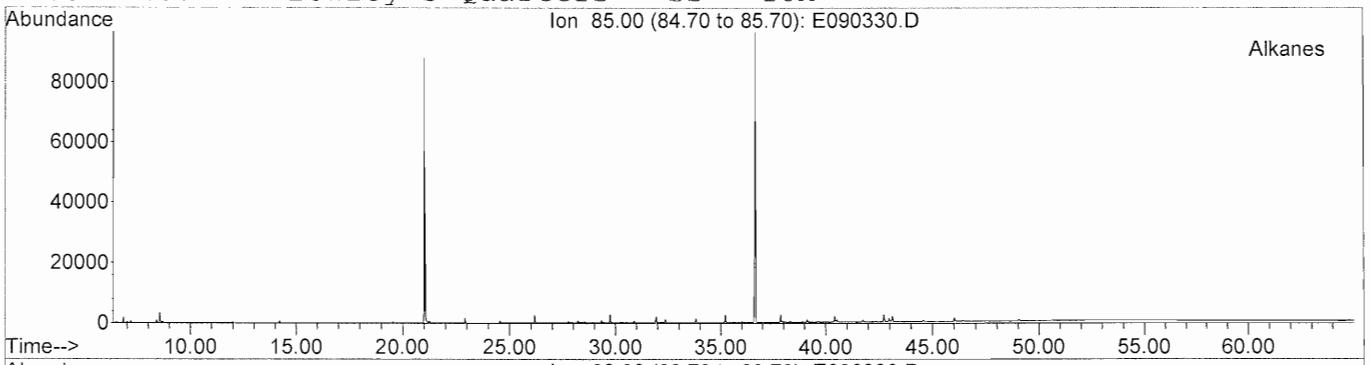
File: J:\1\DATA\E100903\E090327.D
Date Acquired: 5 Sep 2010 12:28 am
Sample Name: TT100824-02
Misc Info: Marshy Point - SS

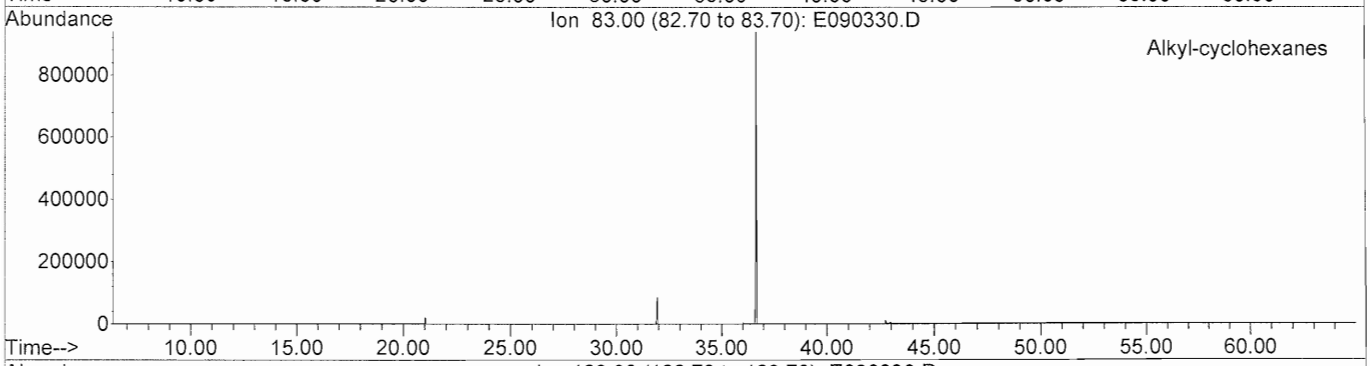


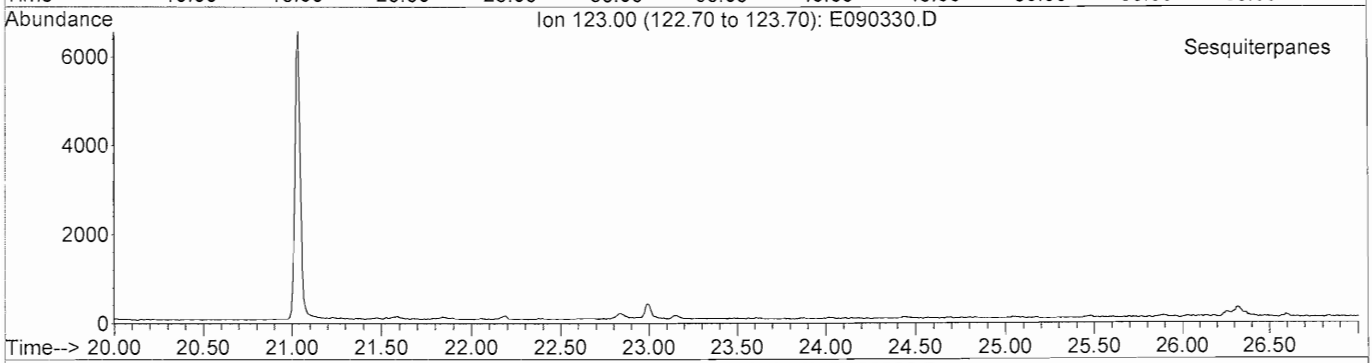
META Environmental, Inc.

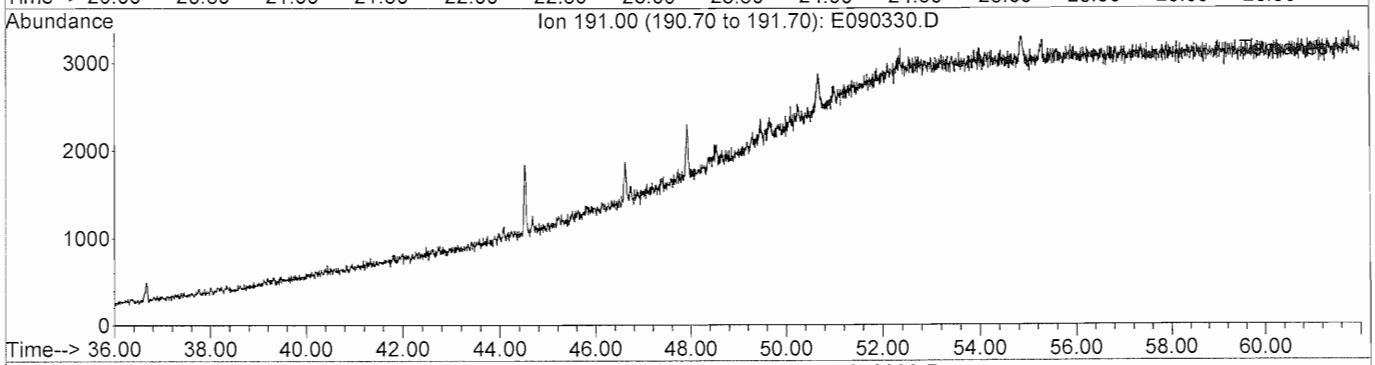
GC/MS EXTRACTED ION CHROMATOGRAM

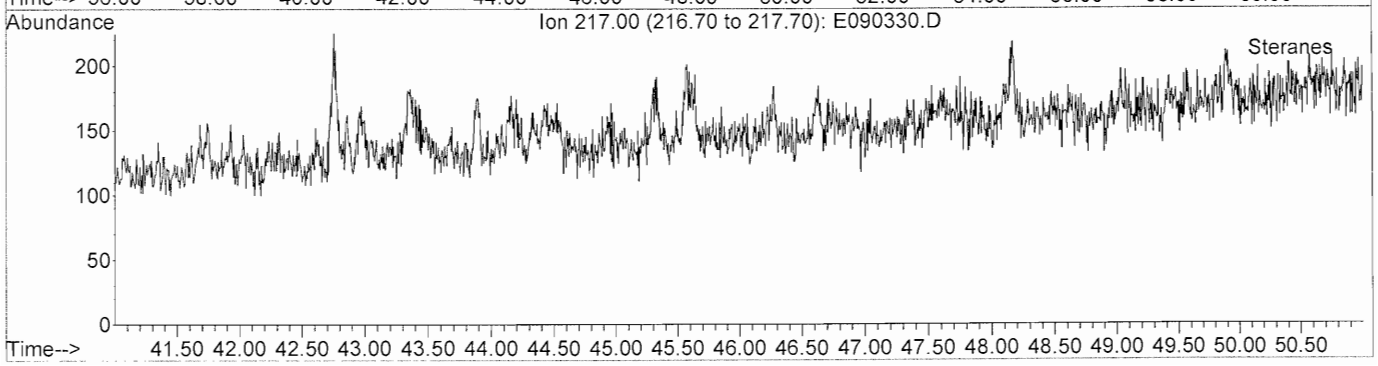
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X







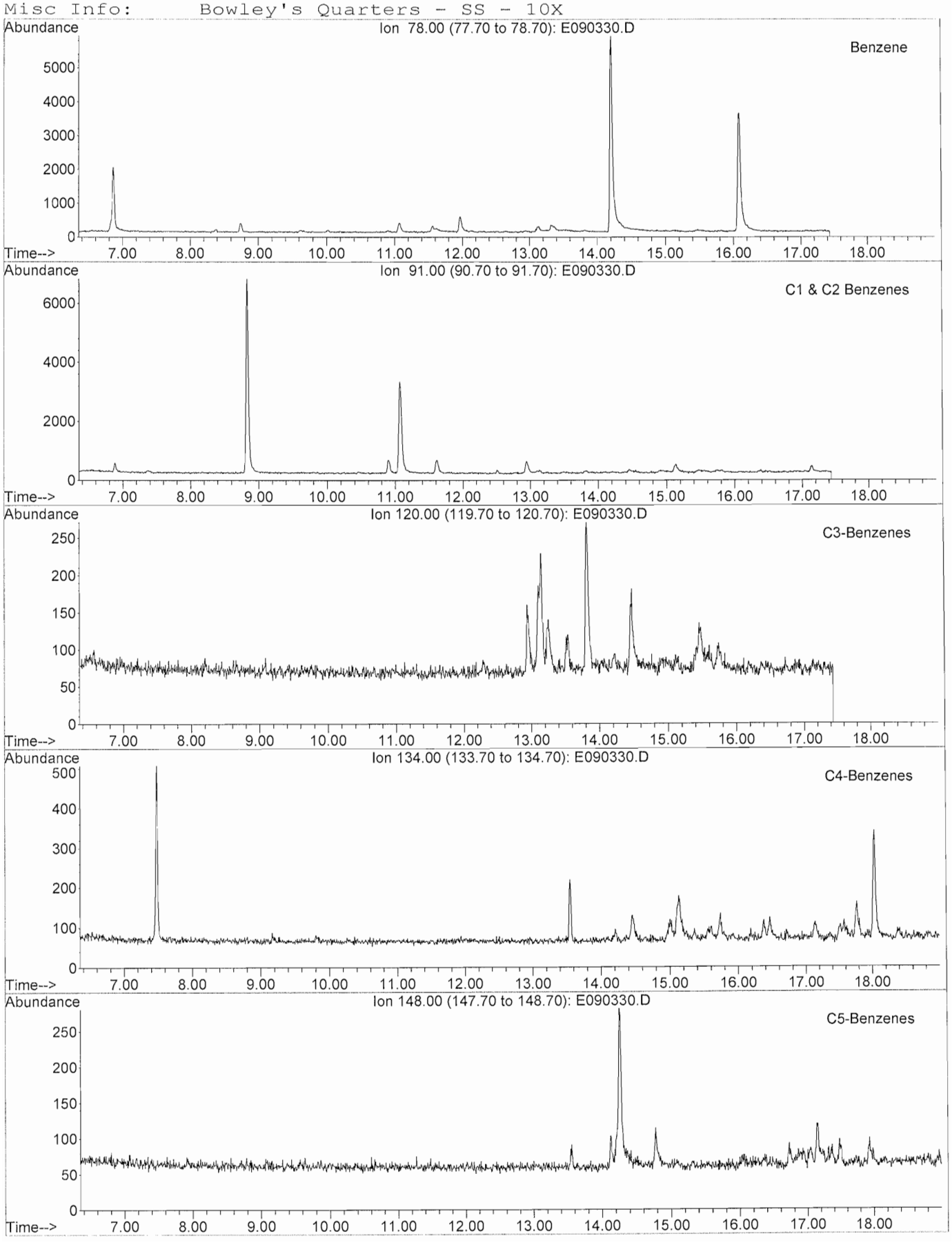




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

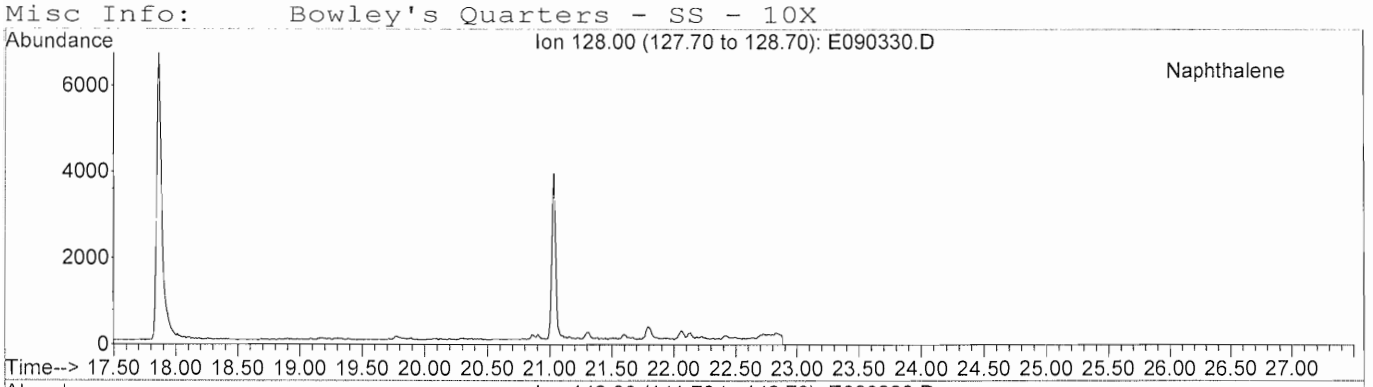
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X

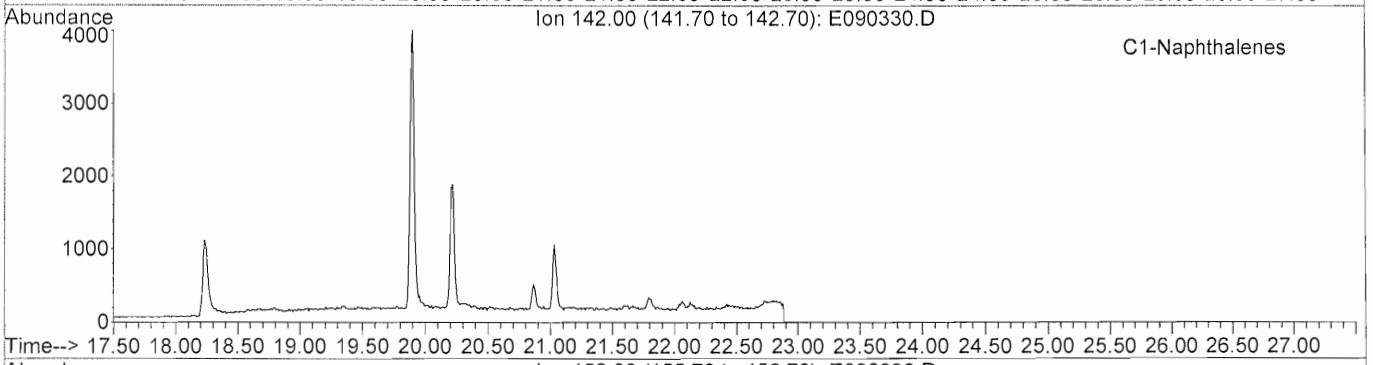


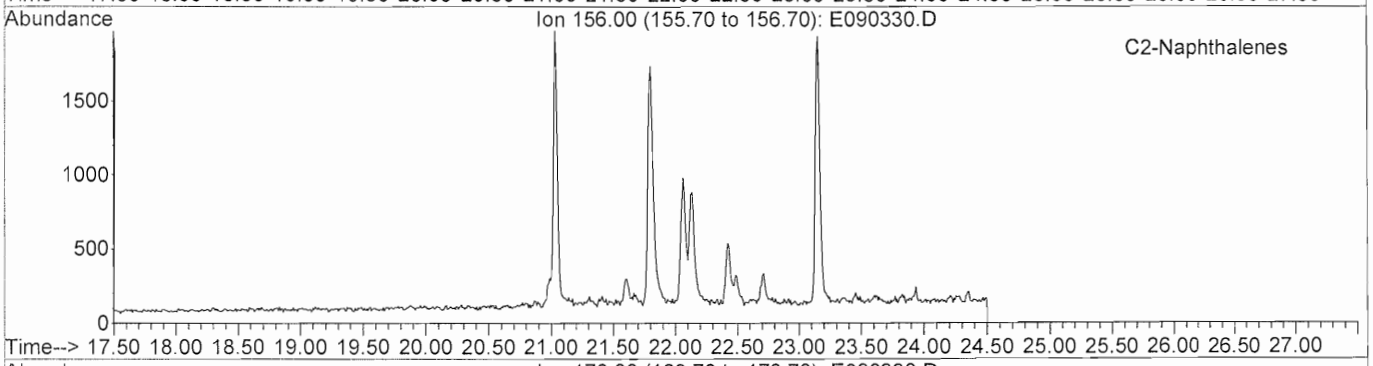
META Environmental, Inc.

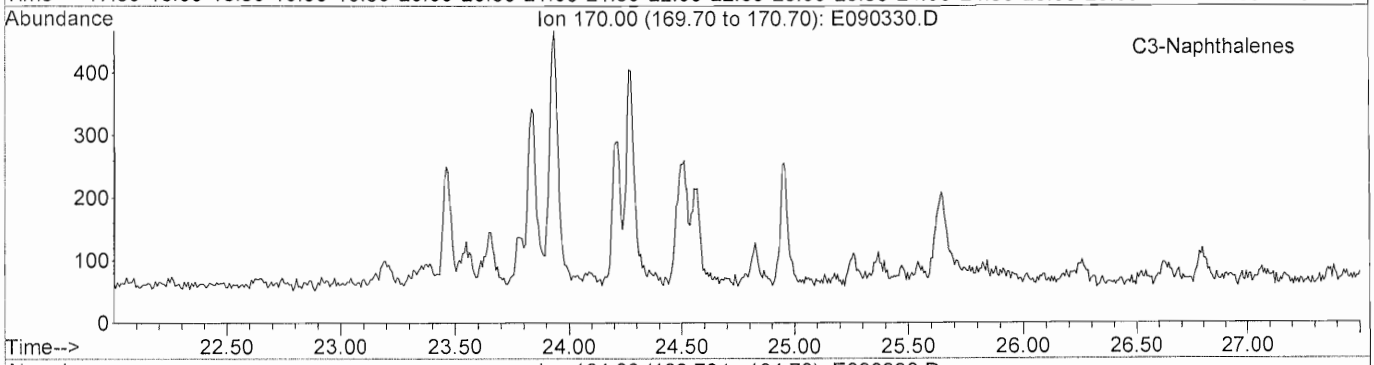
GC/MS EXTRACTED ION CHROMATOGRAM

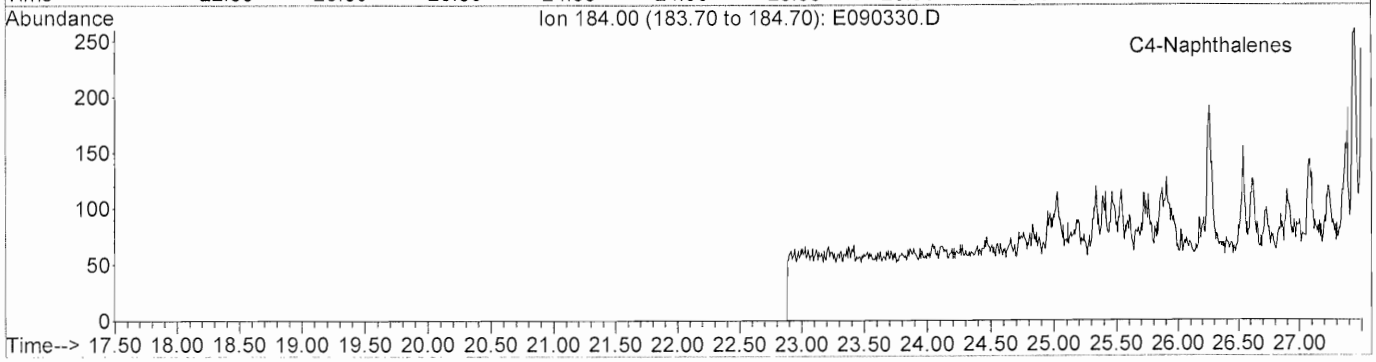
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X







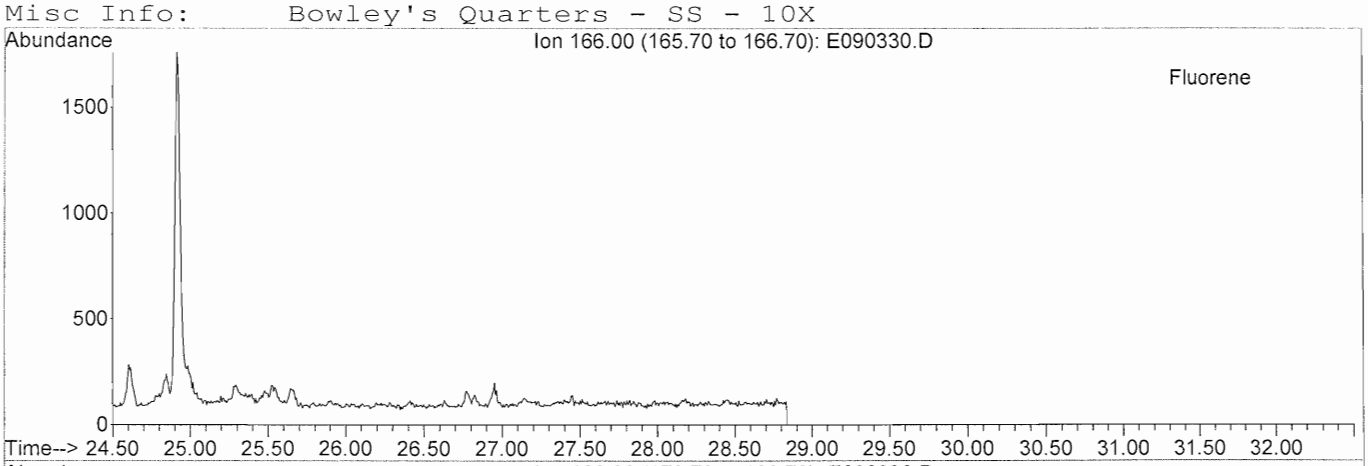


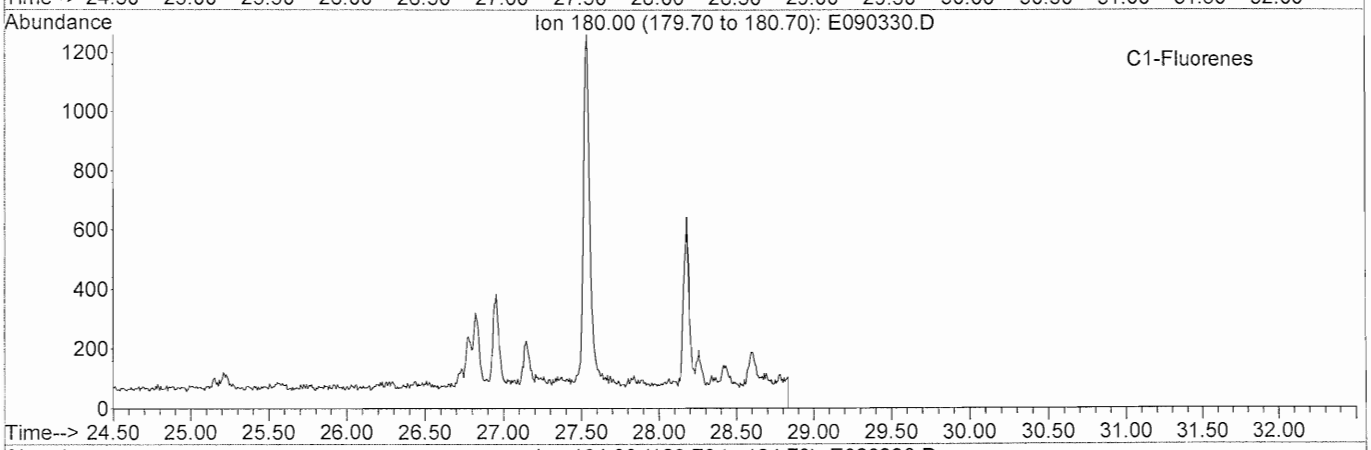


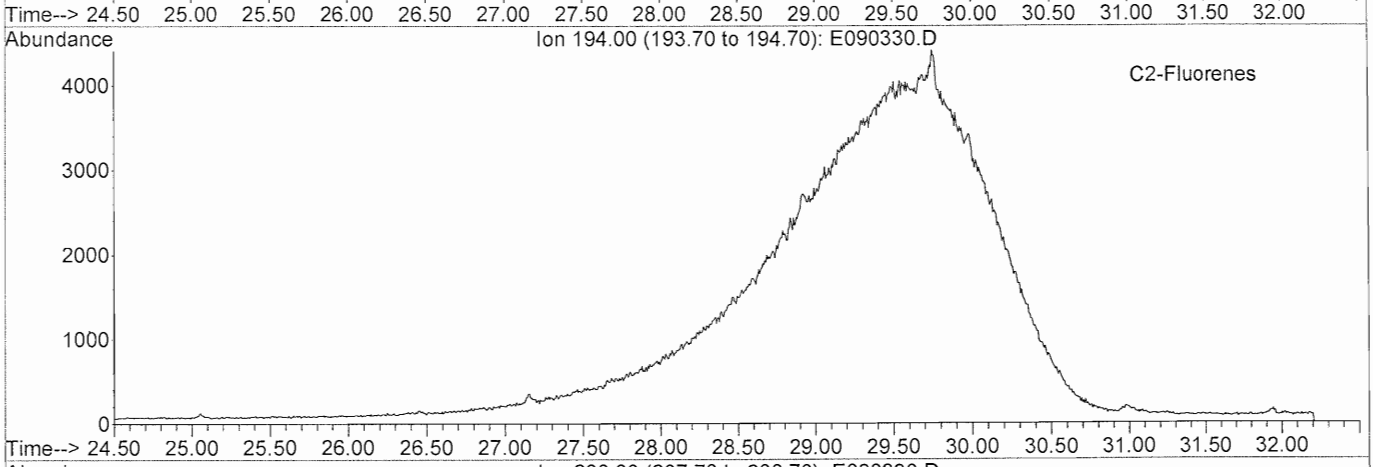
META Environmental, Inc.

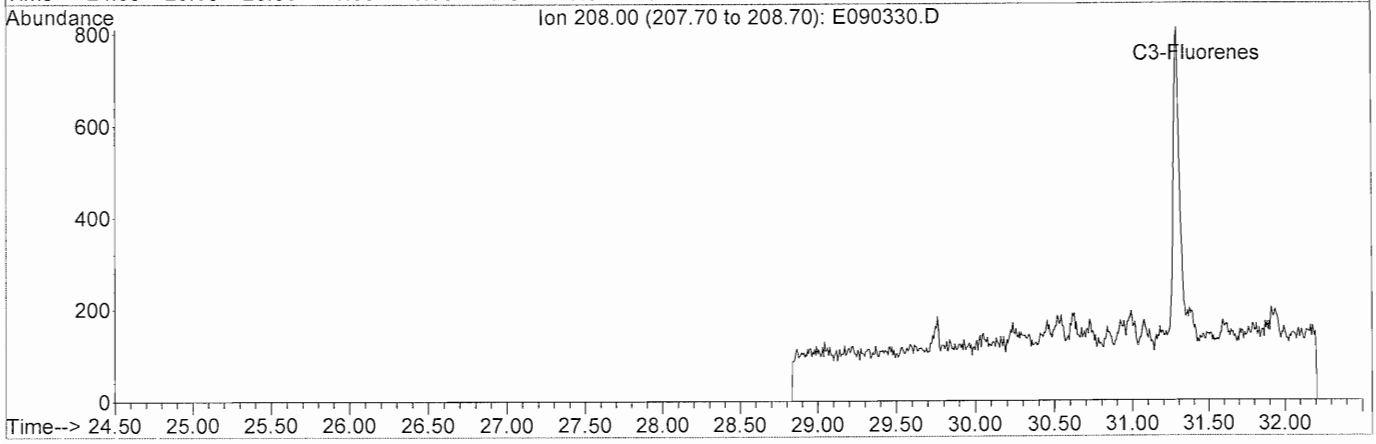
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X





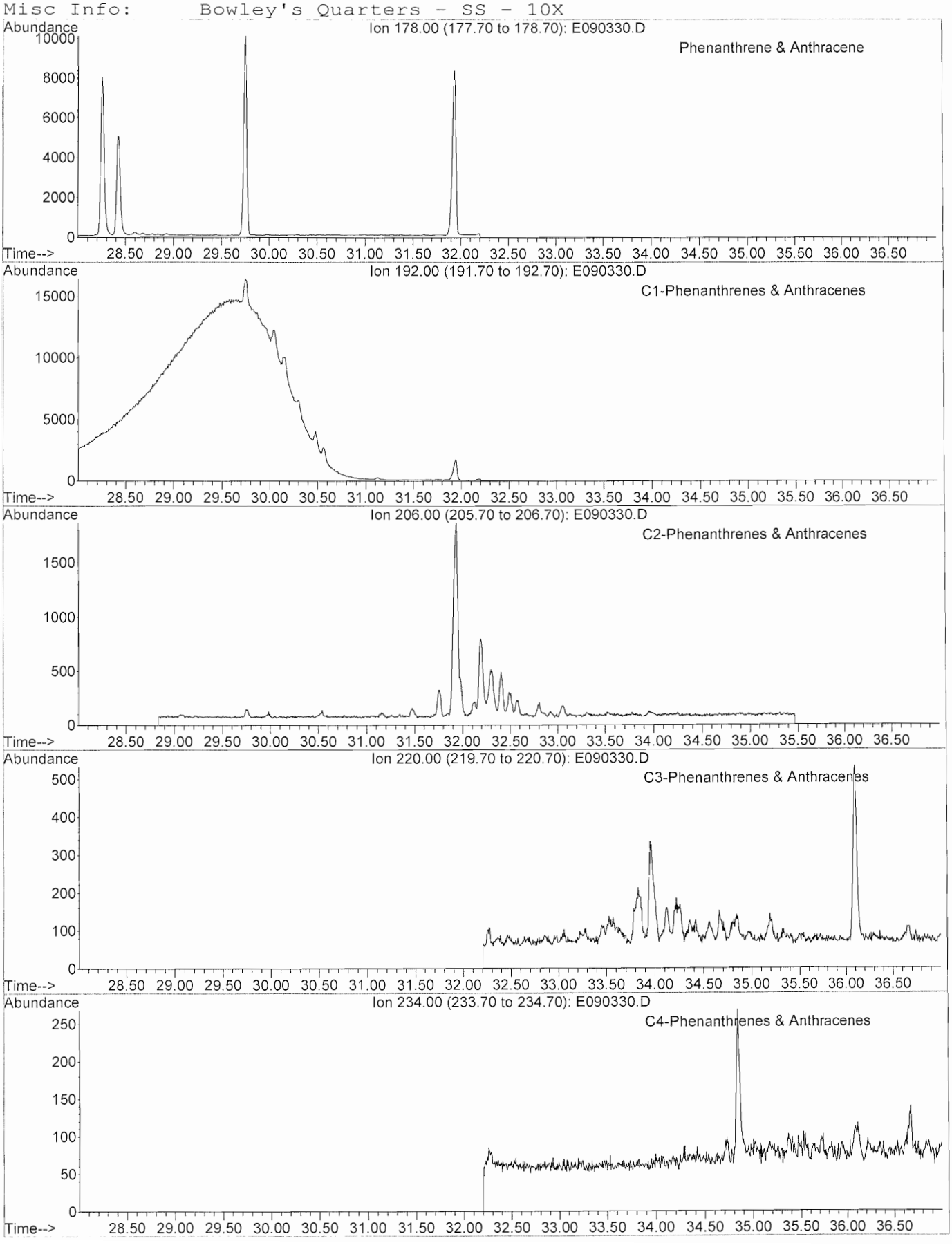




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

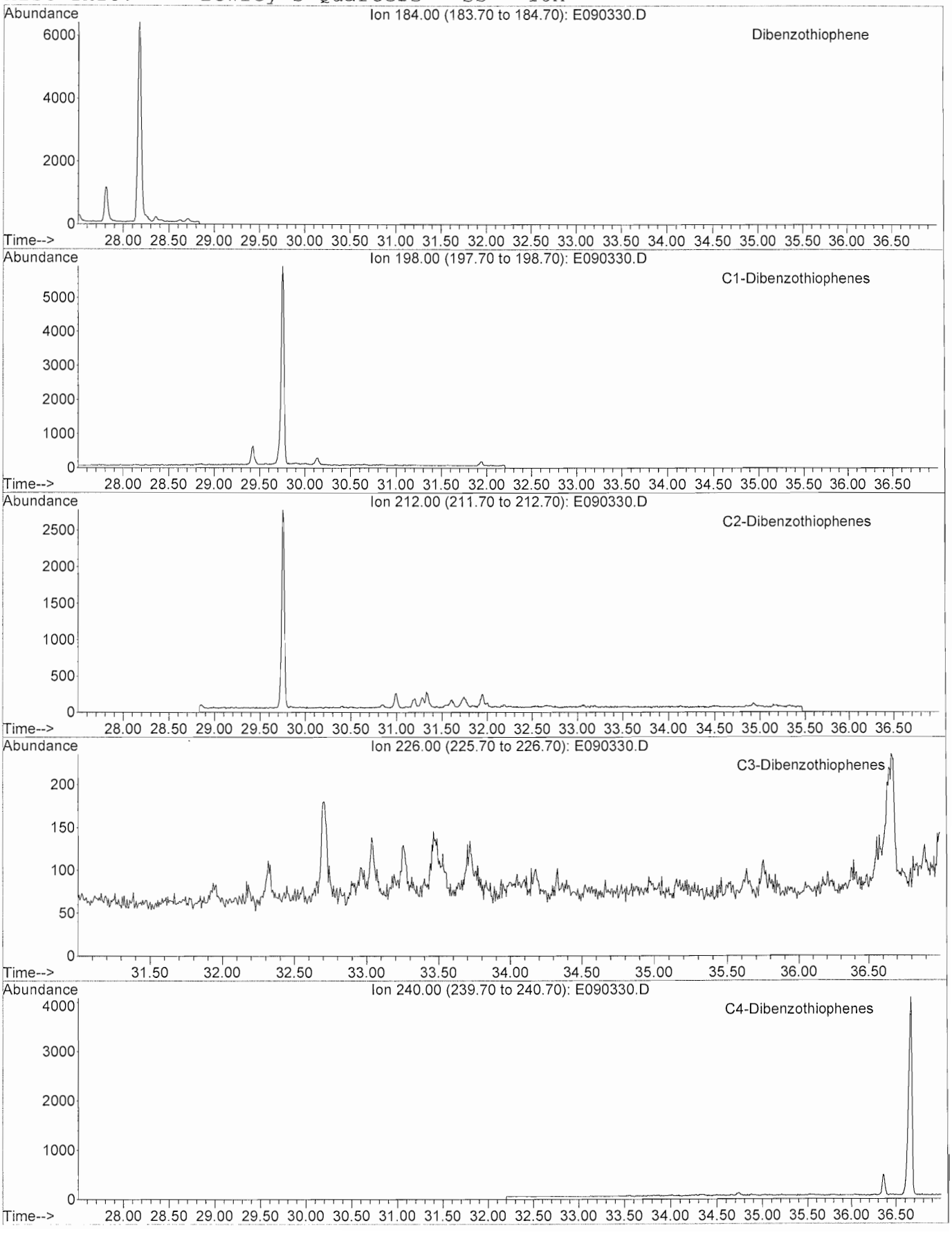
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

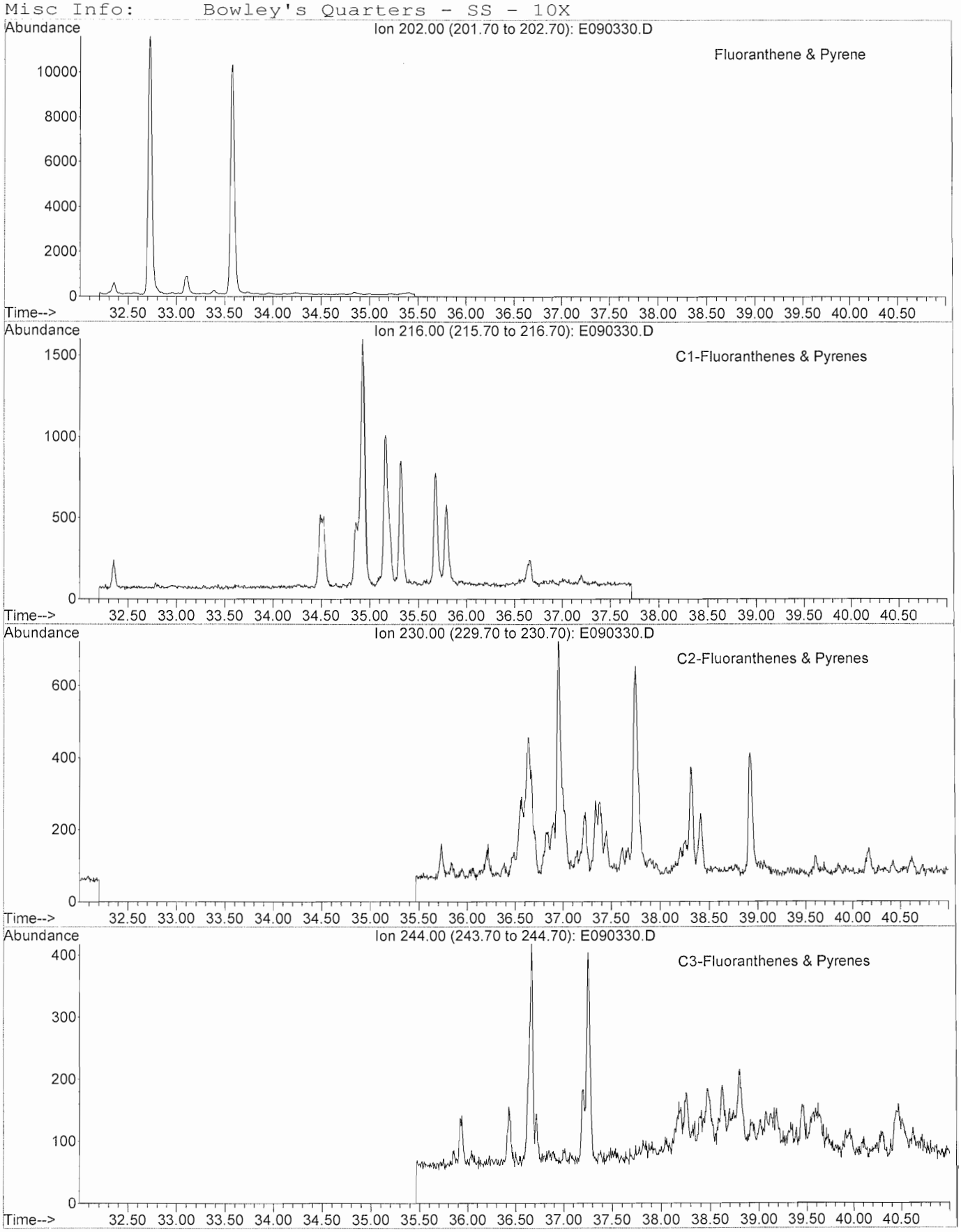
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

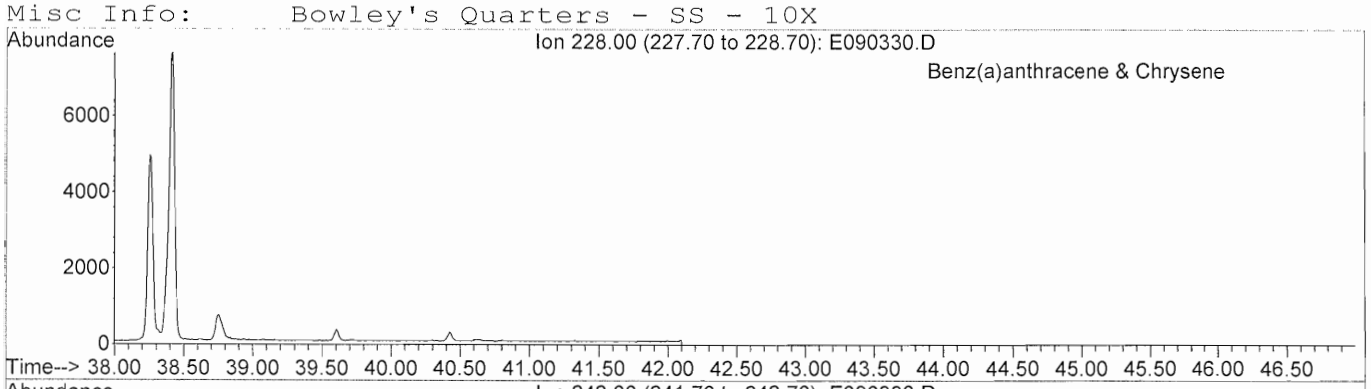
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X

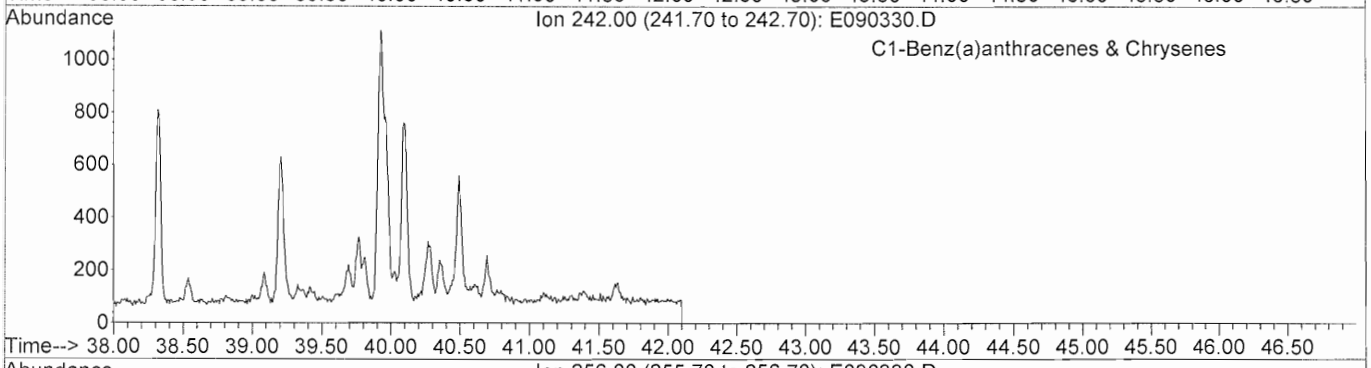


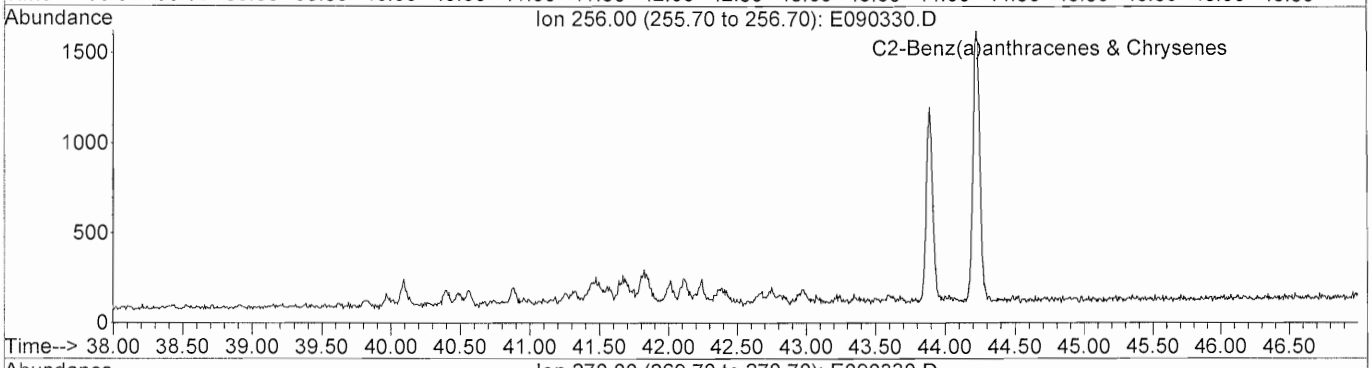
META Environmental, Inc.

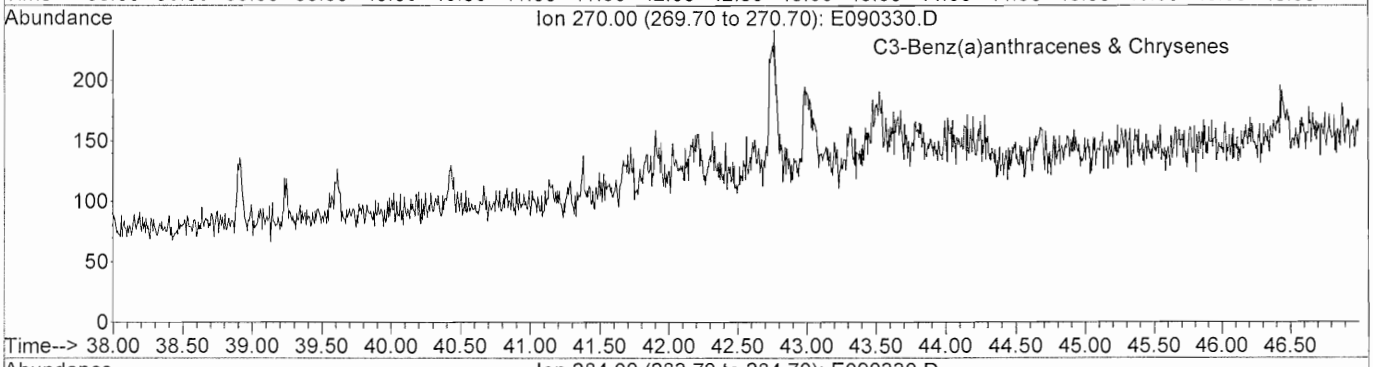
GC/MS EXTRACTED ION CHROMATOGRAM

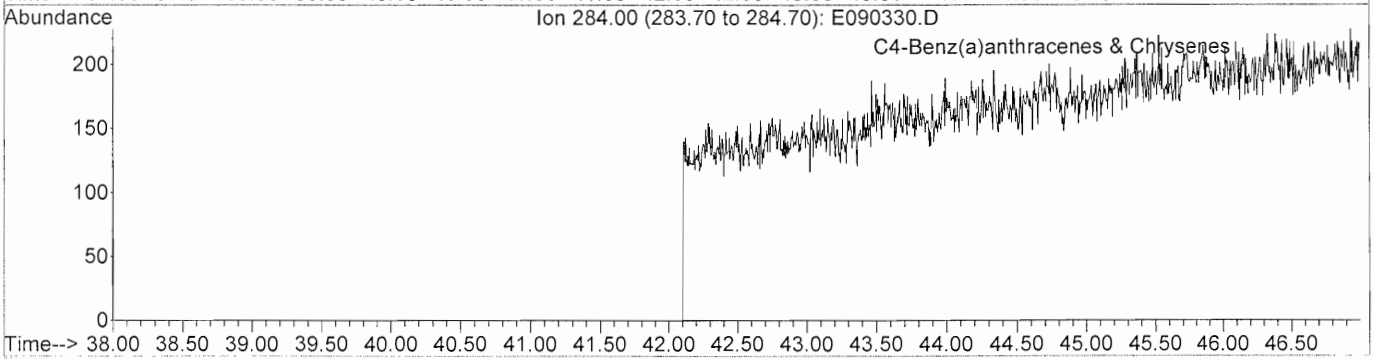
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X







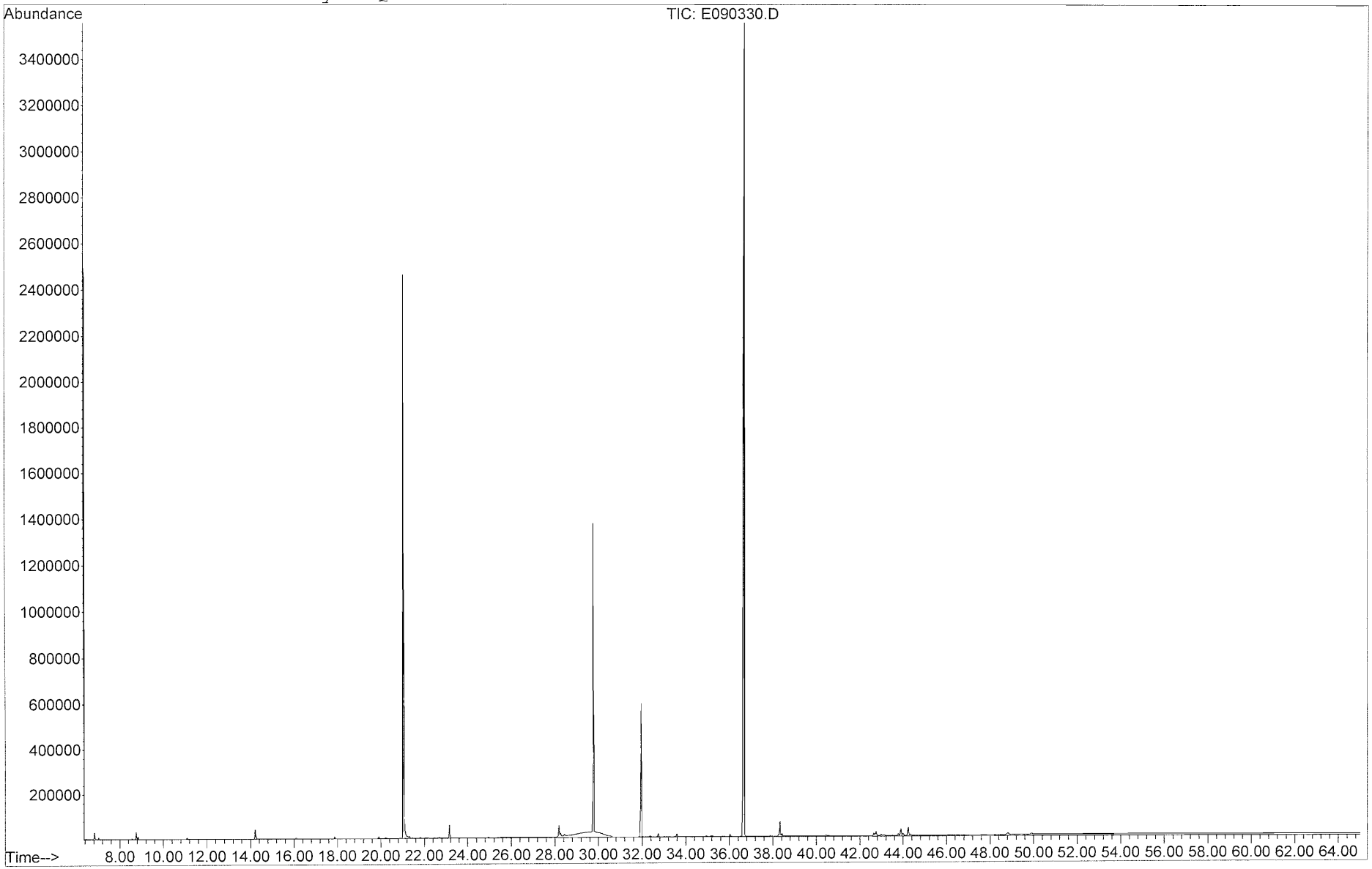




META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

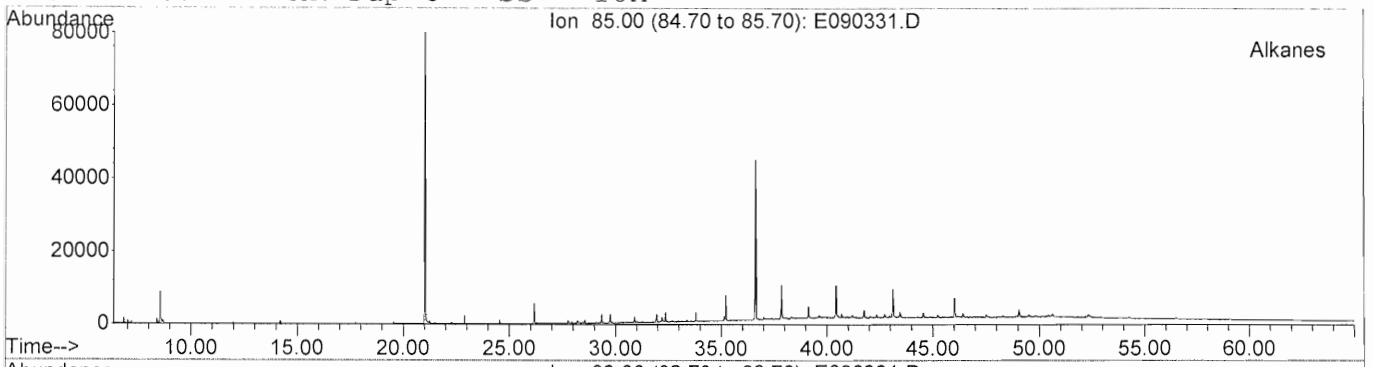
File: J:\1\DATA\E100903\E090330.D
Date Acquired: 5 Sep 2010 4:28 am
Sample Name: TT100824-03
Misc Info: Bowley's Quarters - SS - 10X

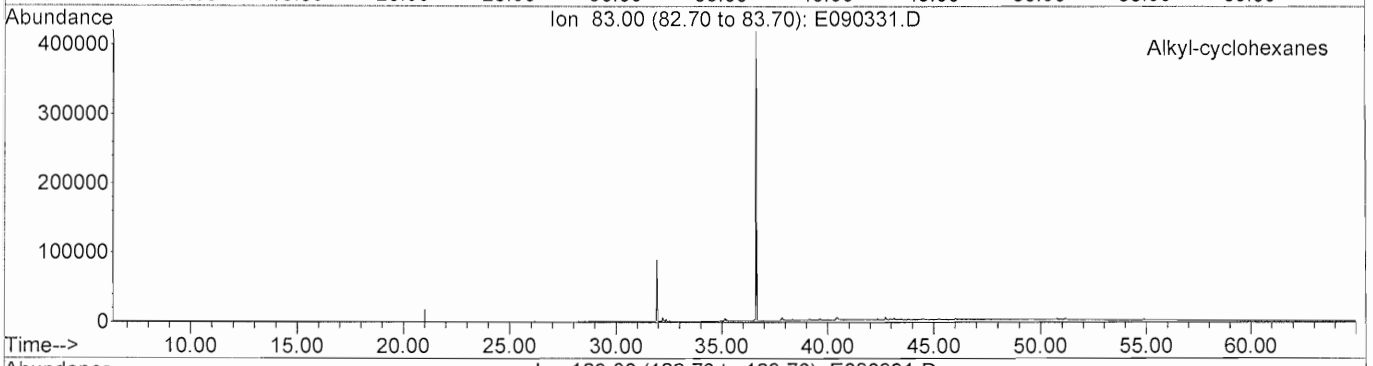


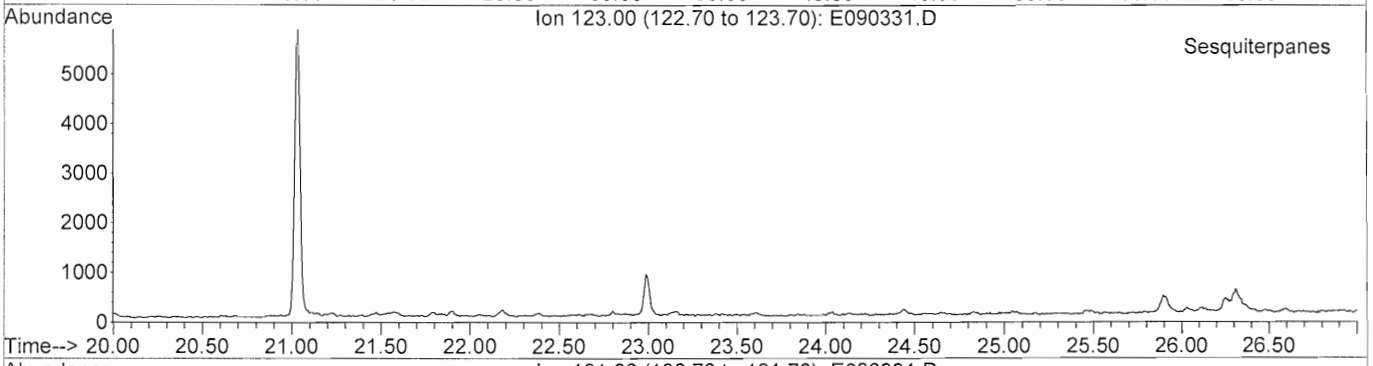
META Environmental, Inc.

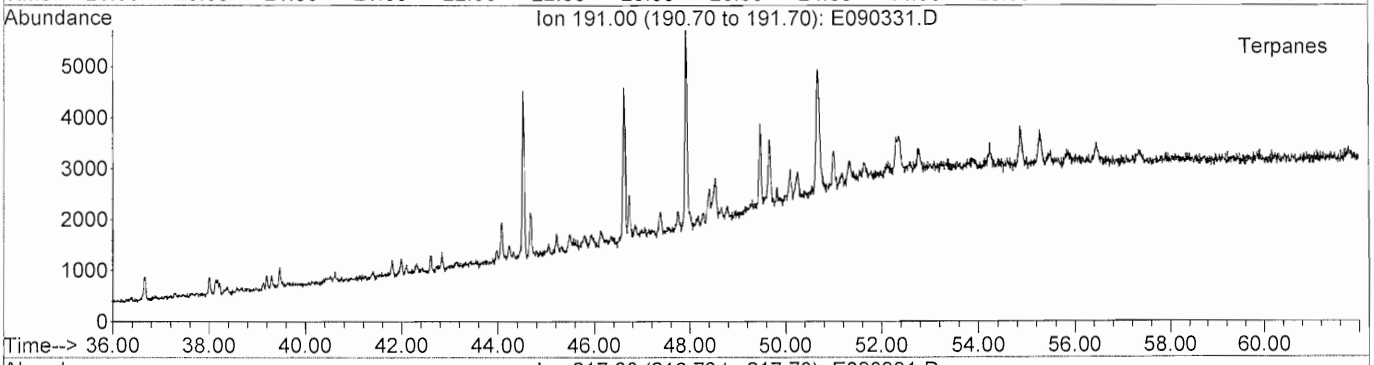
GC/MS EXTRACTED ION CHROMATOGRAM

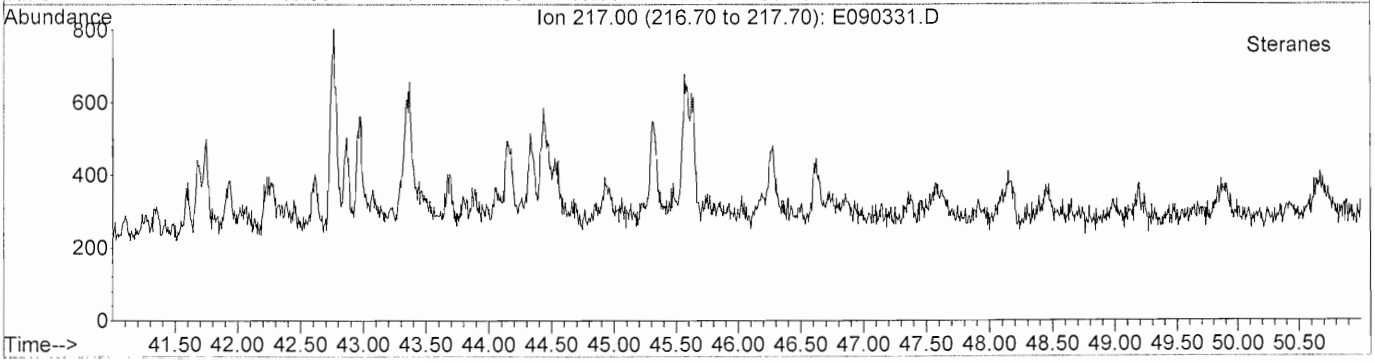
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X







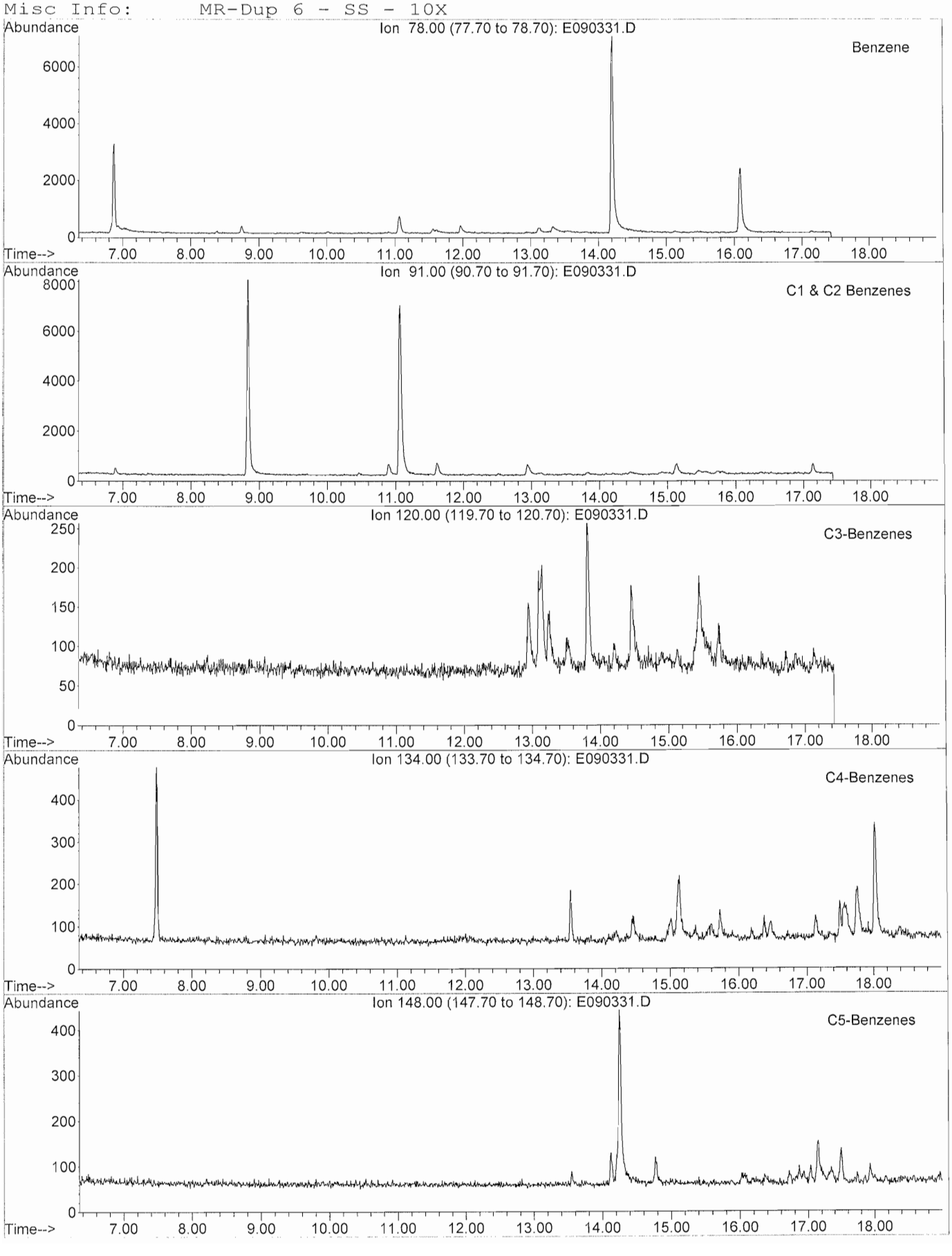




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

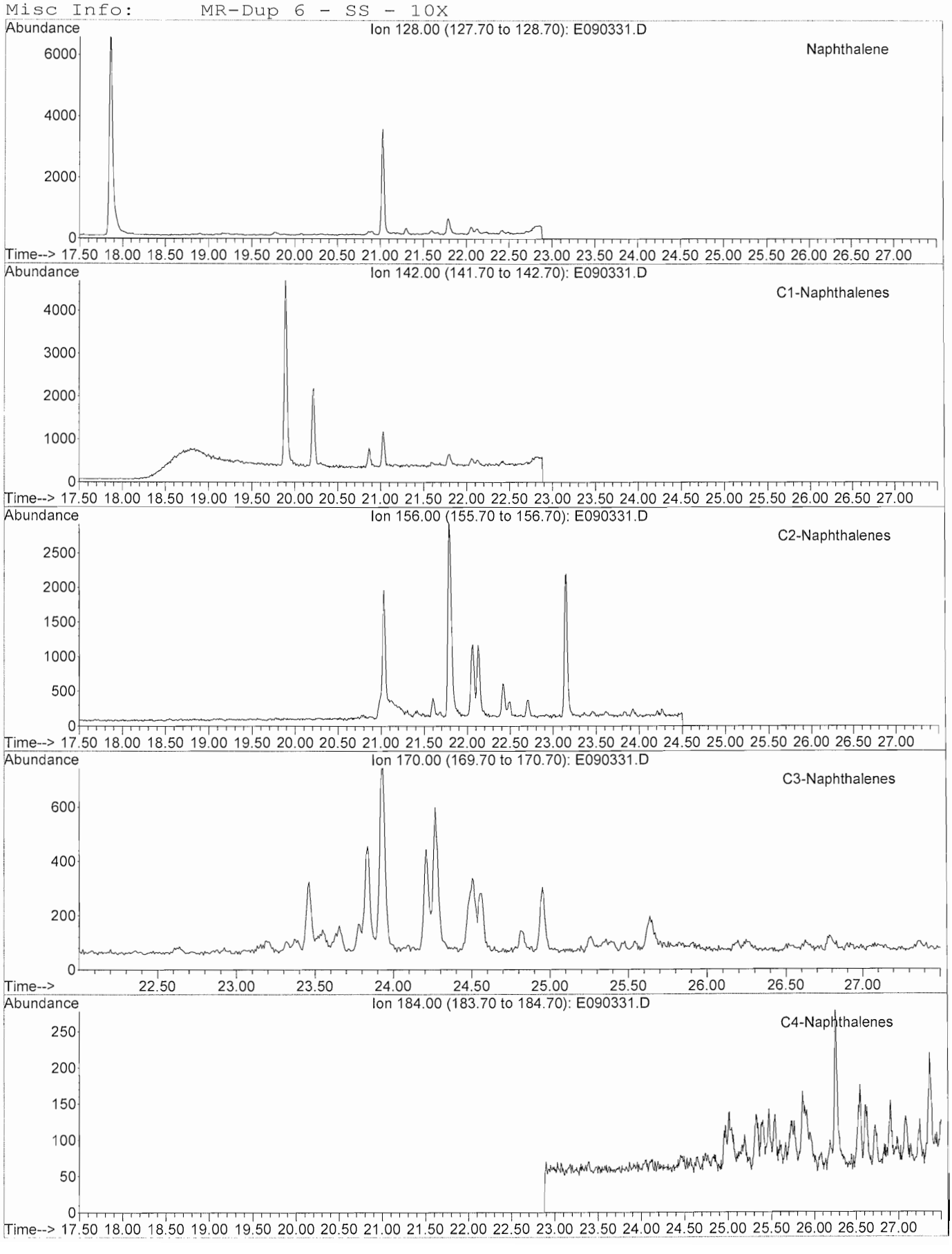
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

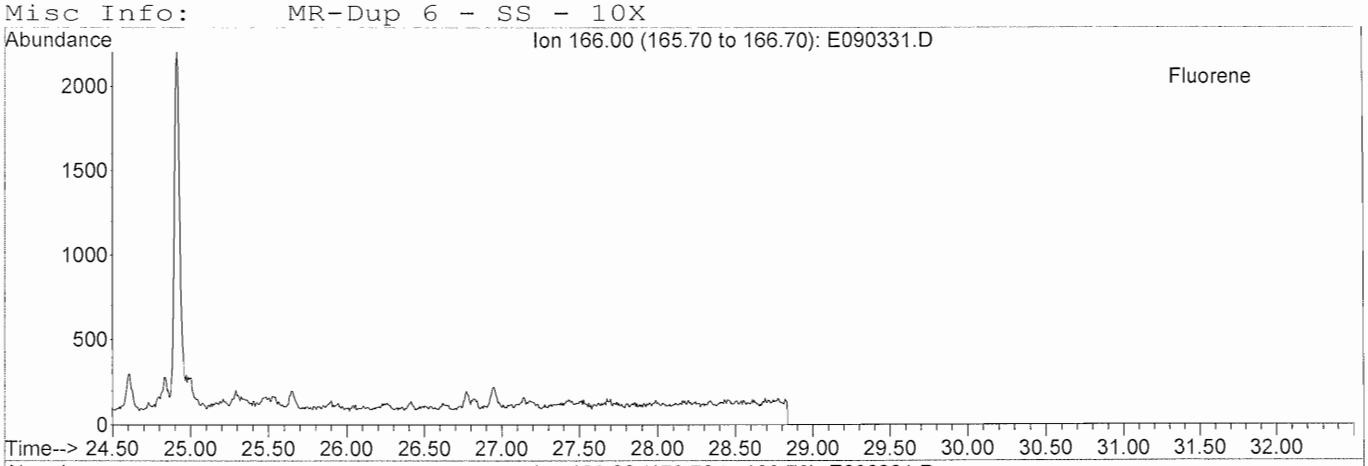
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X

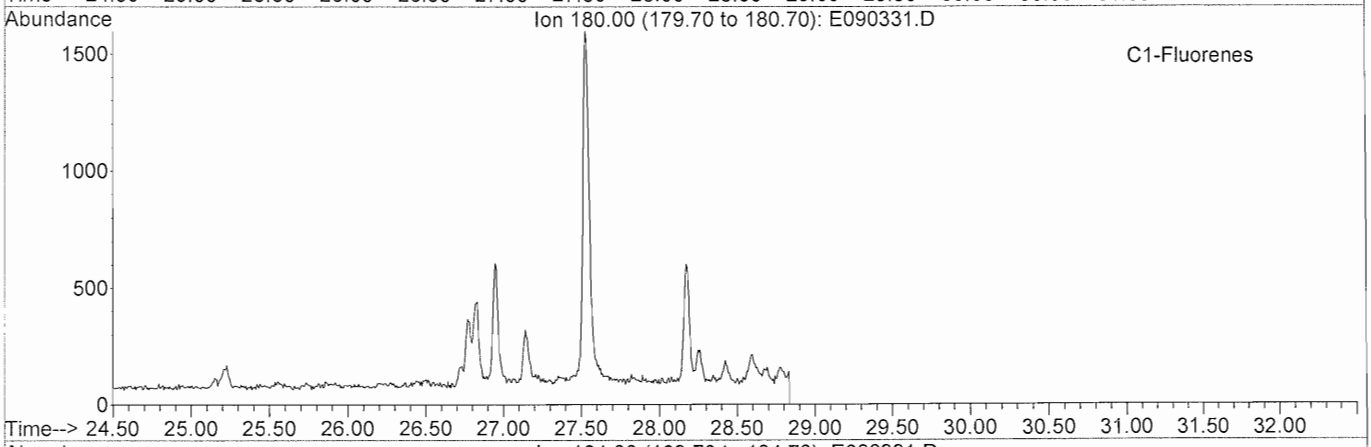


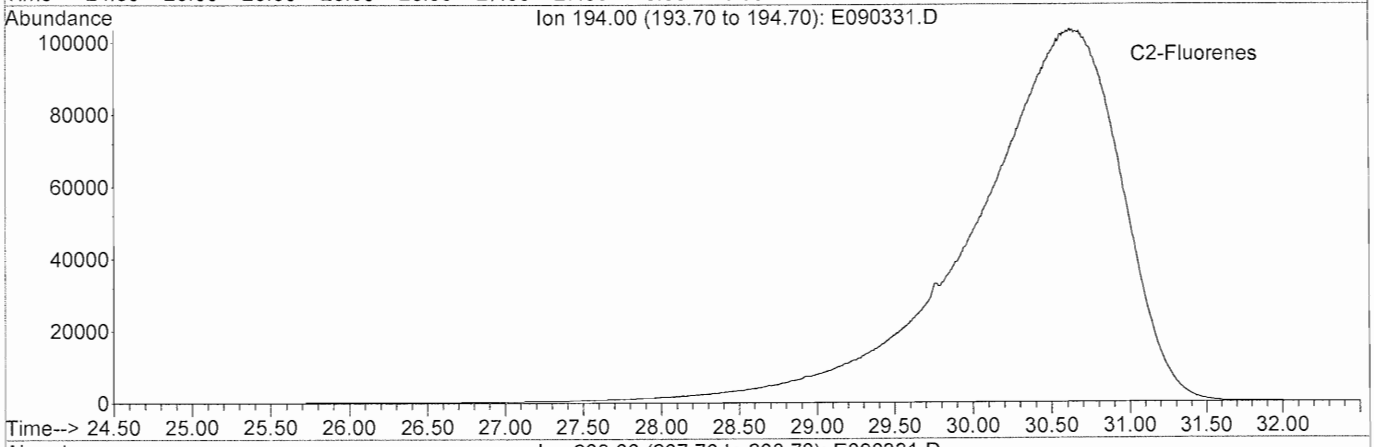
META Environmental, Inc.

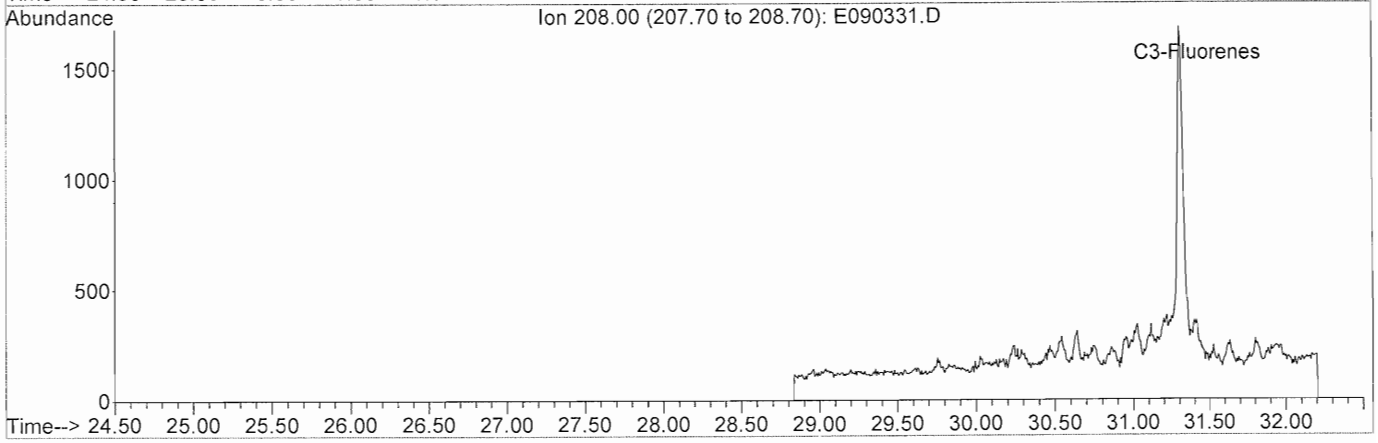
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X





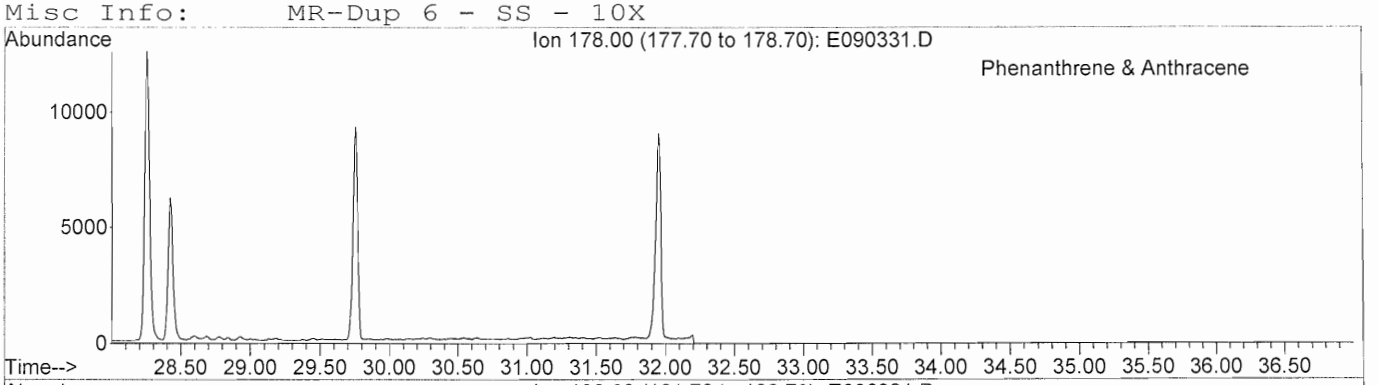


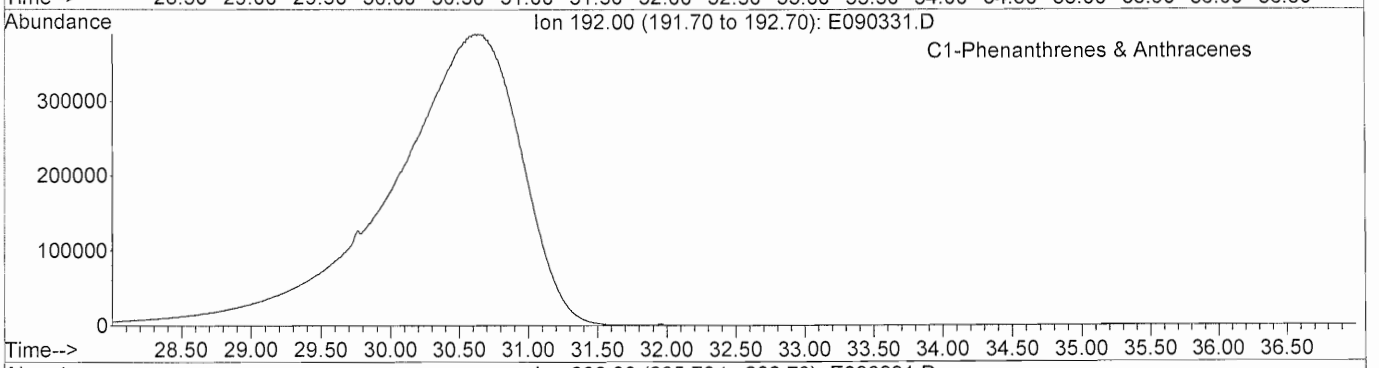


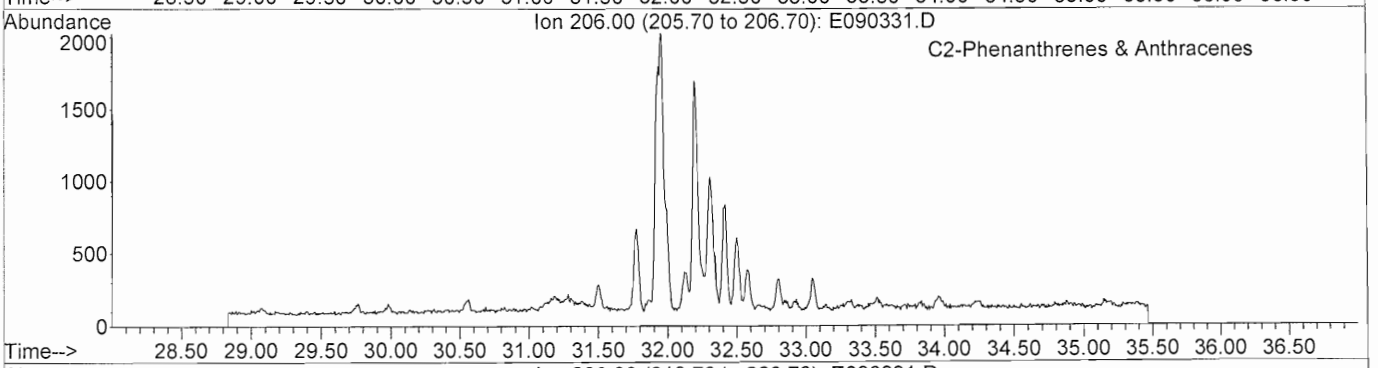
META Environmental, Inc.

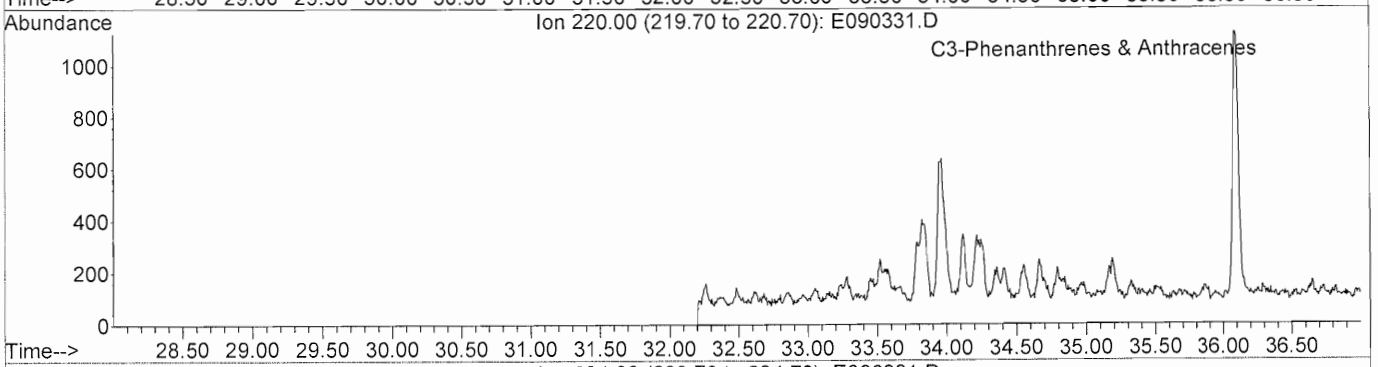
GC/MS EXTRACTED ION CHROMATOGRAM

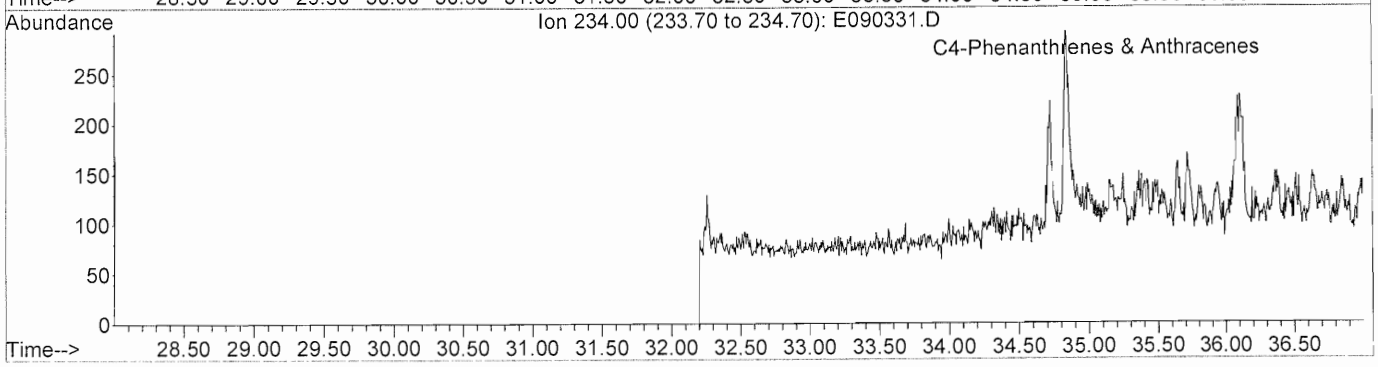
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X







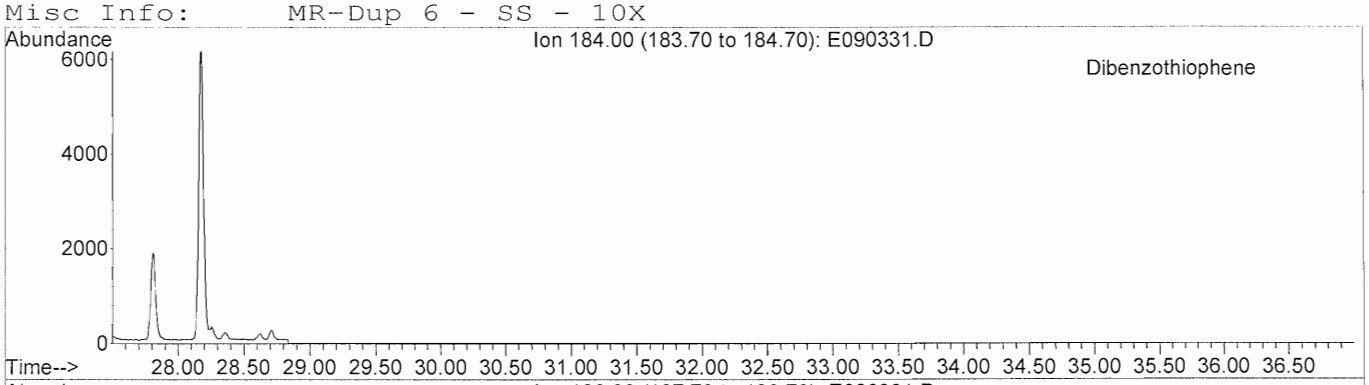


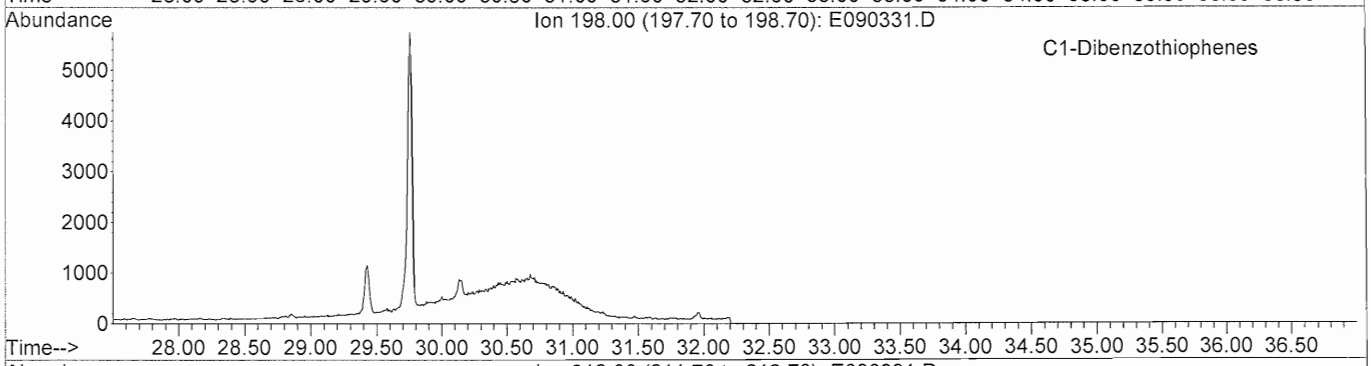


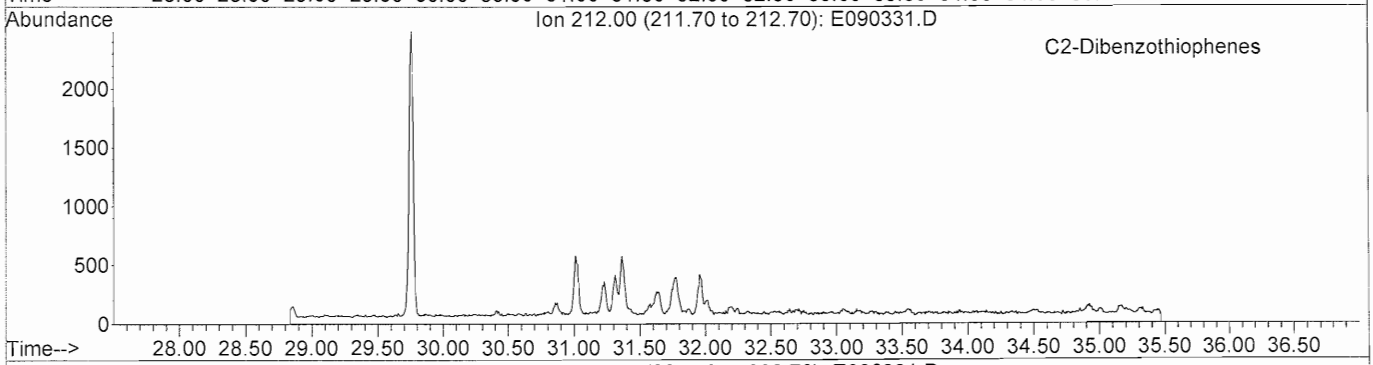
META Environmental, Inc.

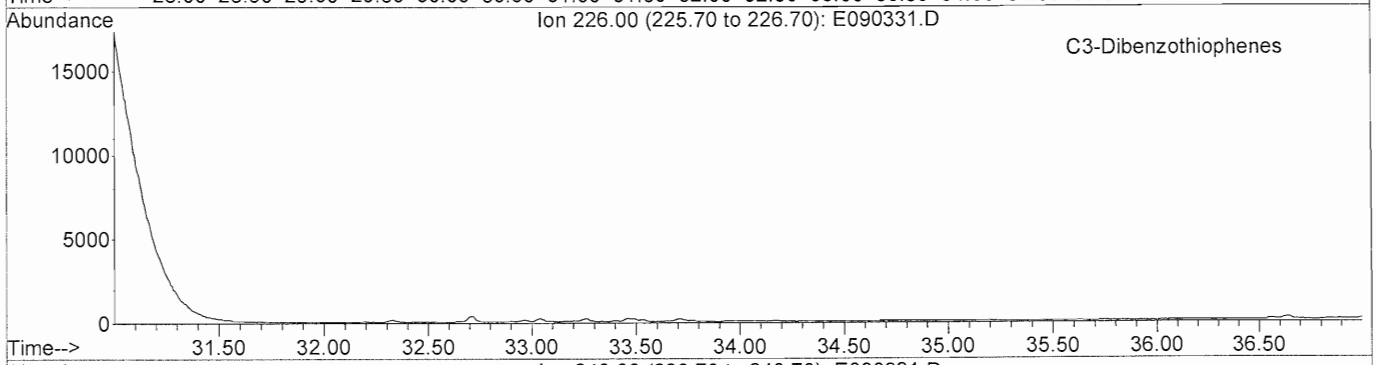
GC/MS EXTRACTED ION CHROMATOGRAM

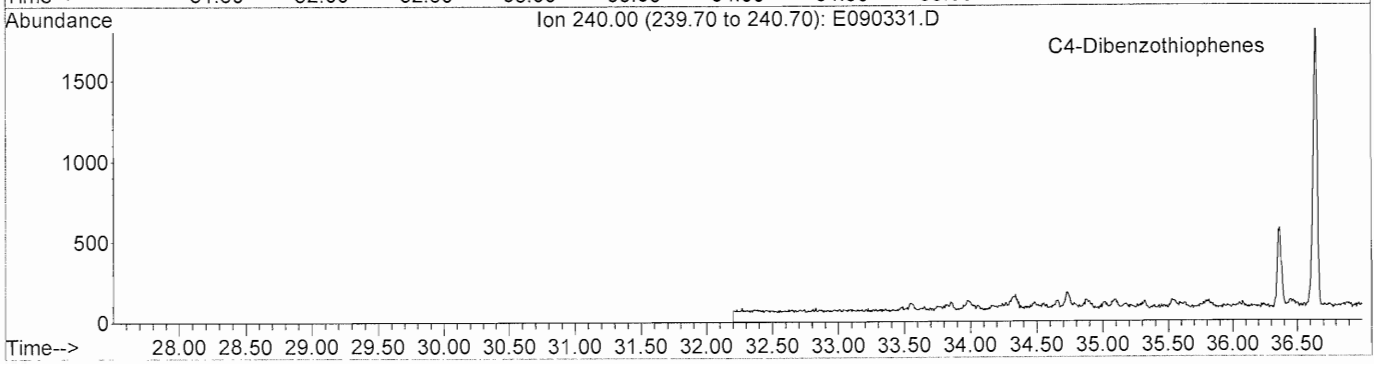
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X







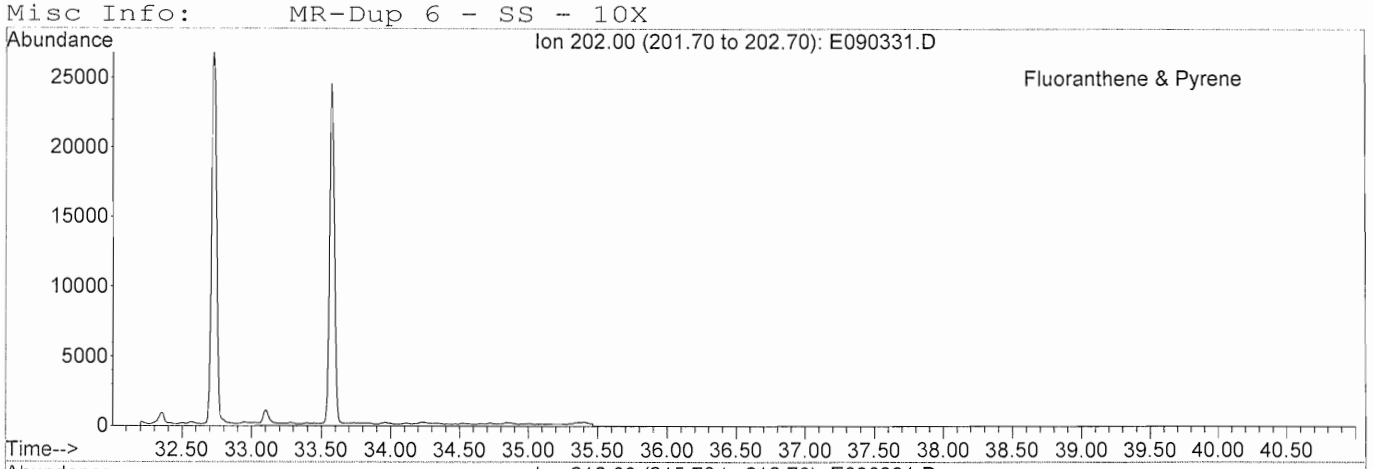


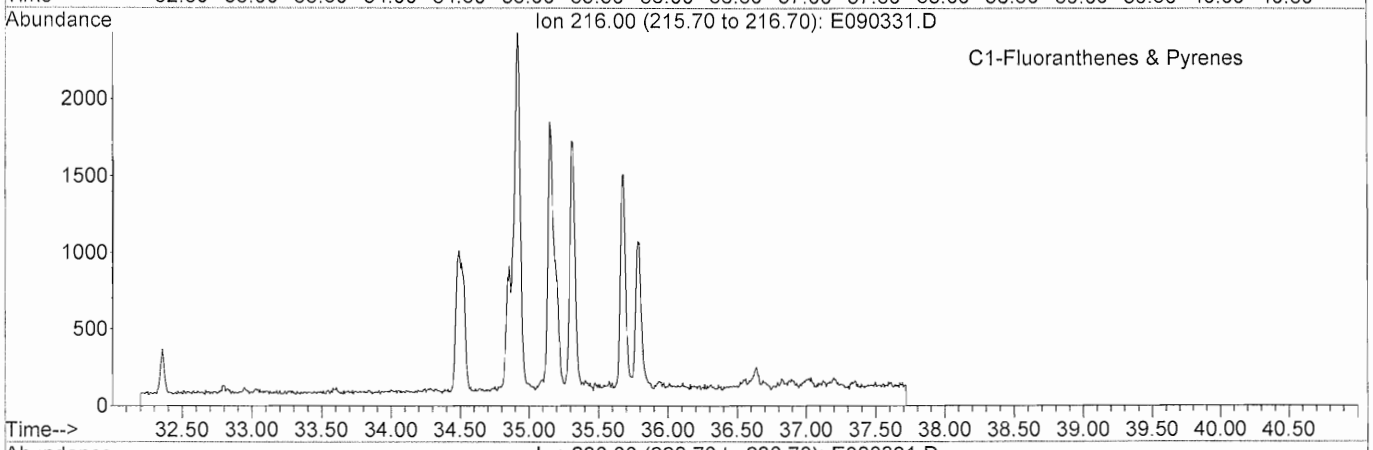


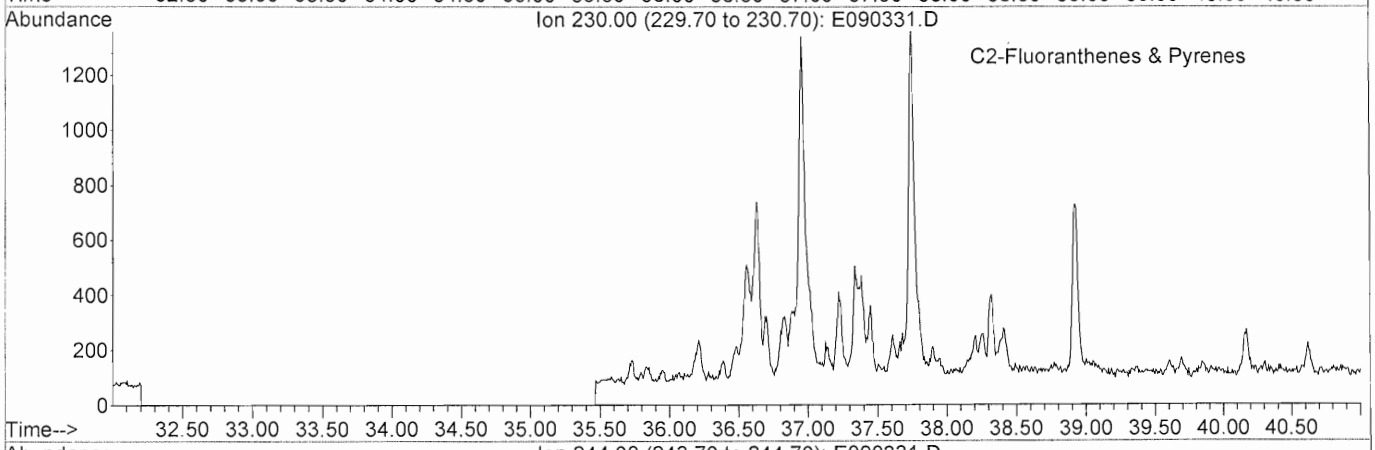
META Environmental, Inc.

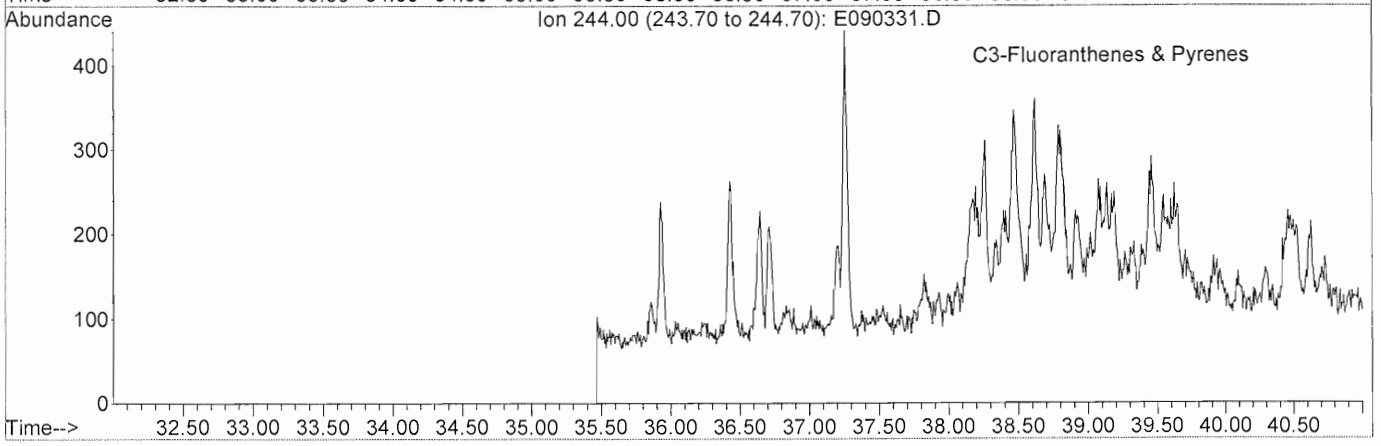
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X





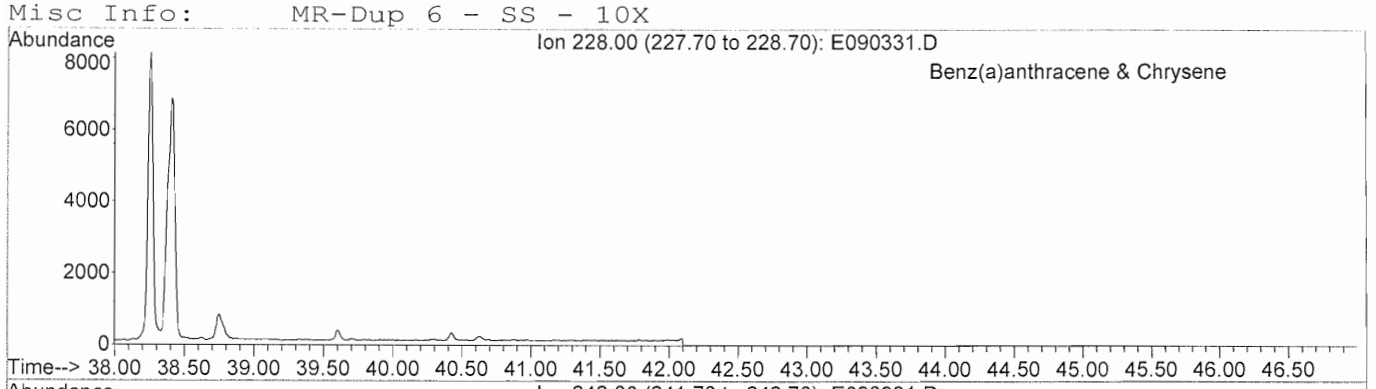


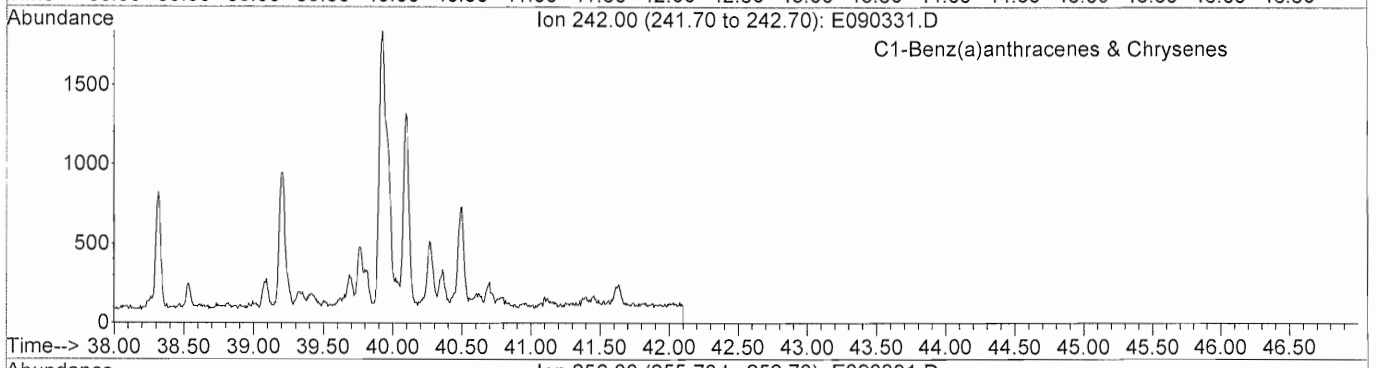


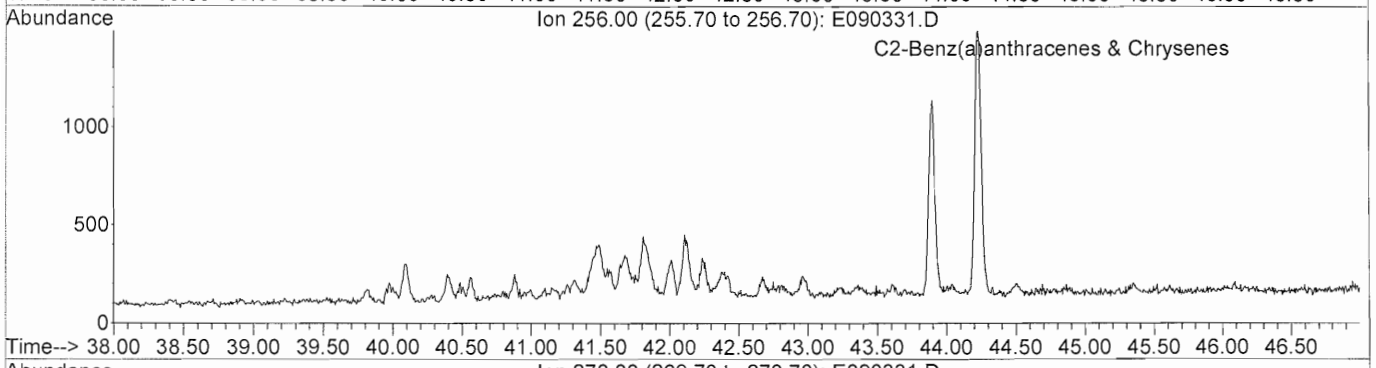
META Environmental, Inc.

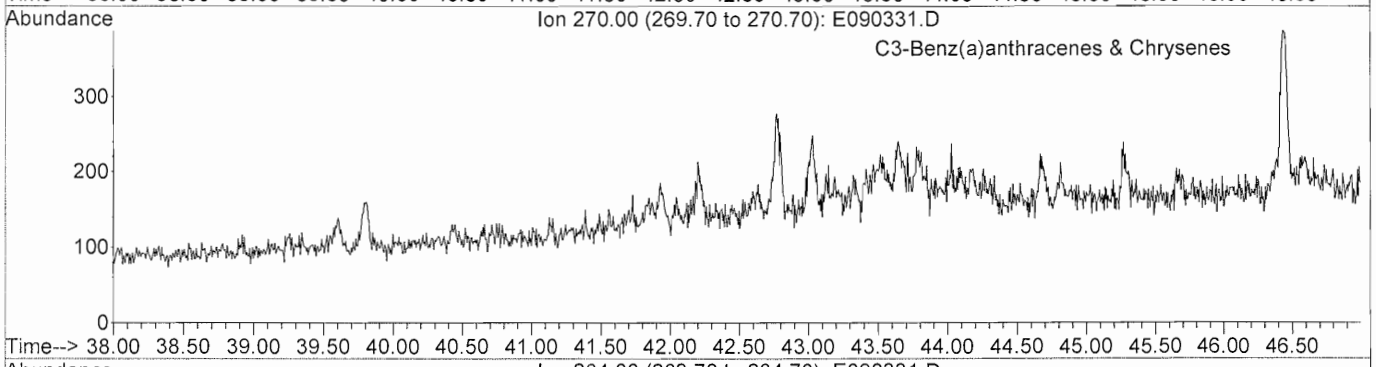
GC/MS EXTRACTED ION CHROMATOGRAM

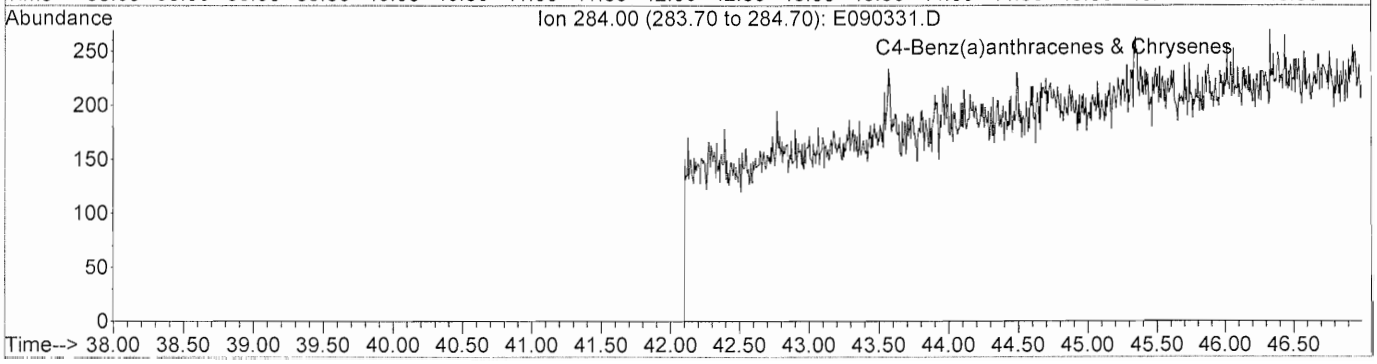
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X







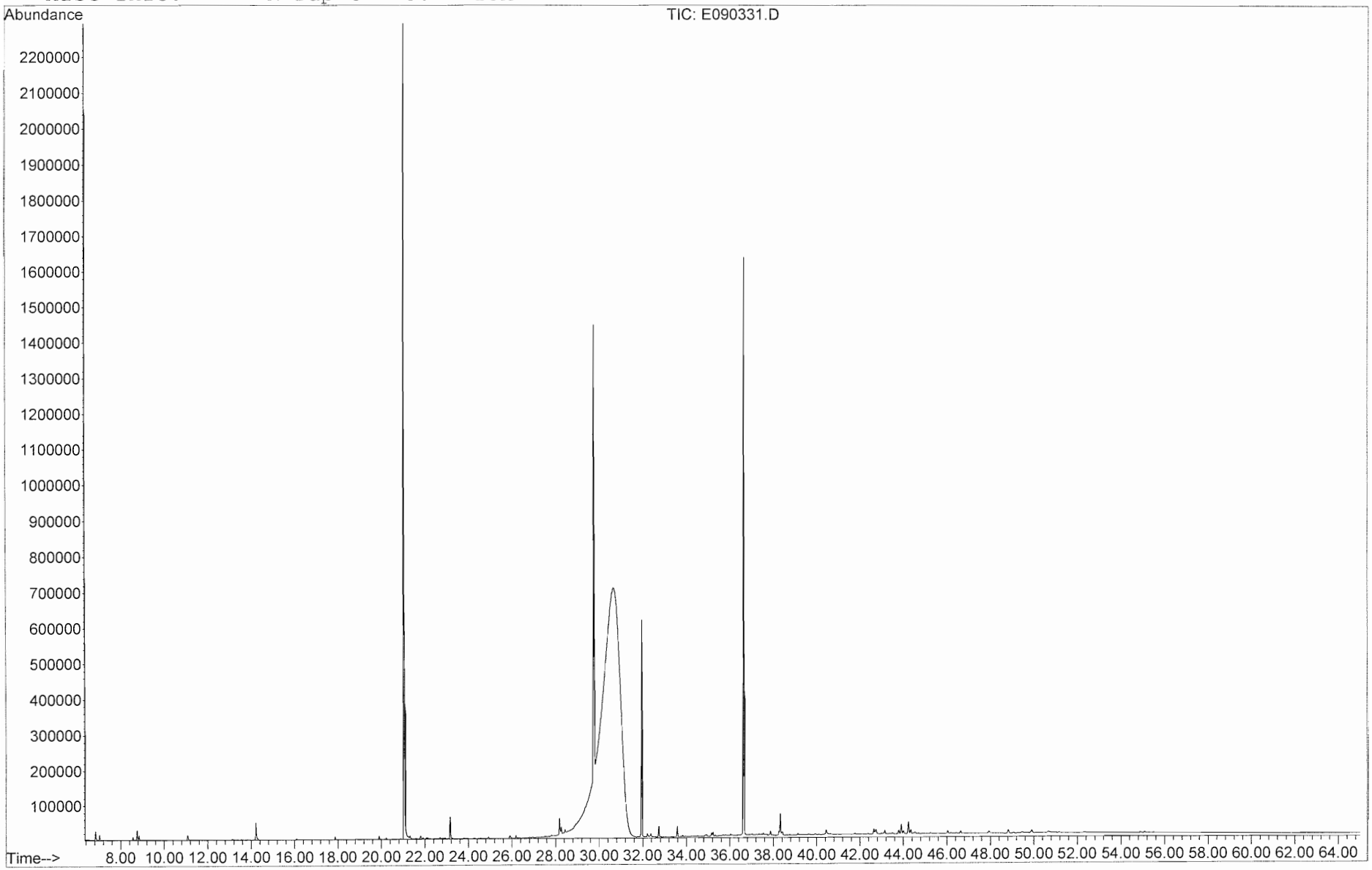




META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

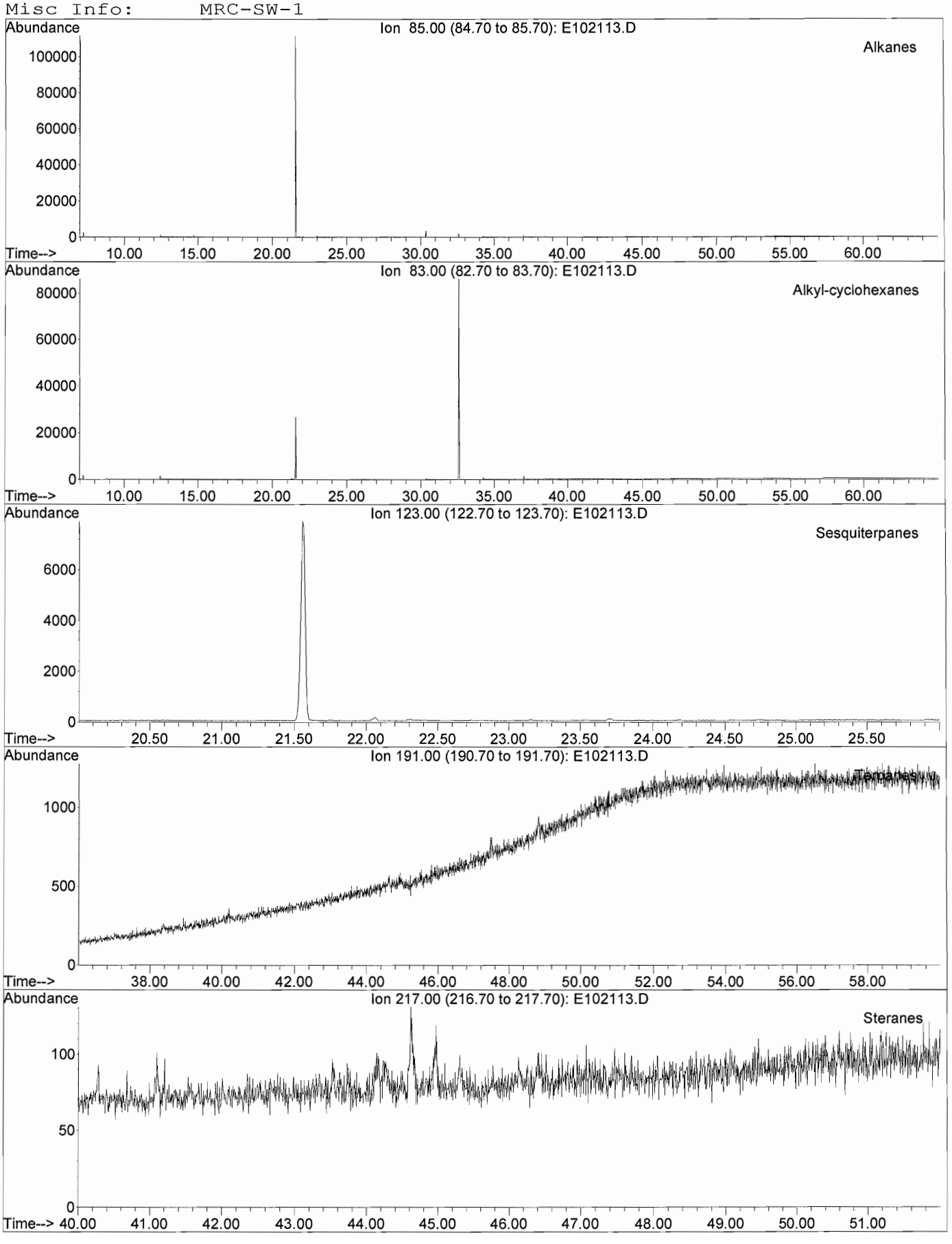
File: J:\1\DATA\E100903\E090331.D
Date Acquired: 5 Sep 2010 5:48 am
Sample Name: TT100824-04
Misc Info: MR-Dup 6 - SS - 10X



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

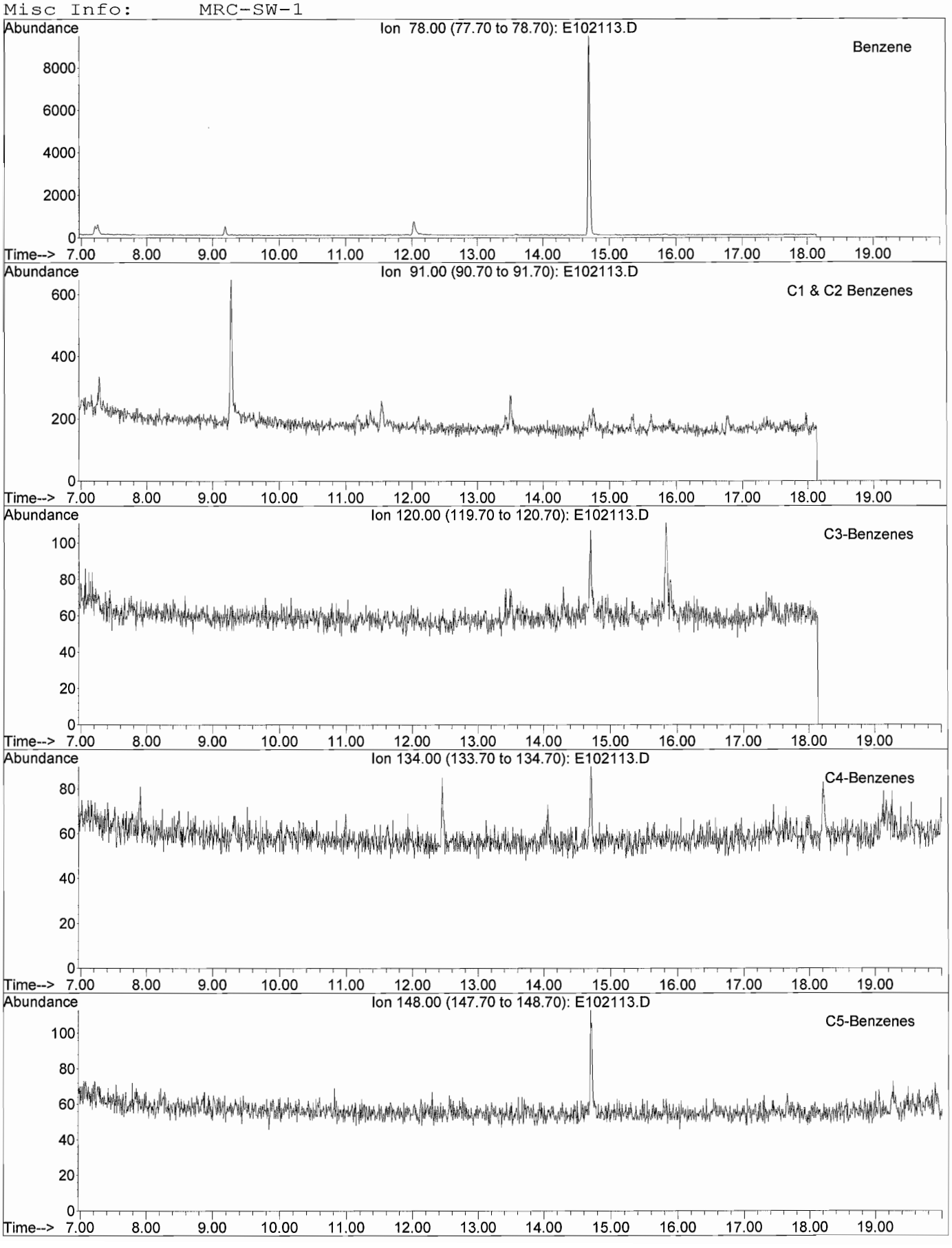
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

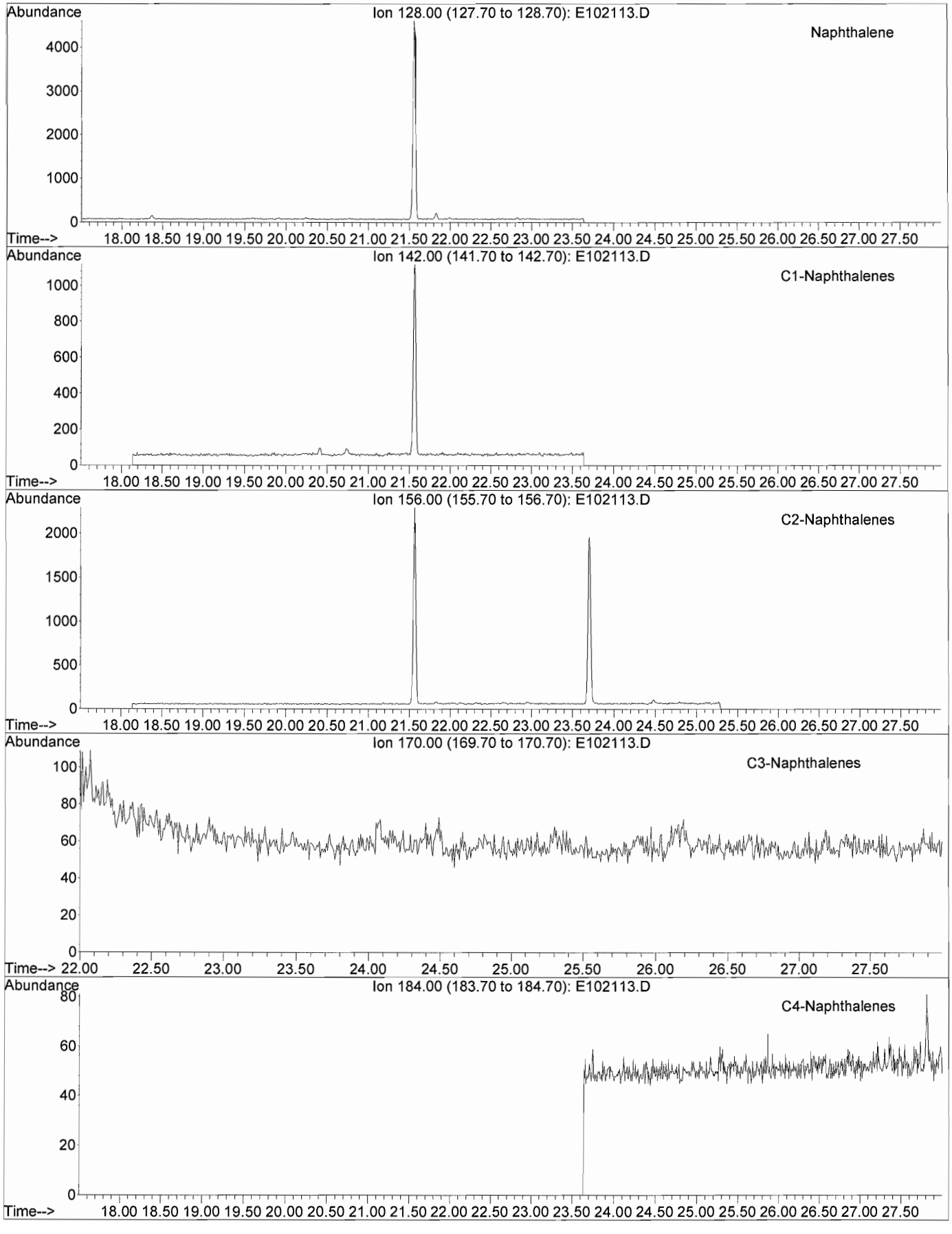
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

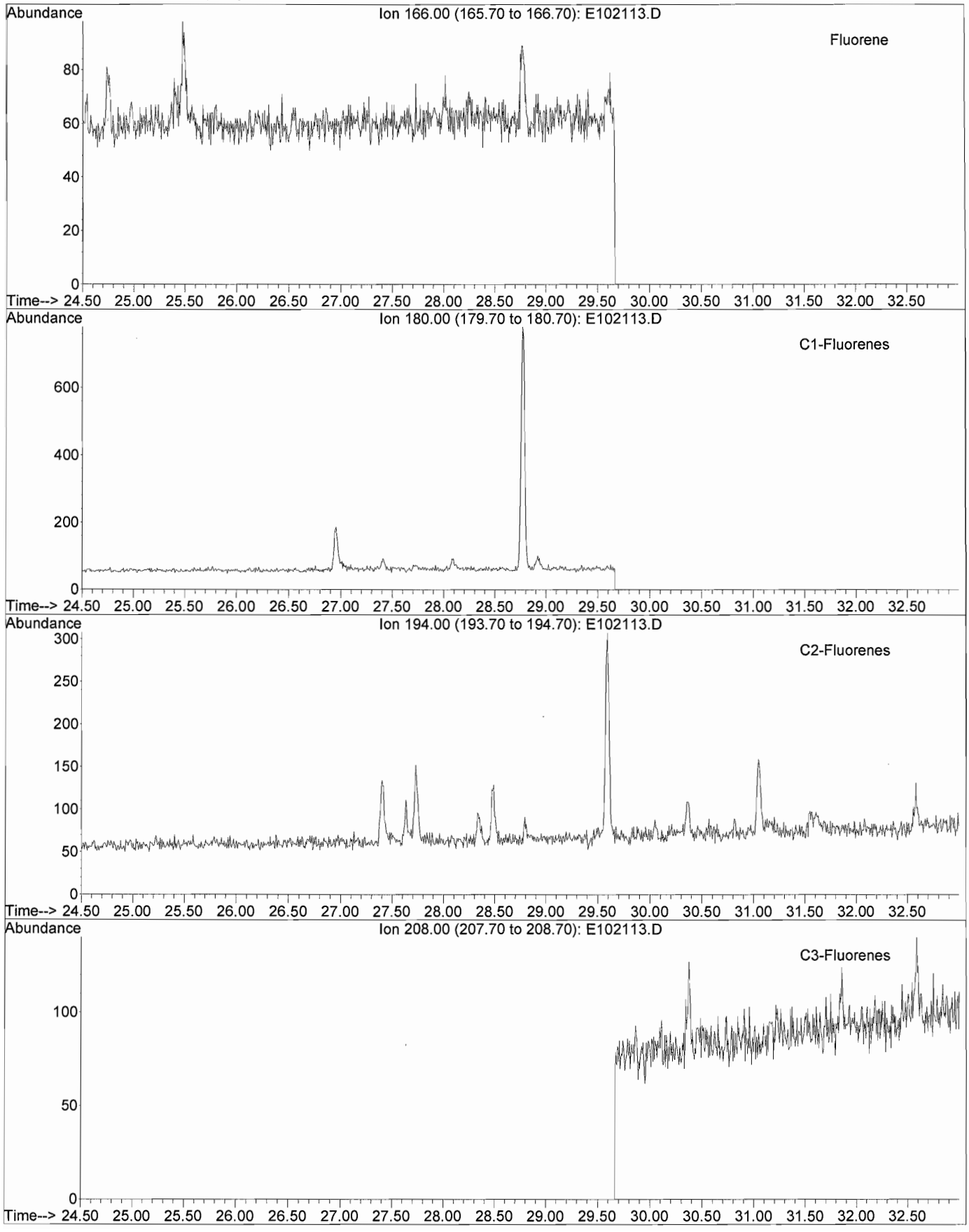
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

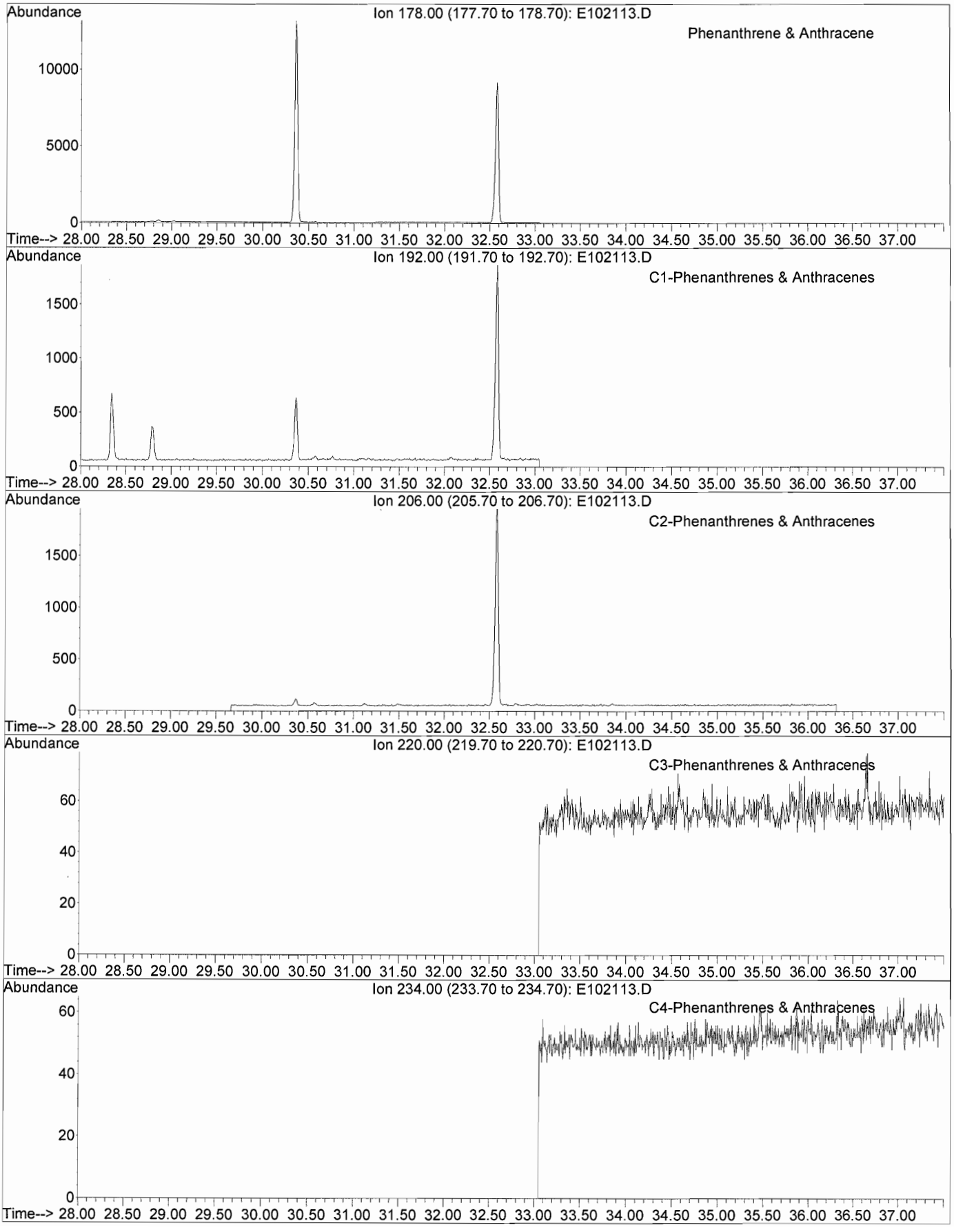
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

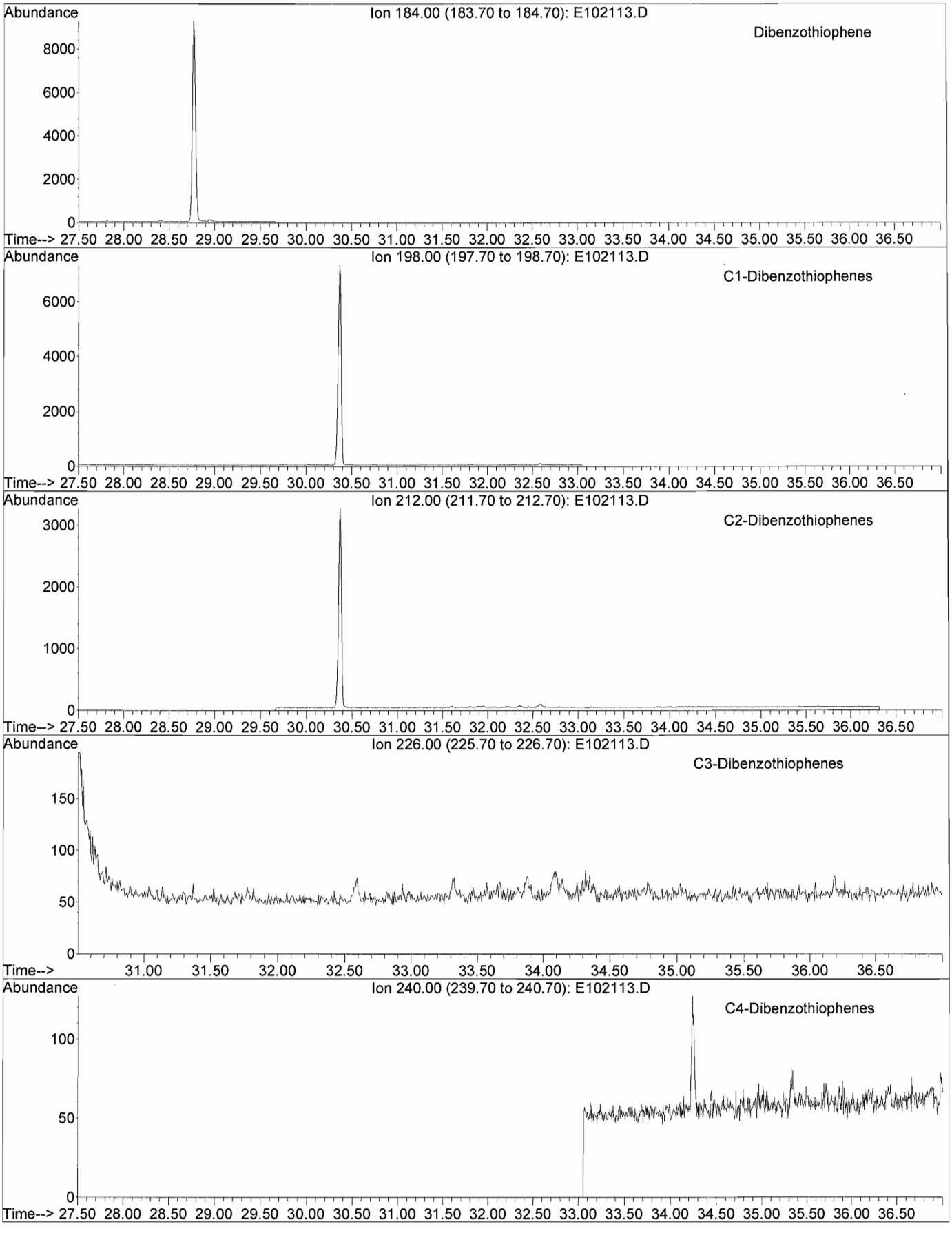
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

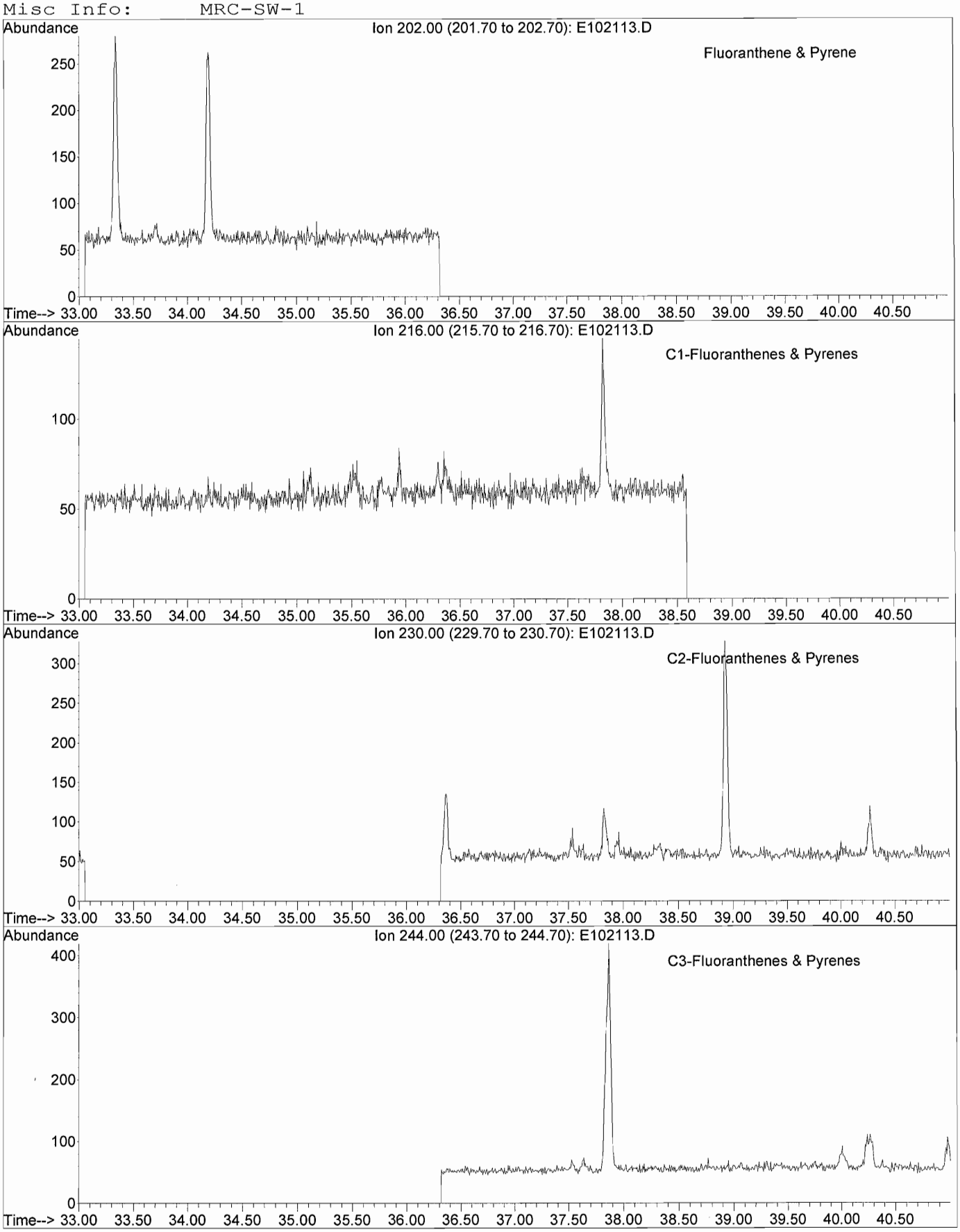
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

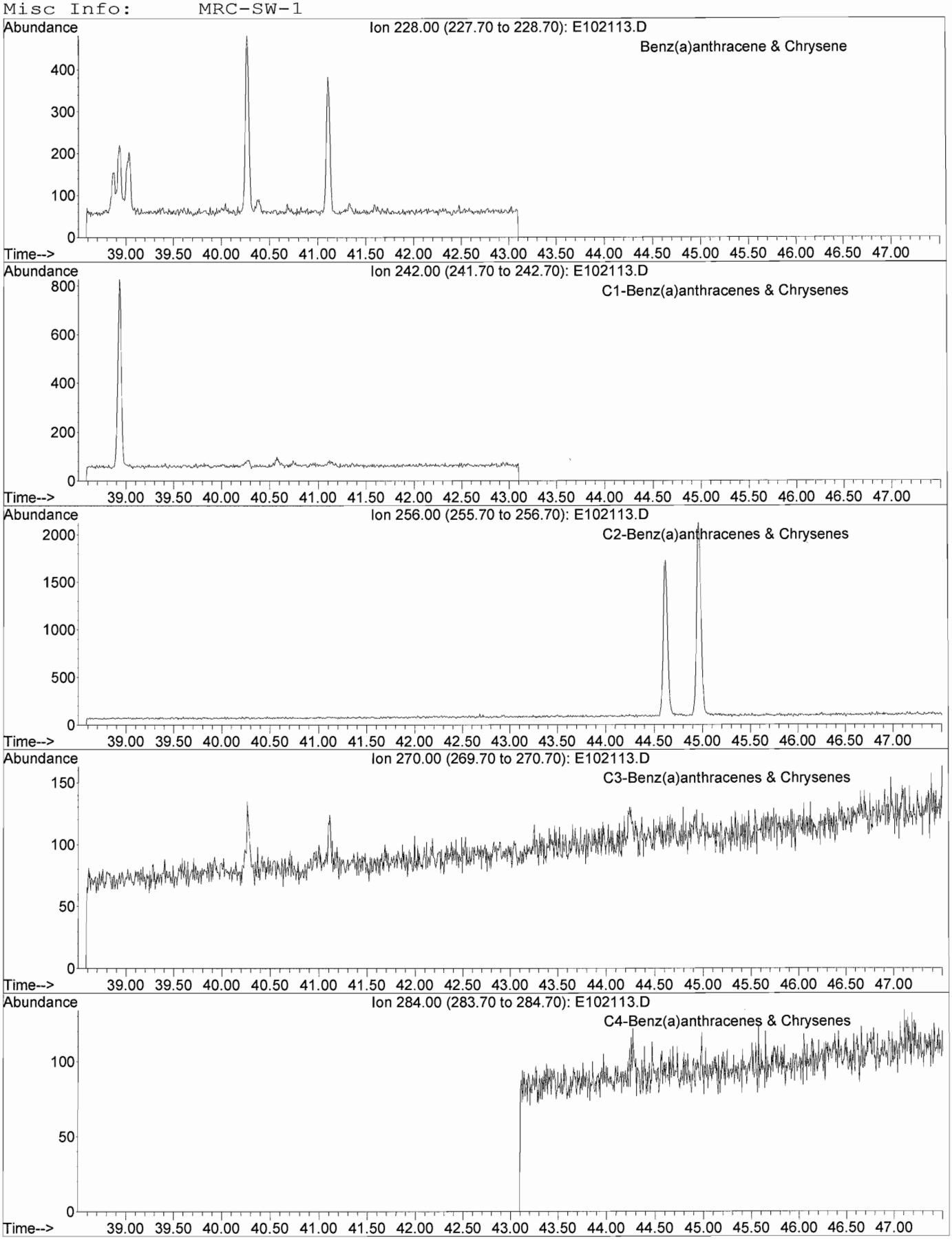
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

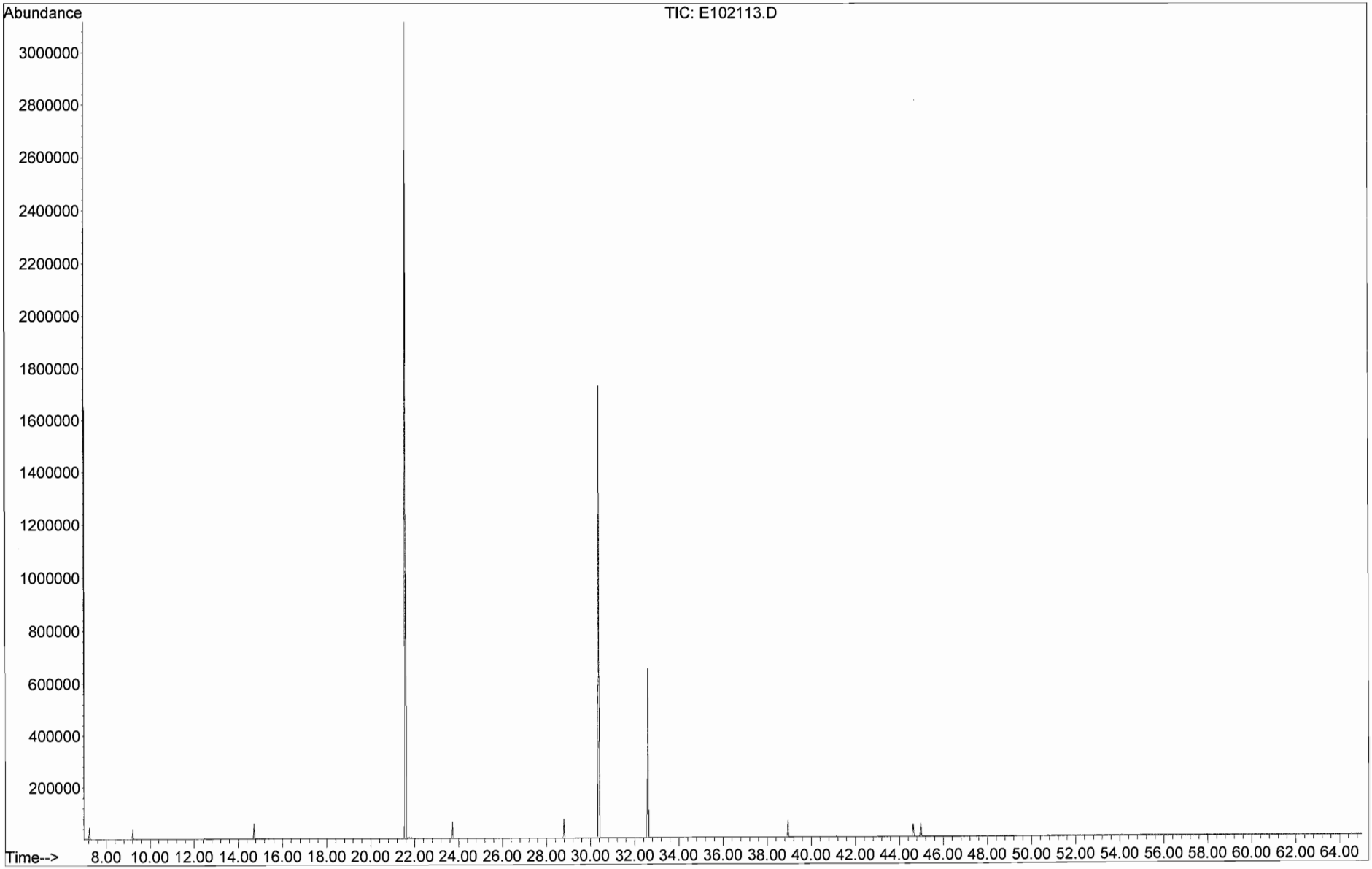
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

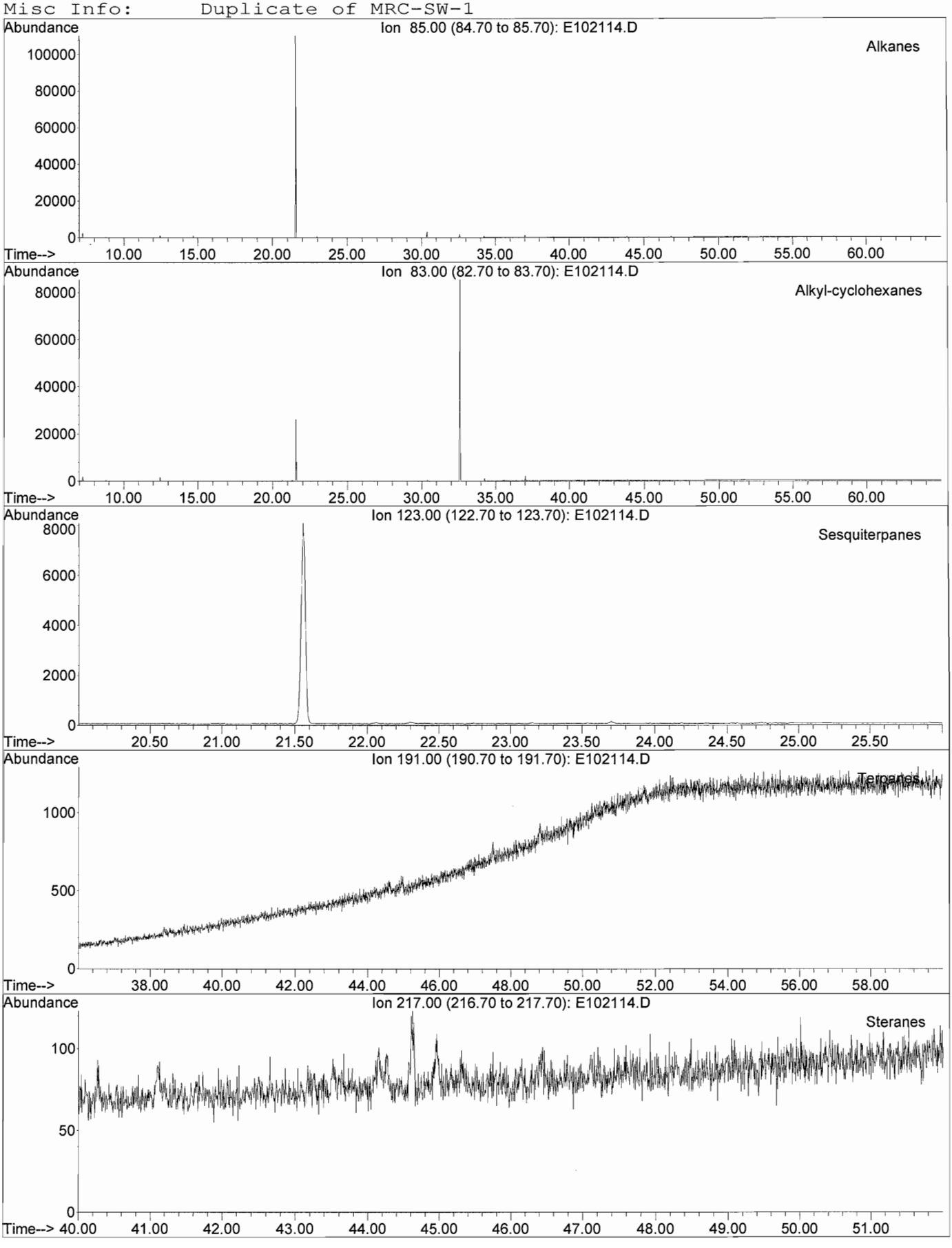
File: J:\1\DATA\E101021\E102113.D
Date Acquired: 22 Oct 2010 2:04 am
Sample Name: TT101015-01
Misc Info: MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

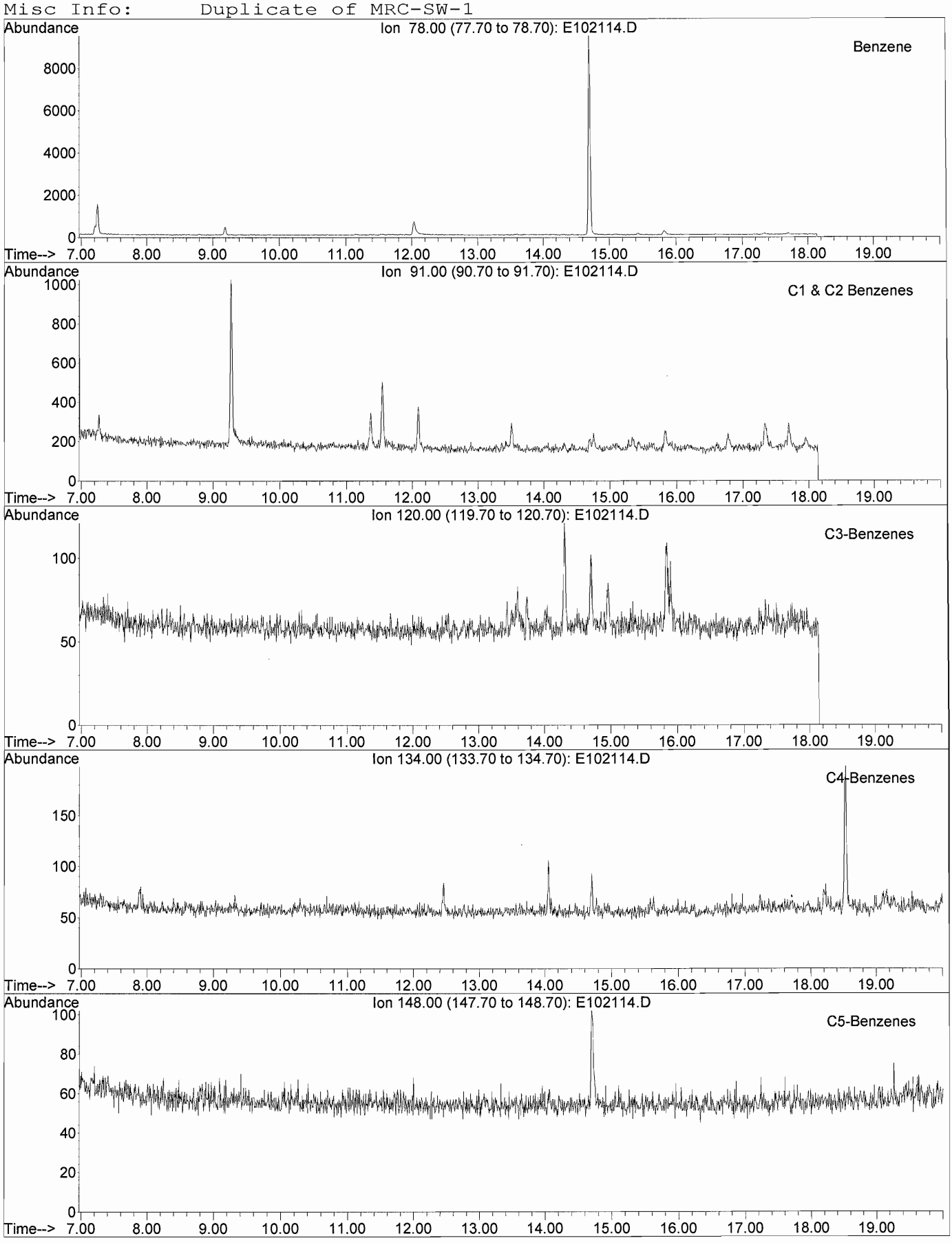
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

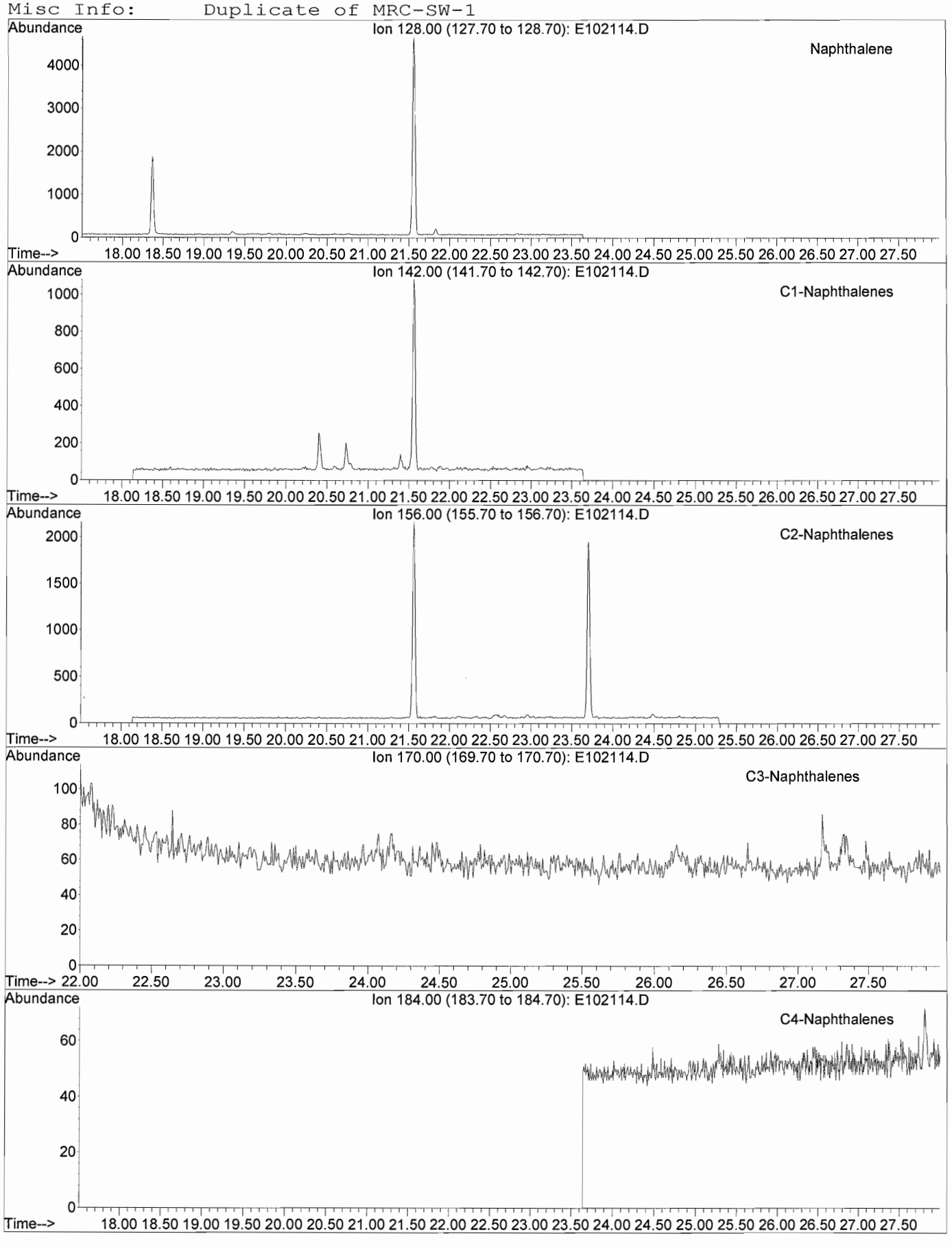
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

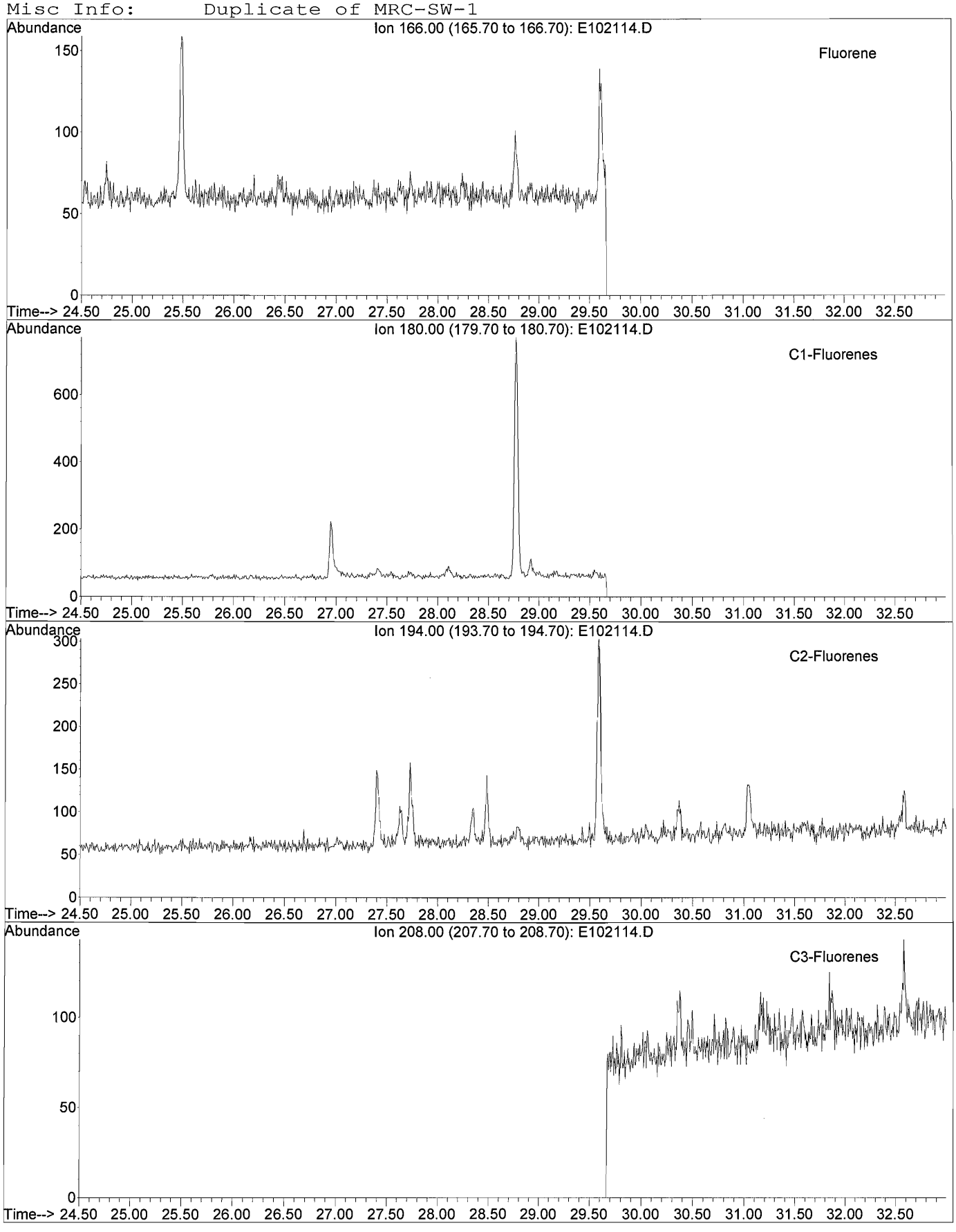
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

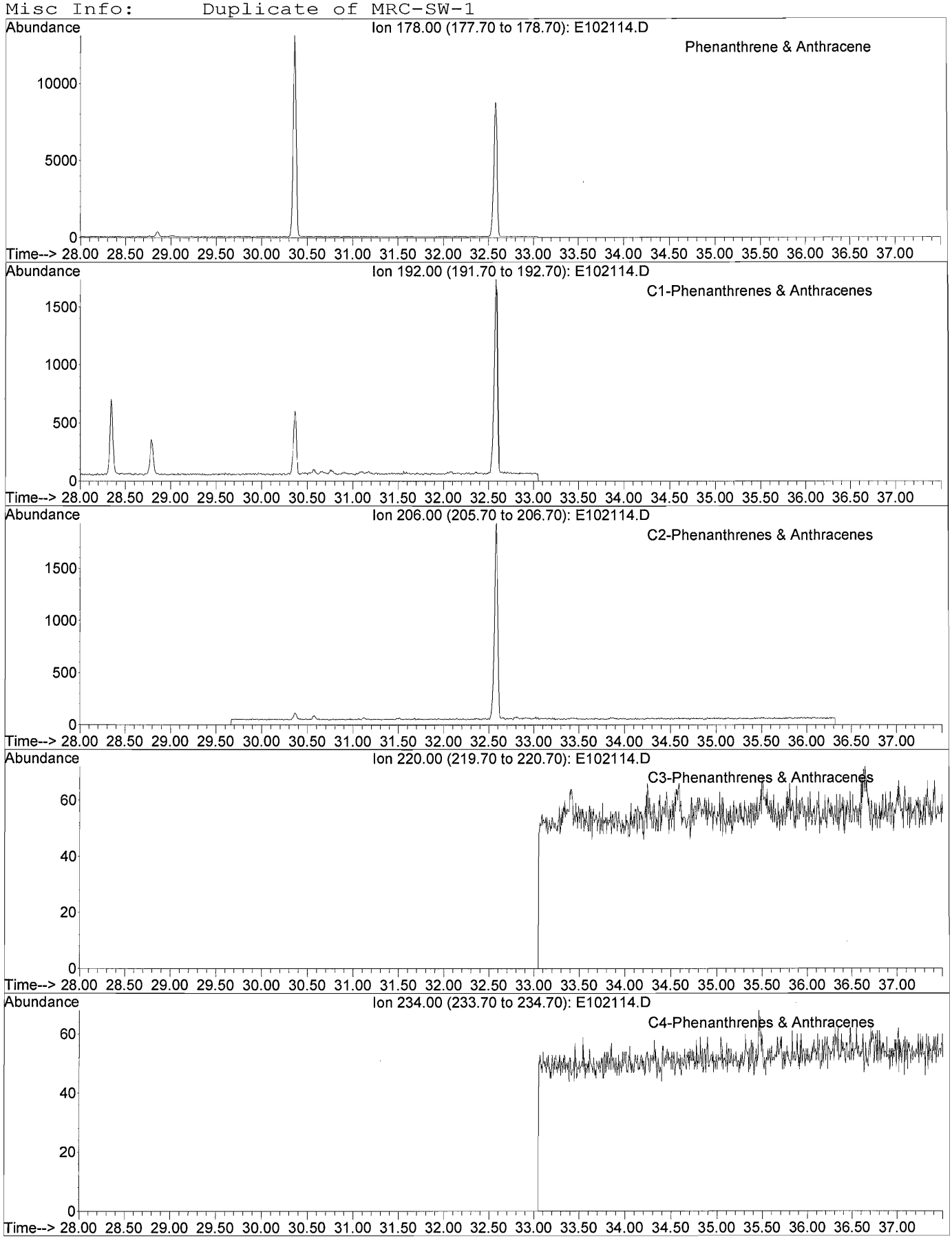
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

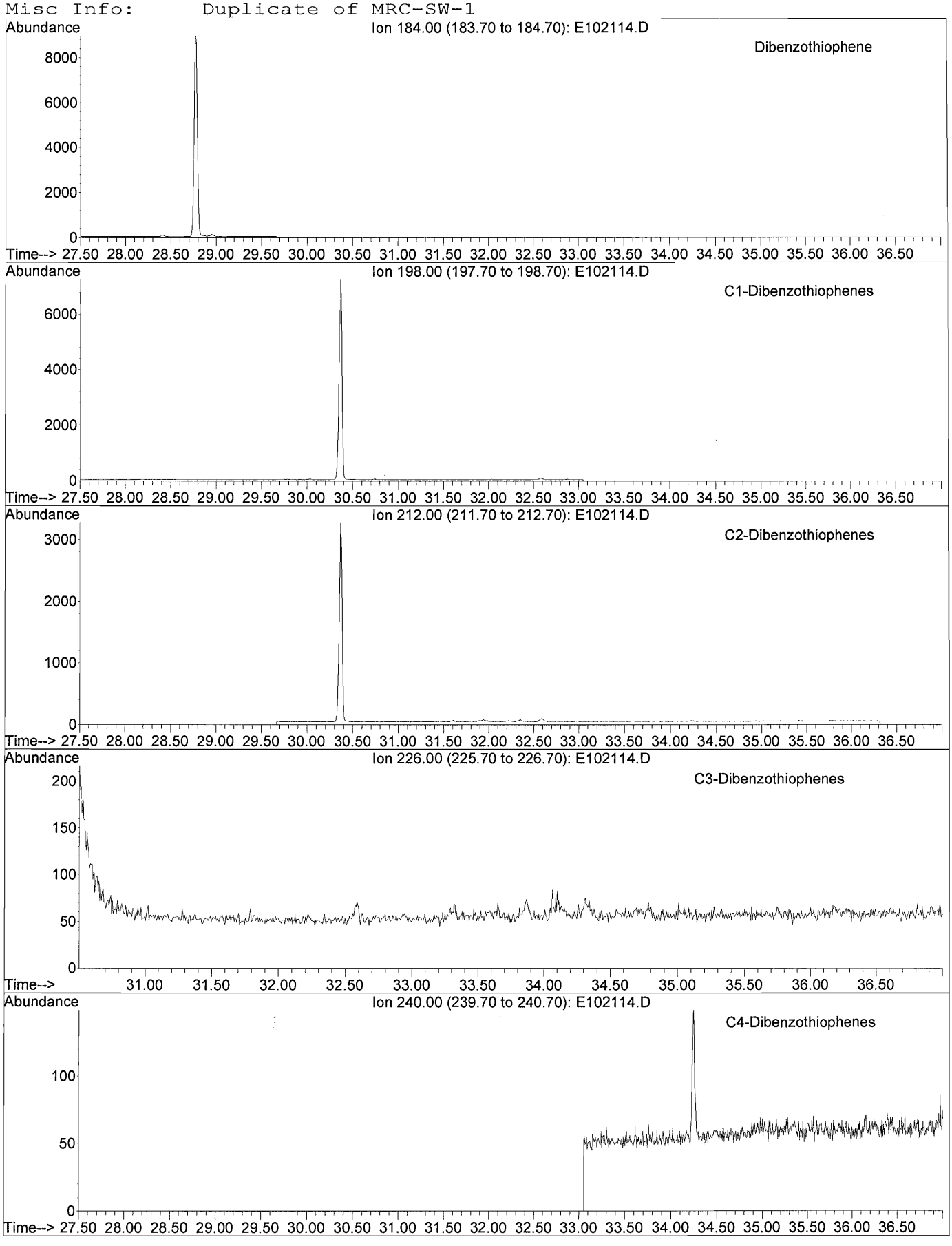
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

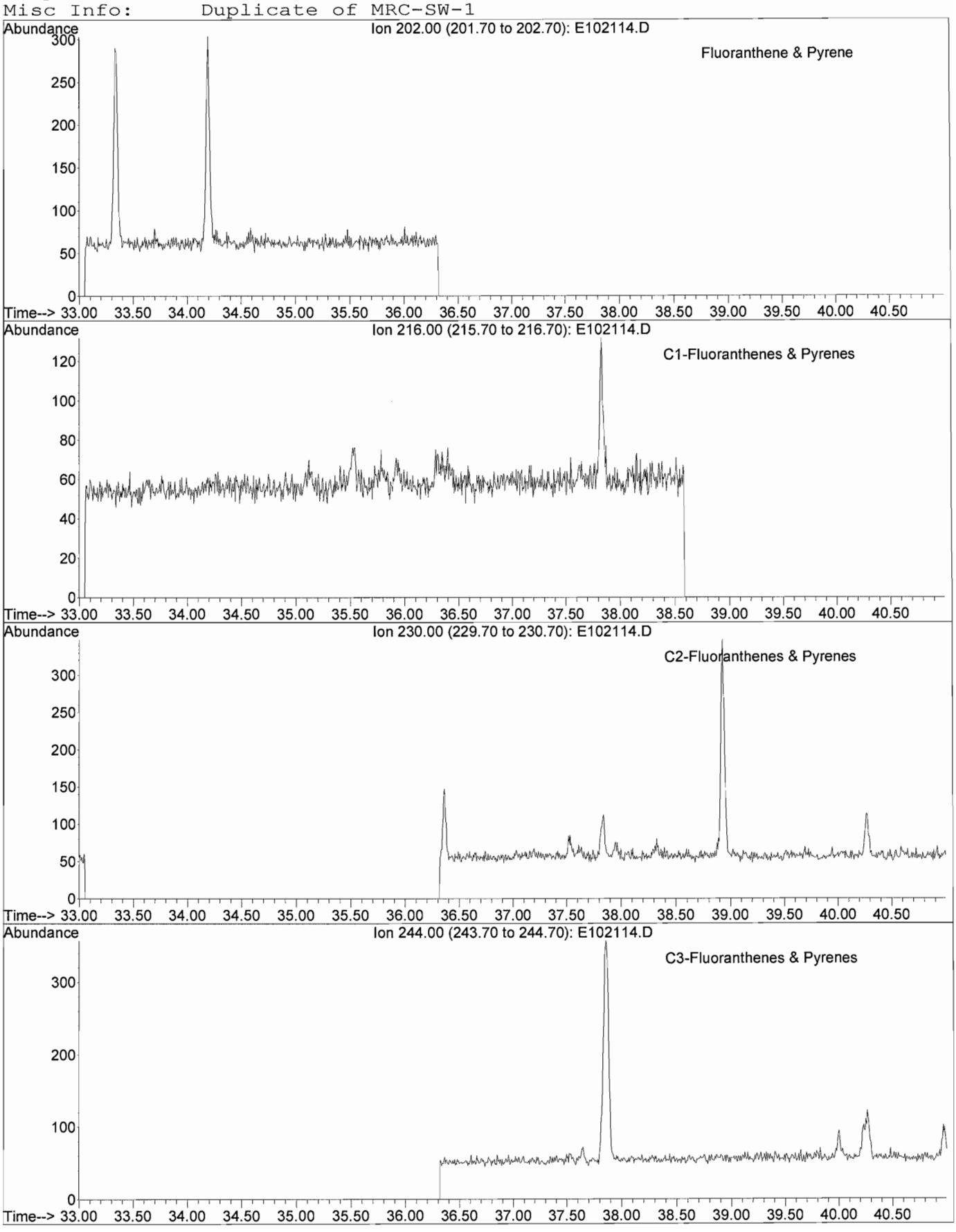
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

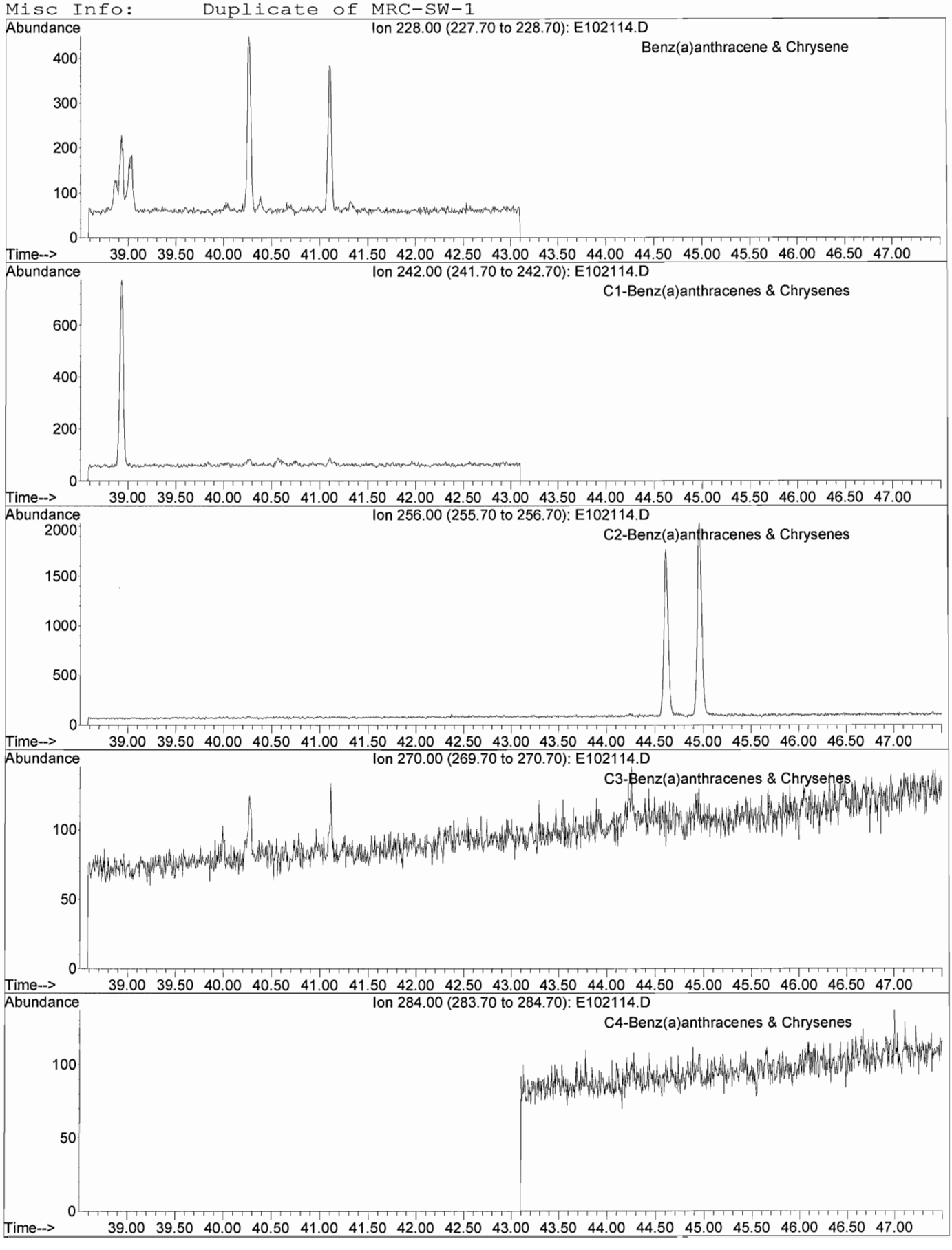
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

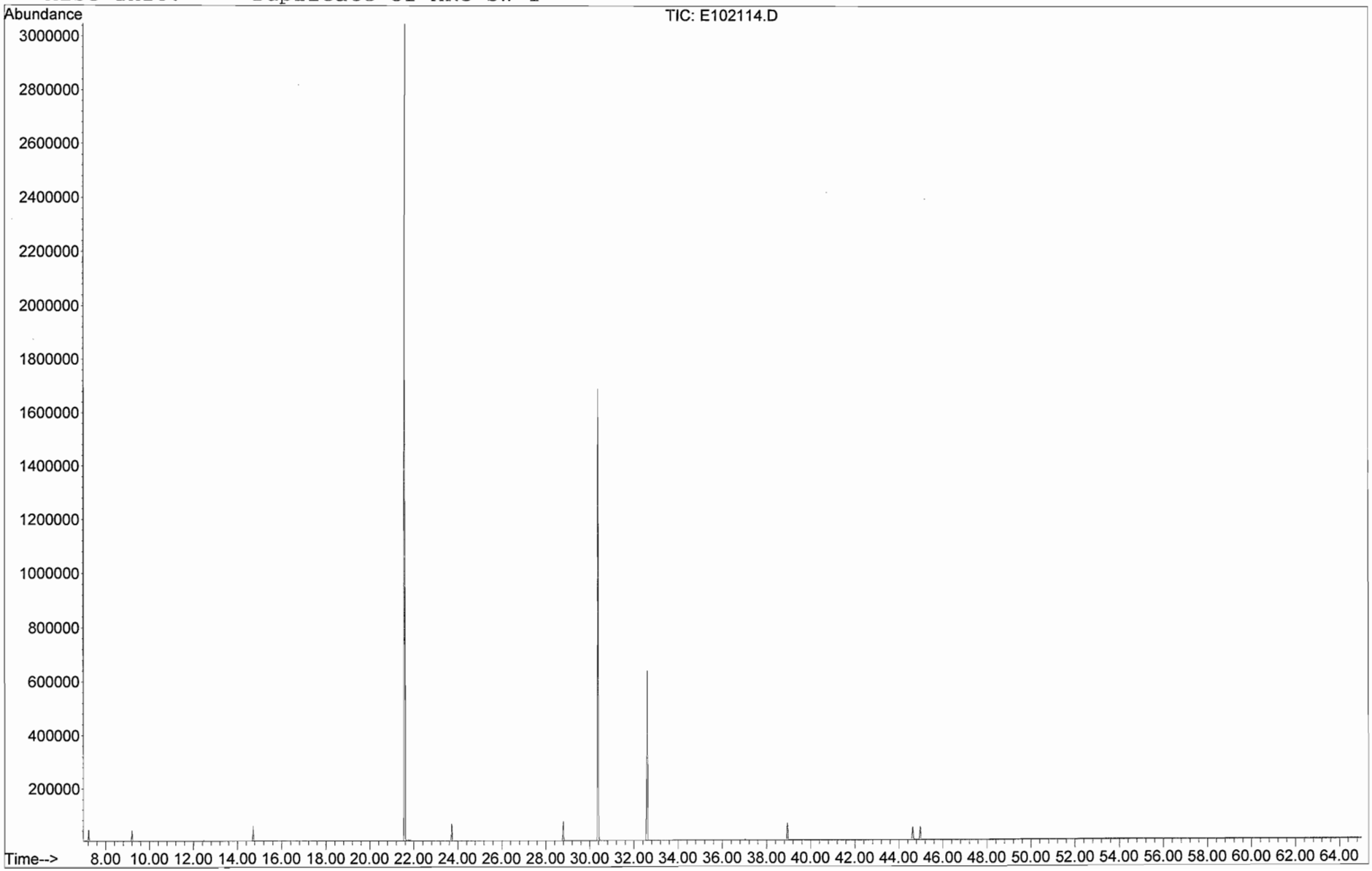
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

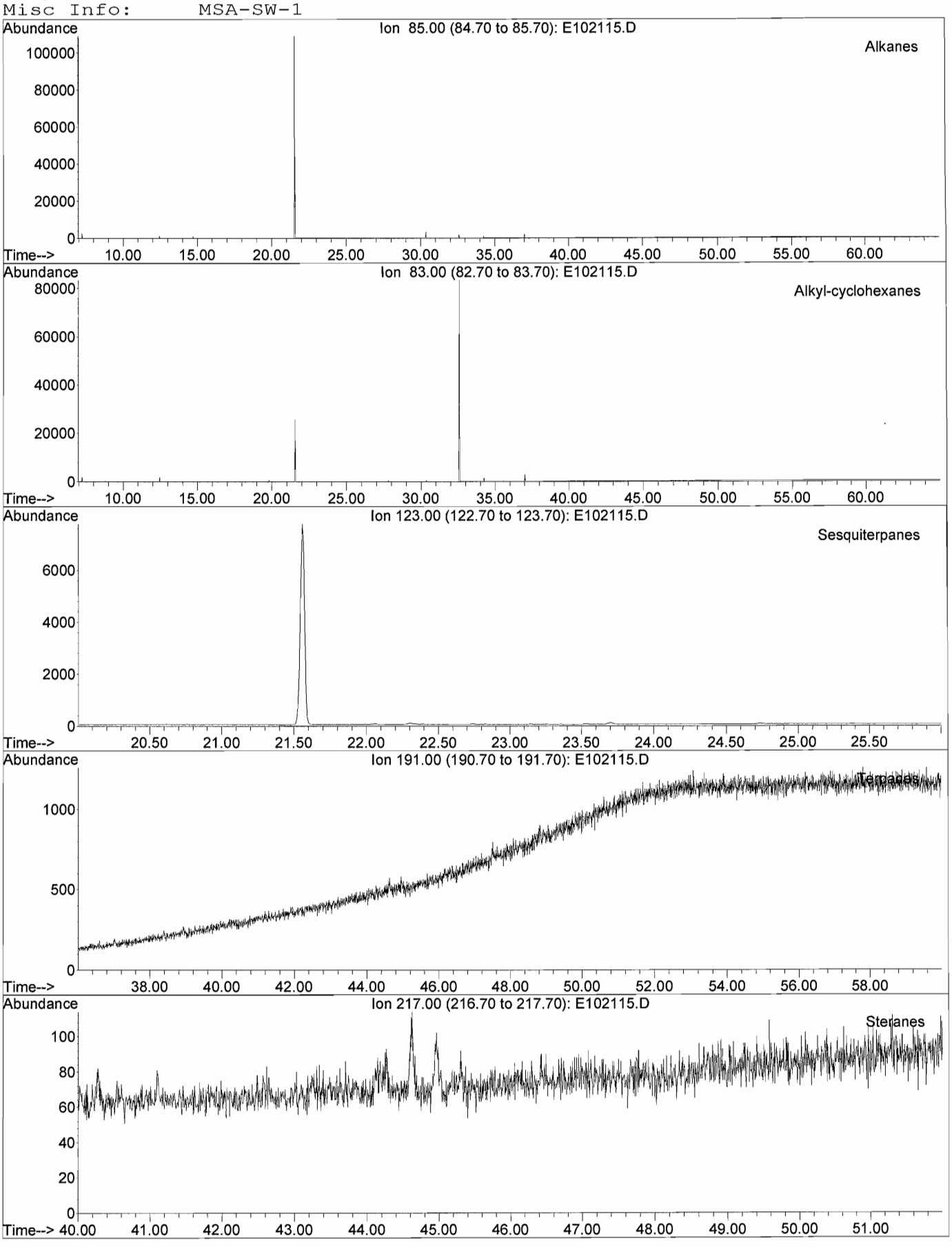
File: J:\1\DATA\E101021\E102114.D
Date Acquired: 22 Oct 2010 3:19 am
Sample Name: TT101015-01DUP
Misc Info: Duplicate of MRC-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

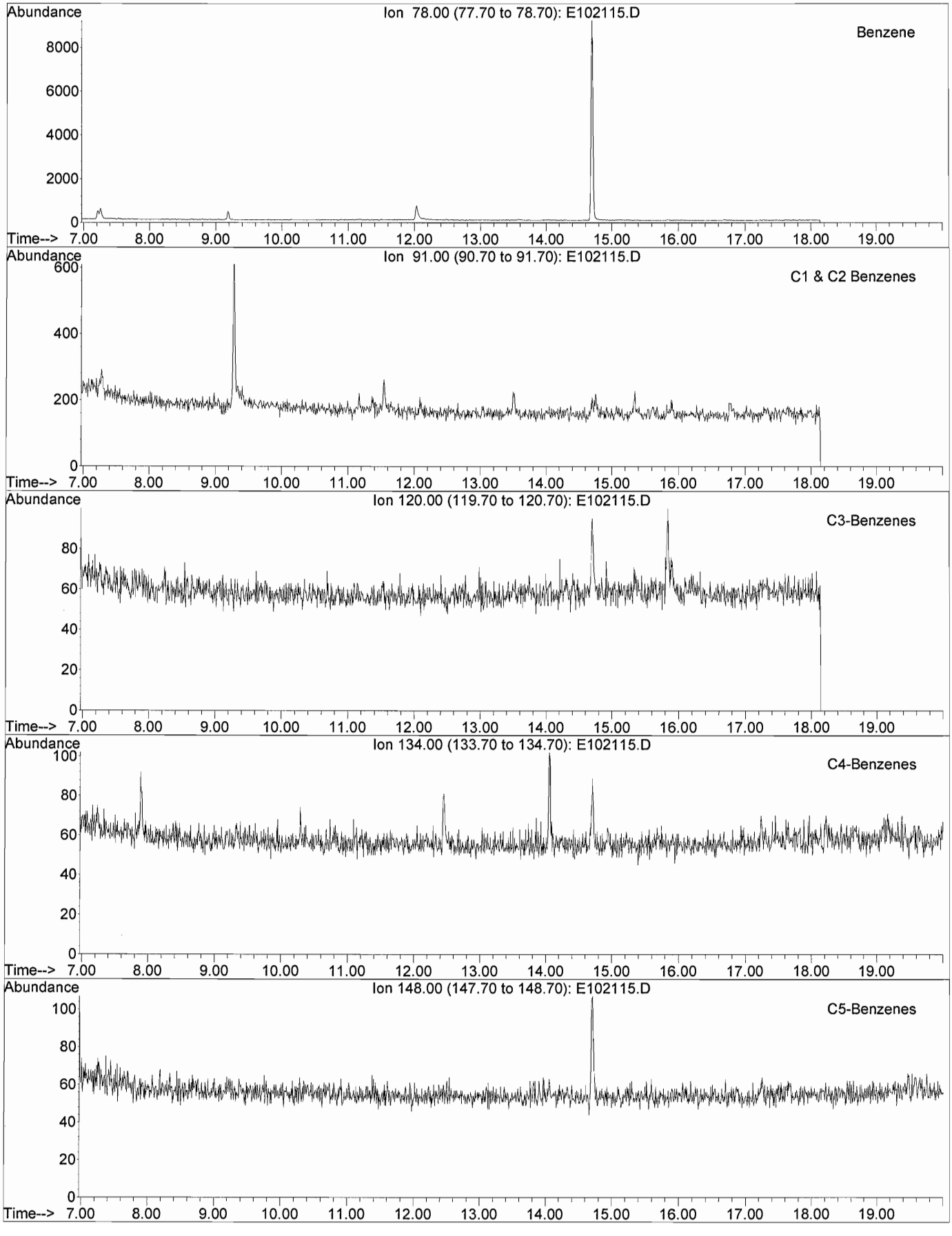
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

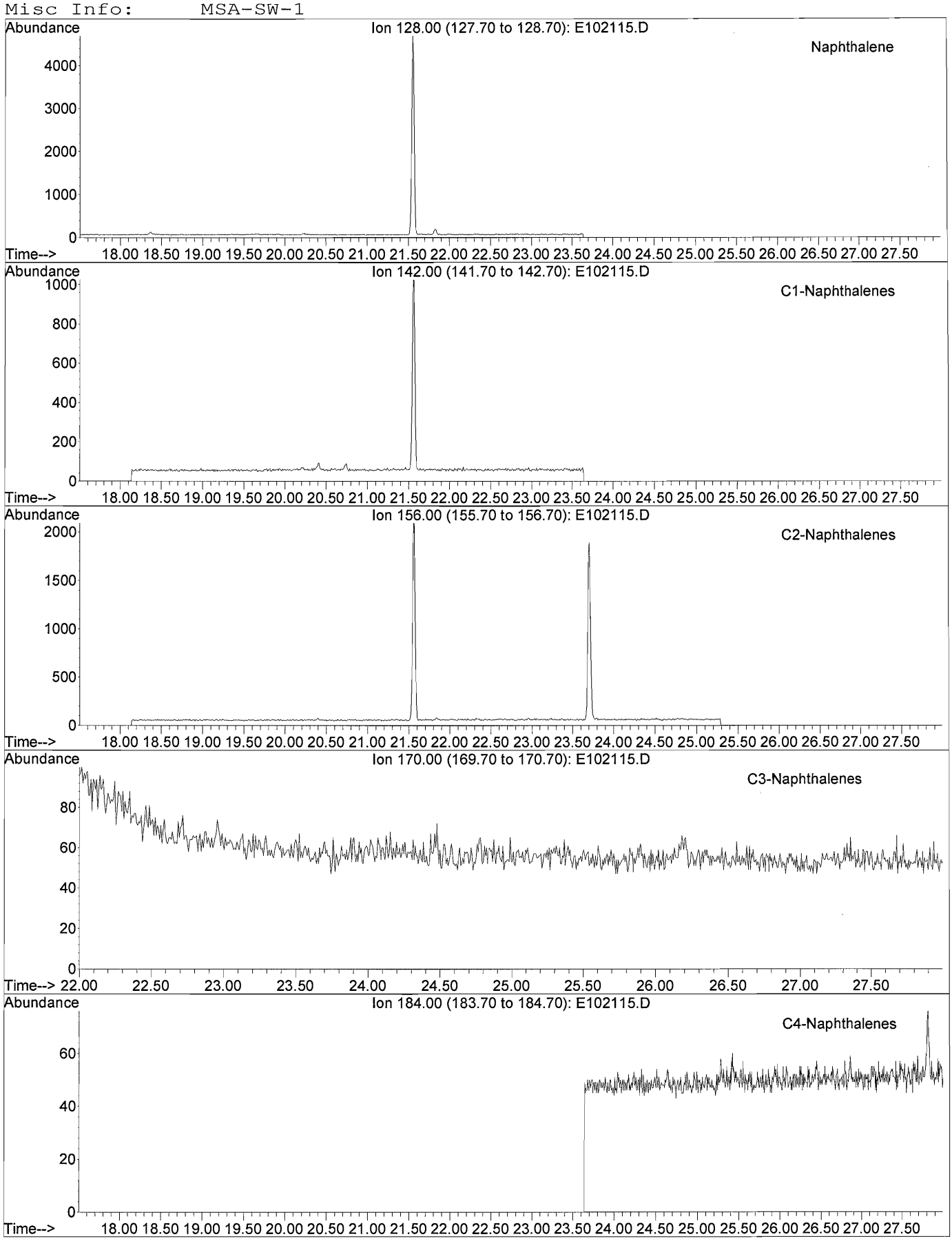
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

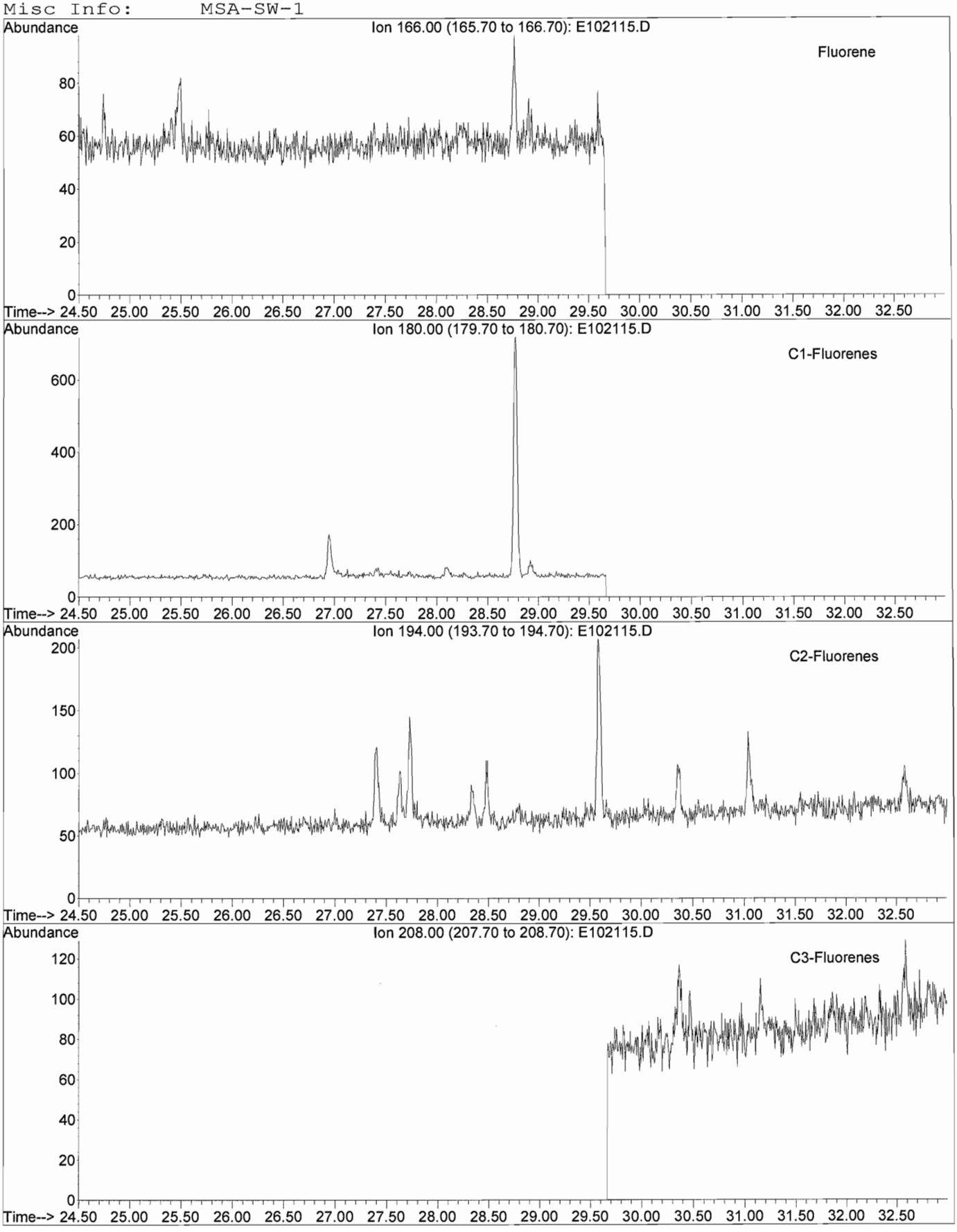
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

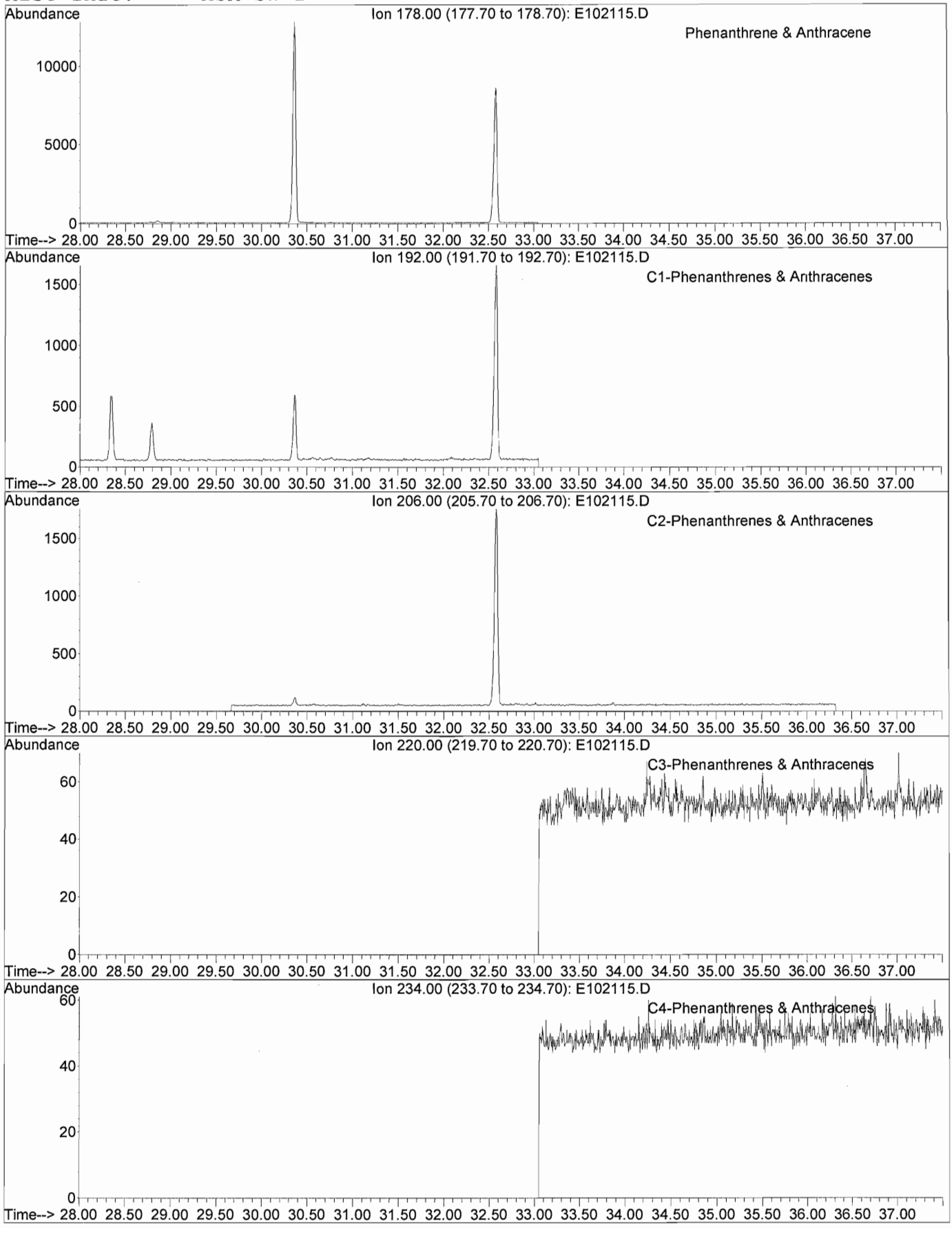
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

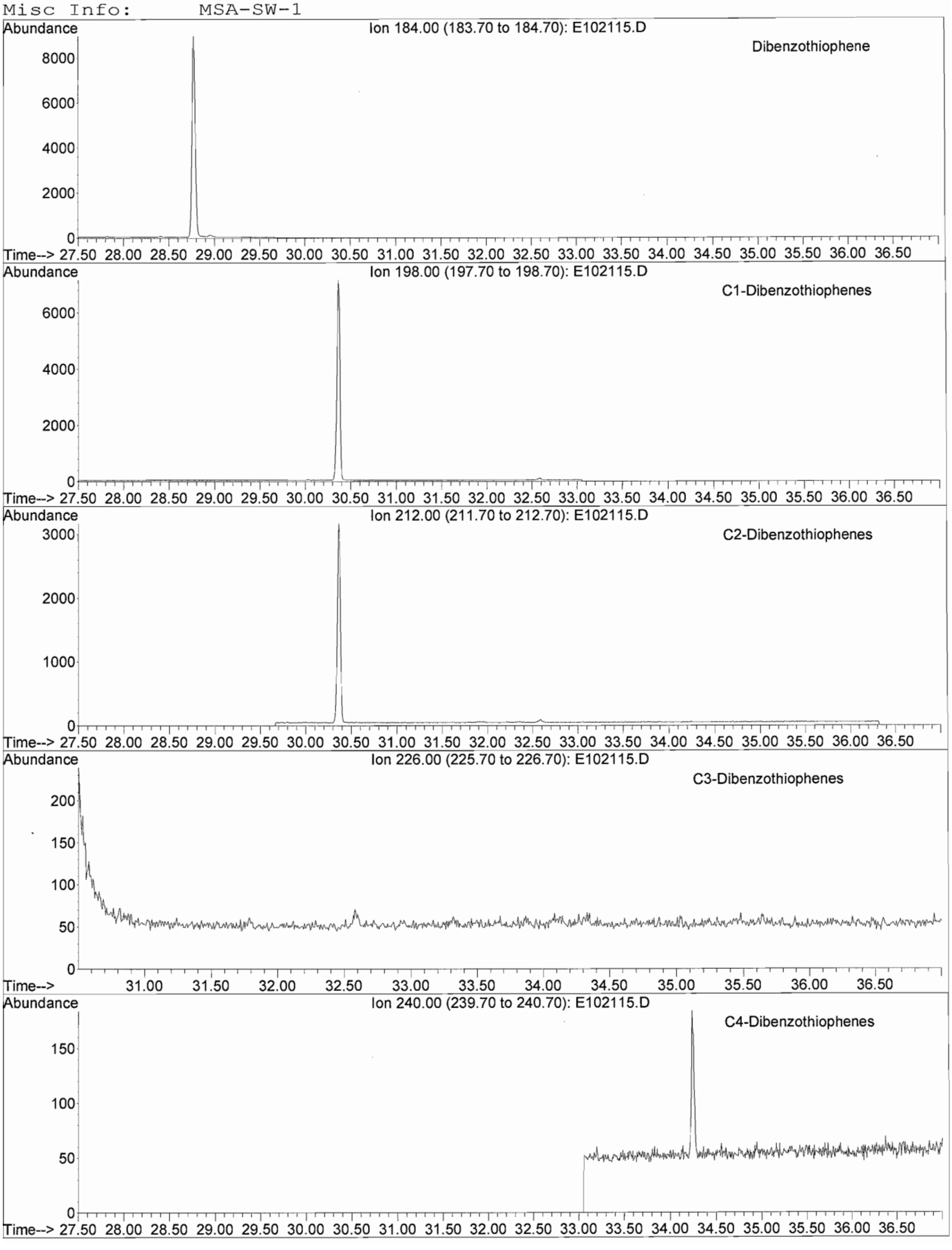
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101021\E102115.D
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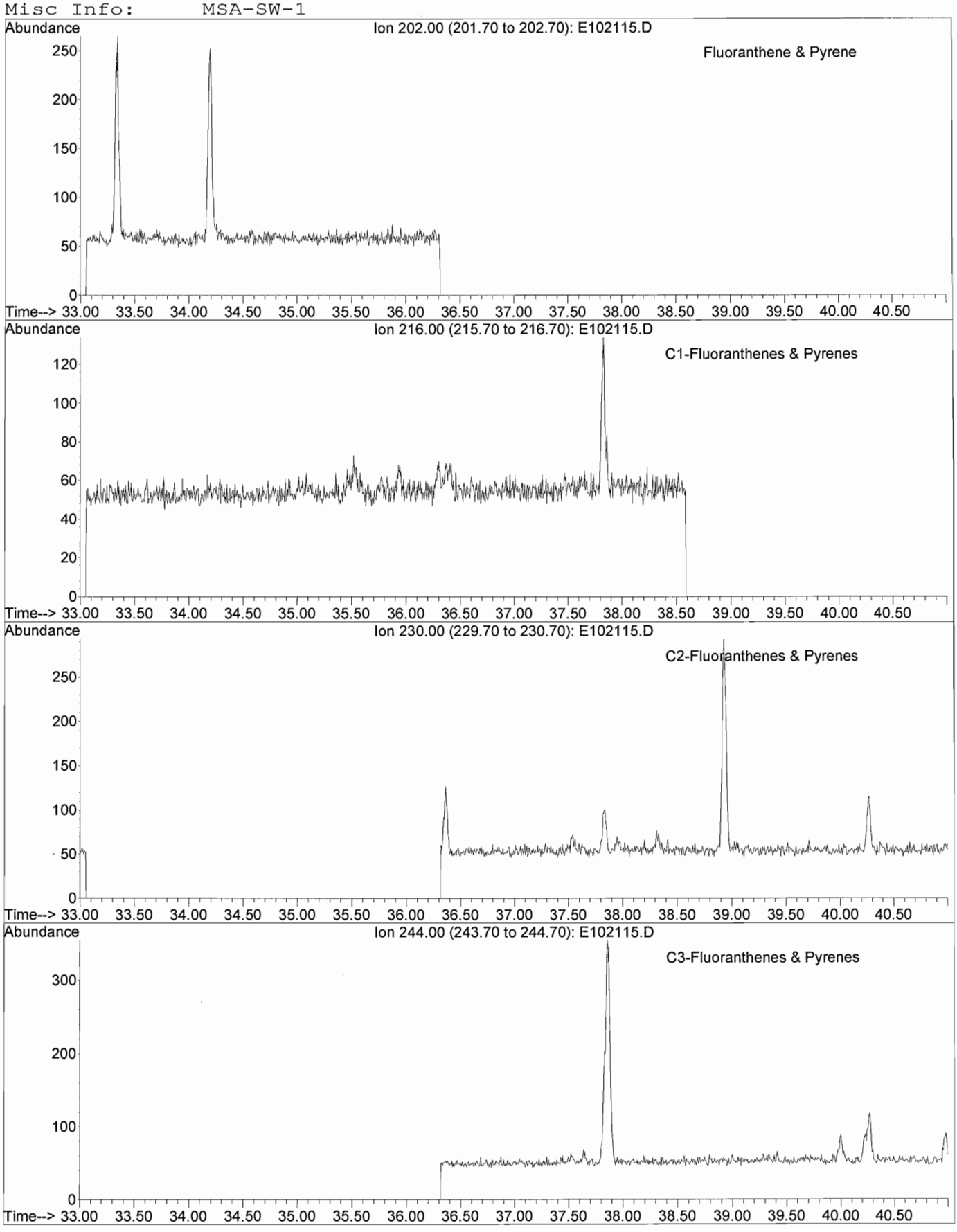
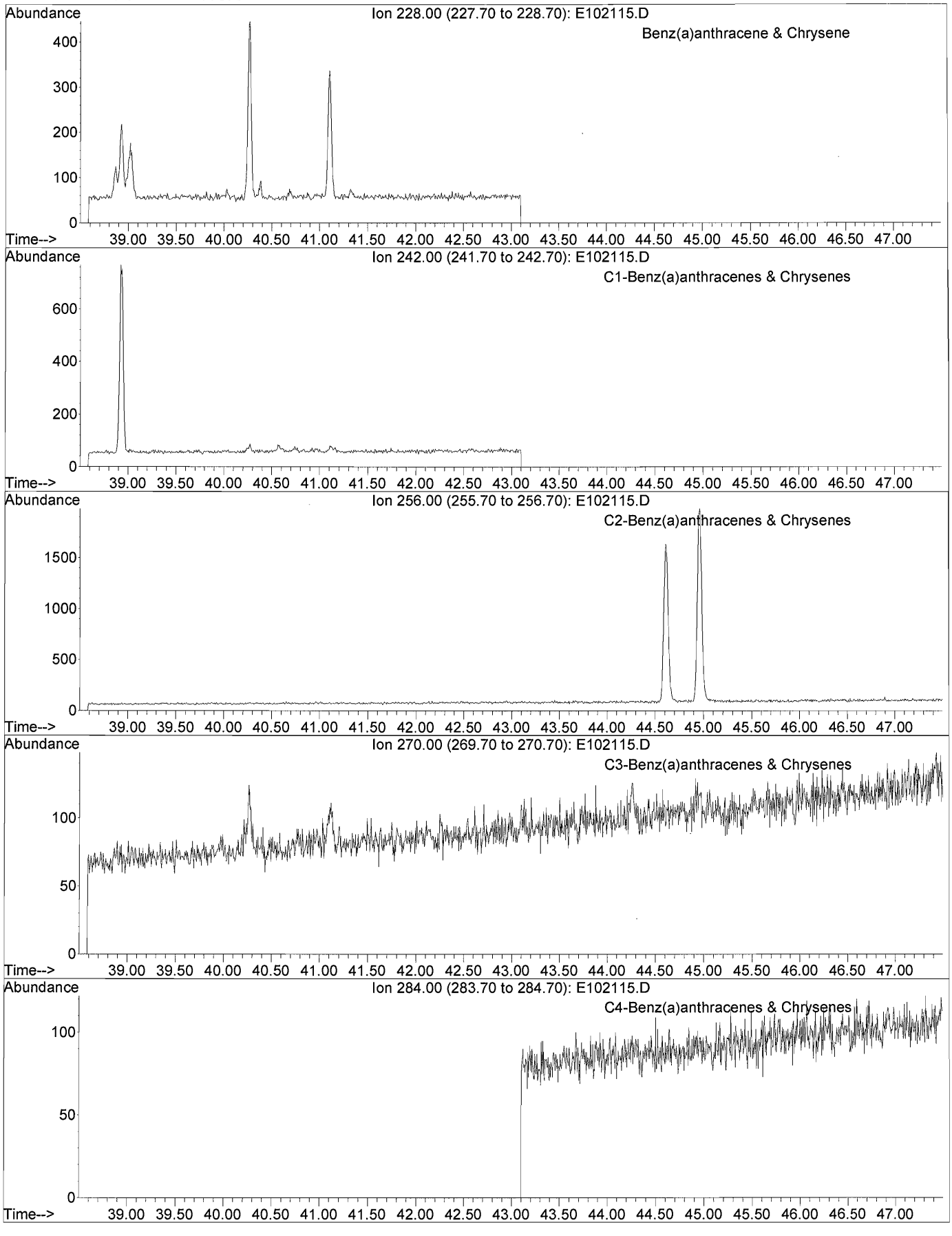
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

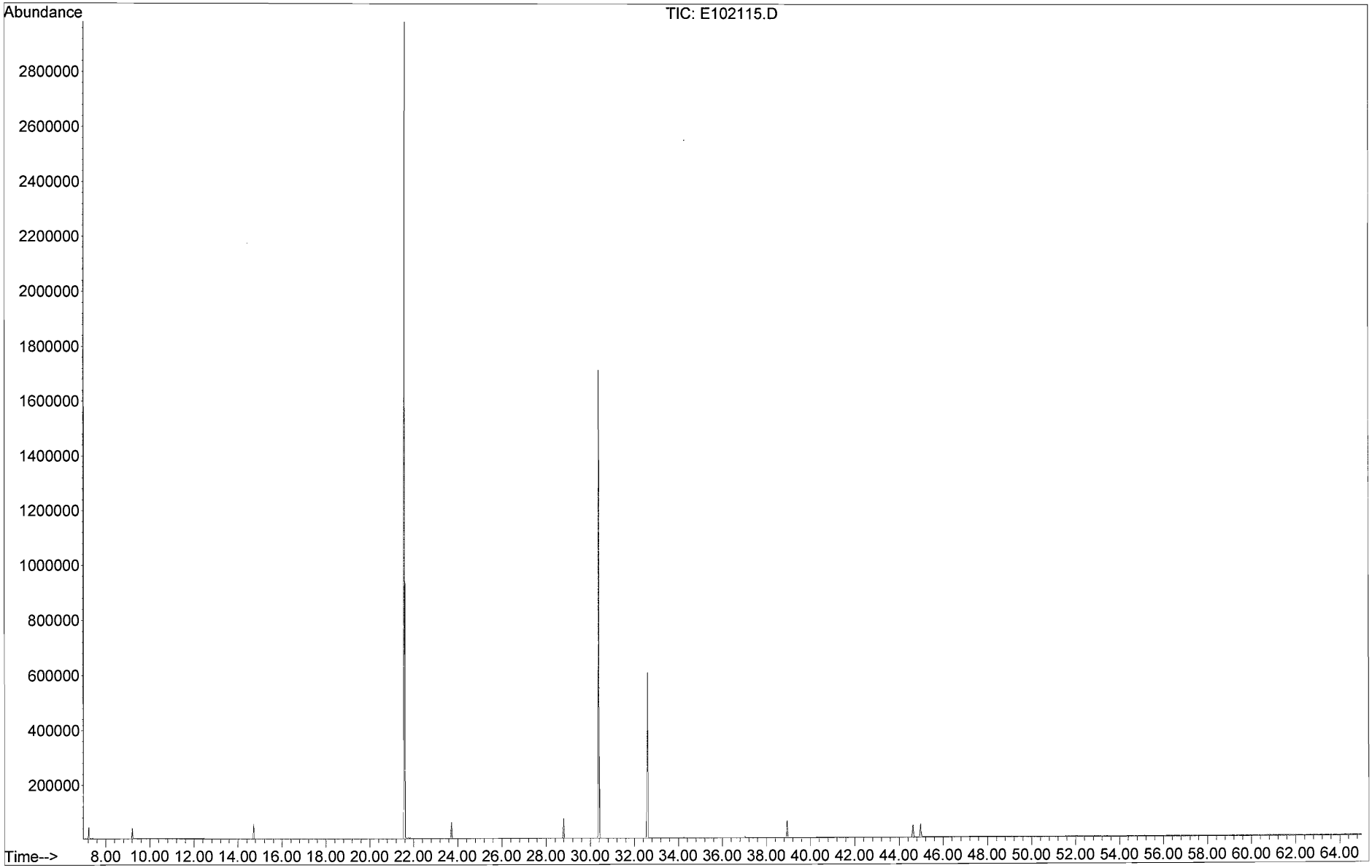
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

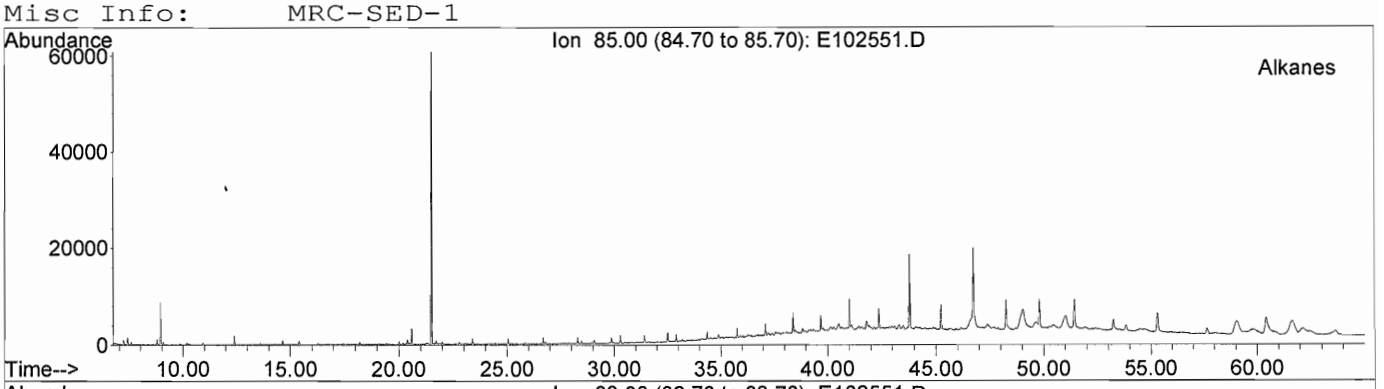
File: J:\1\DATA\E101021\E102115.D
Date Acquired: 22 Oct 2010 4:35 am
Sample Name: TT101015-02
Misc Info: MSA-SW-1

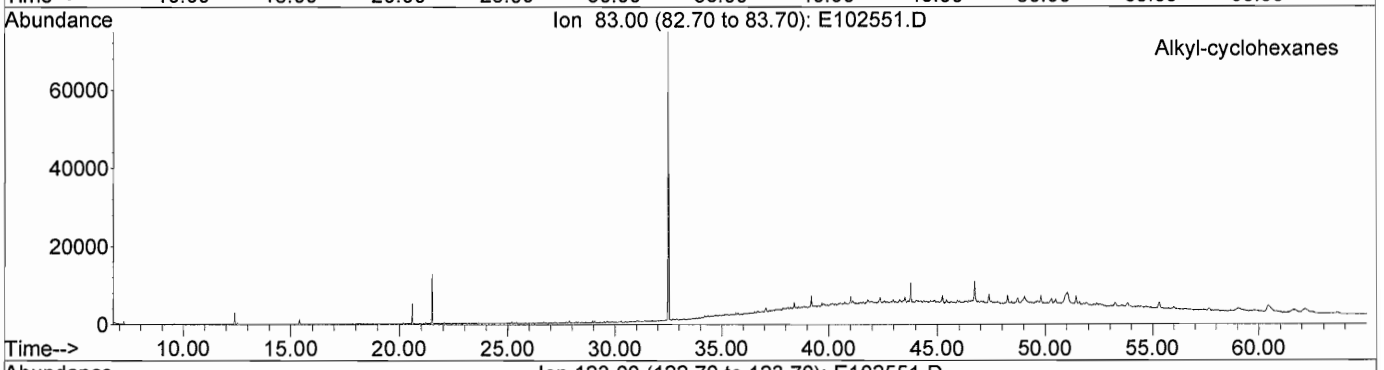


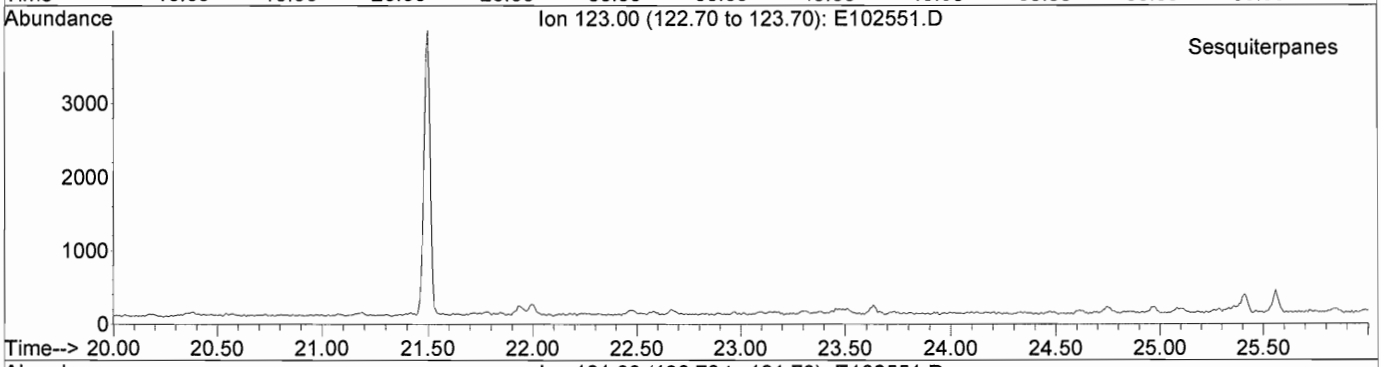
META Environmental, Inc.

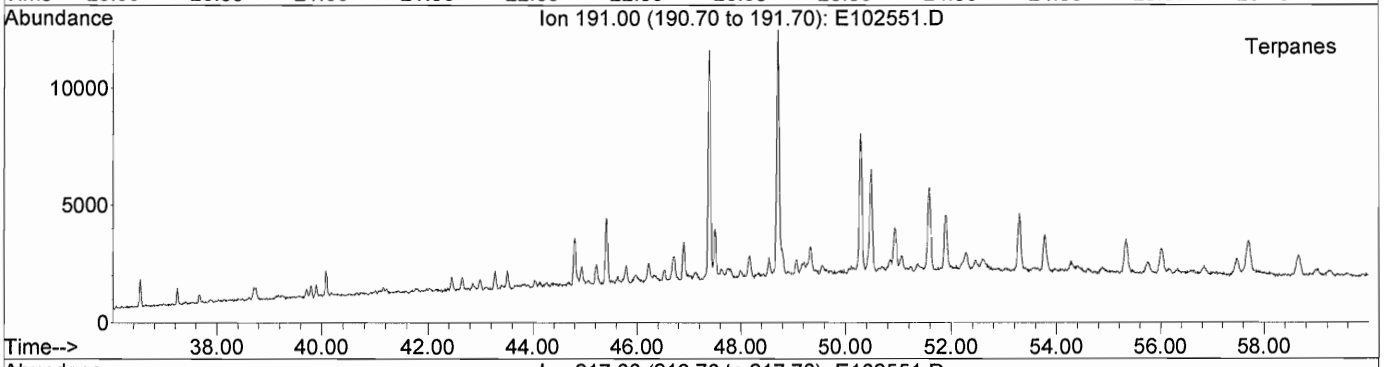
GC/MS EXTRACTED ION CHROMATOGRAM

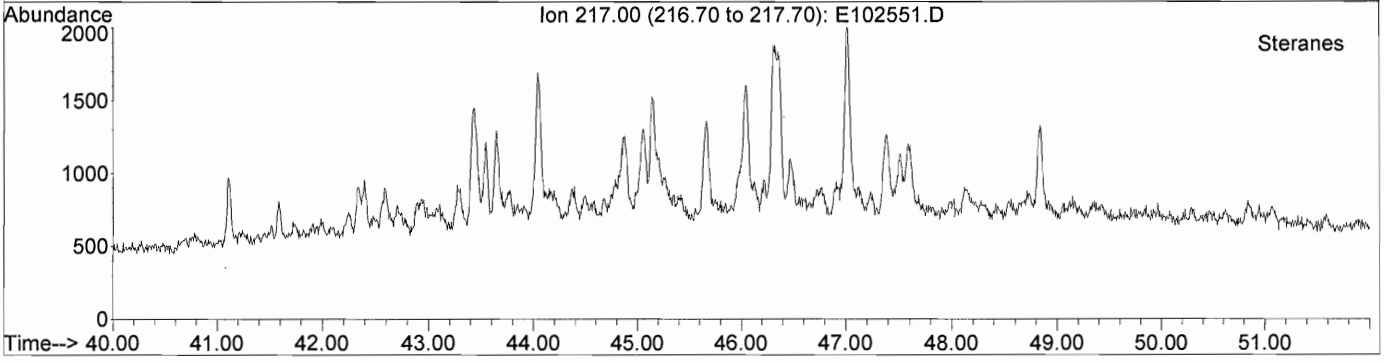
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1







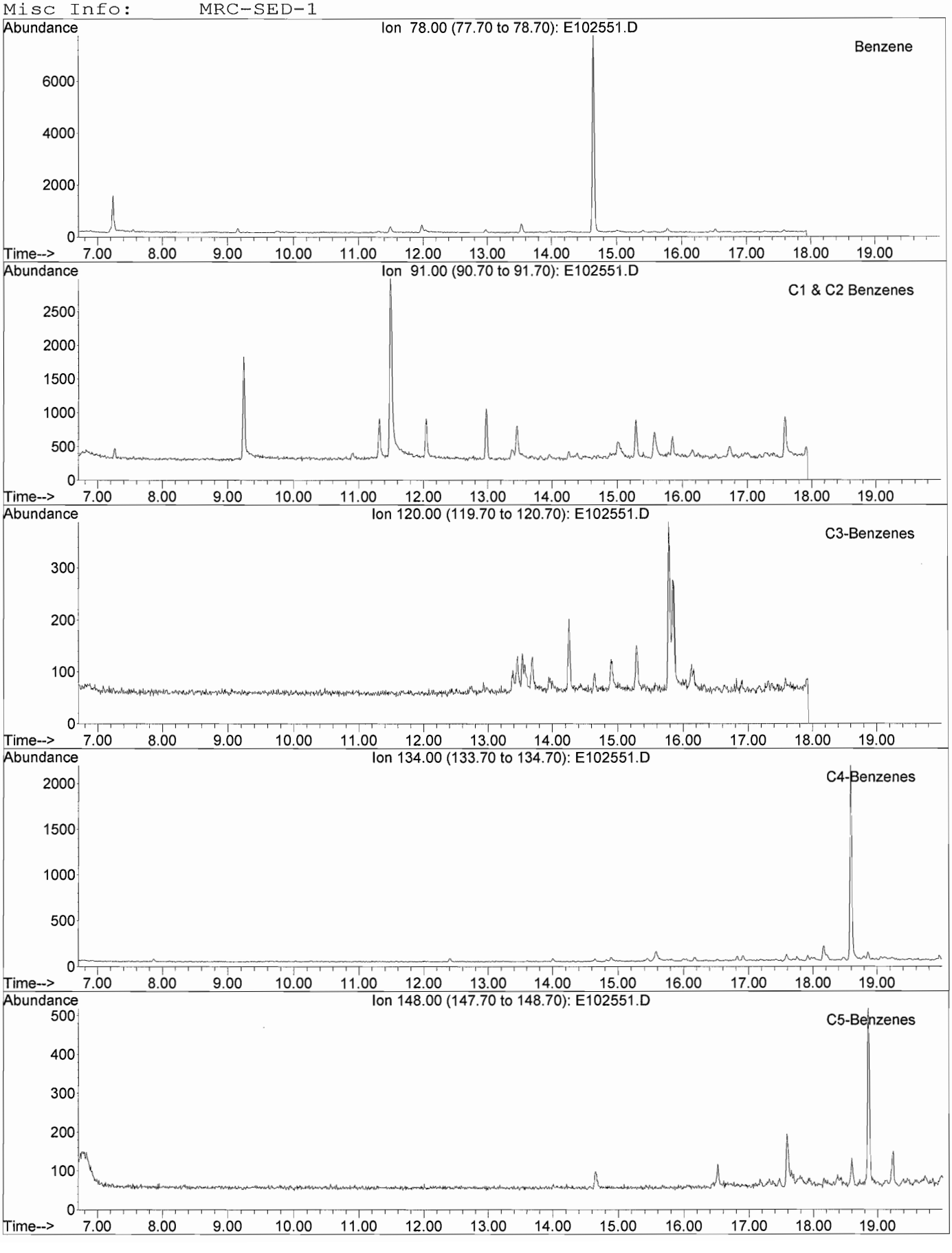




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101025\E102551.D
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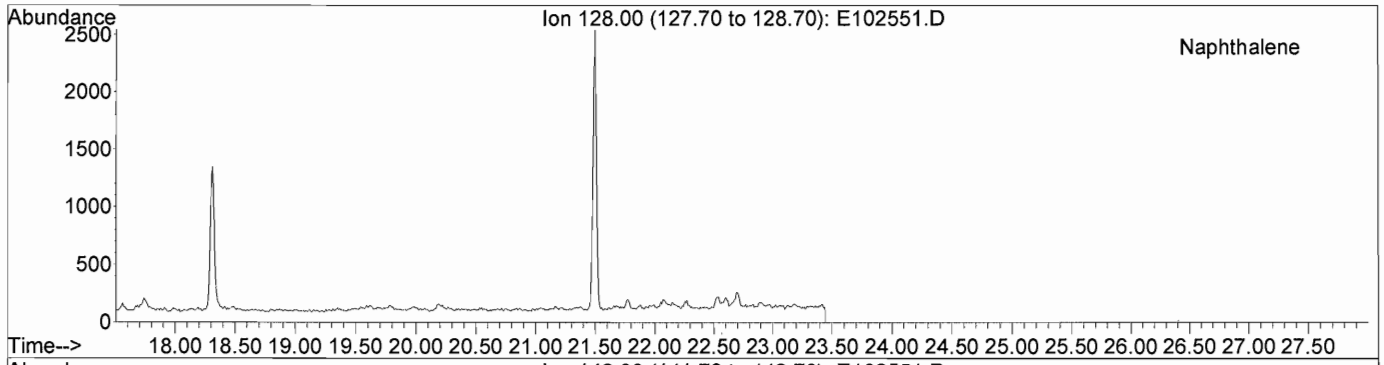
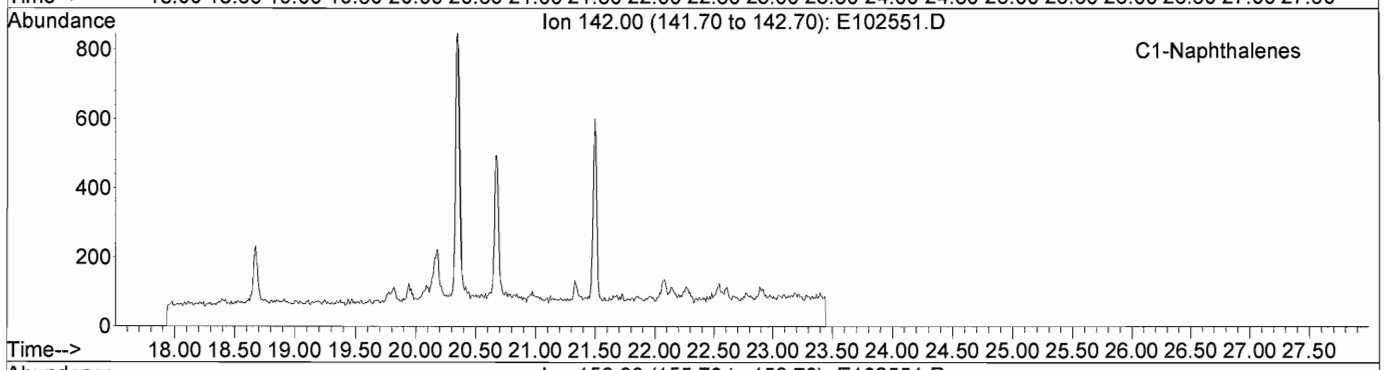
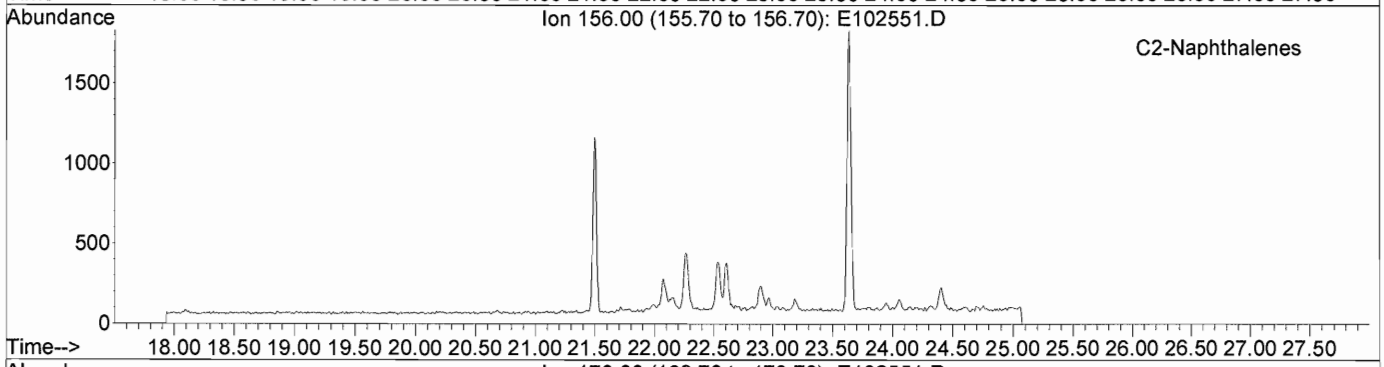
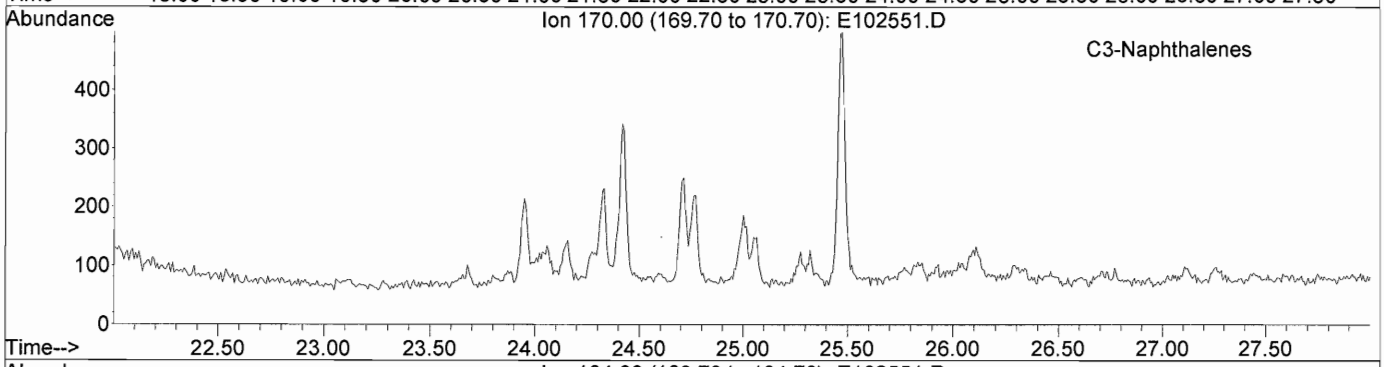
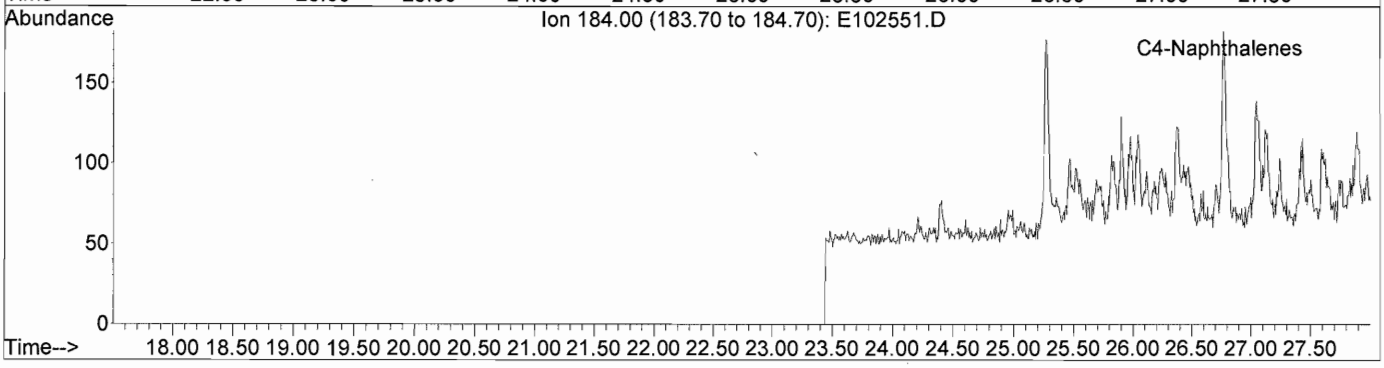
Sample Name: TT101015-03
Misc Info: MRC-SED-1







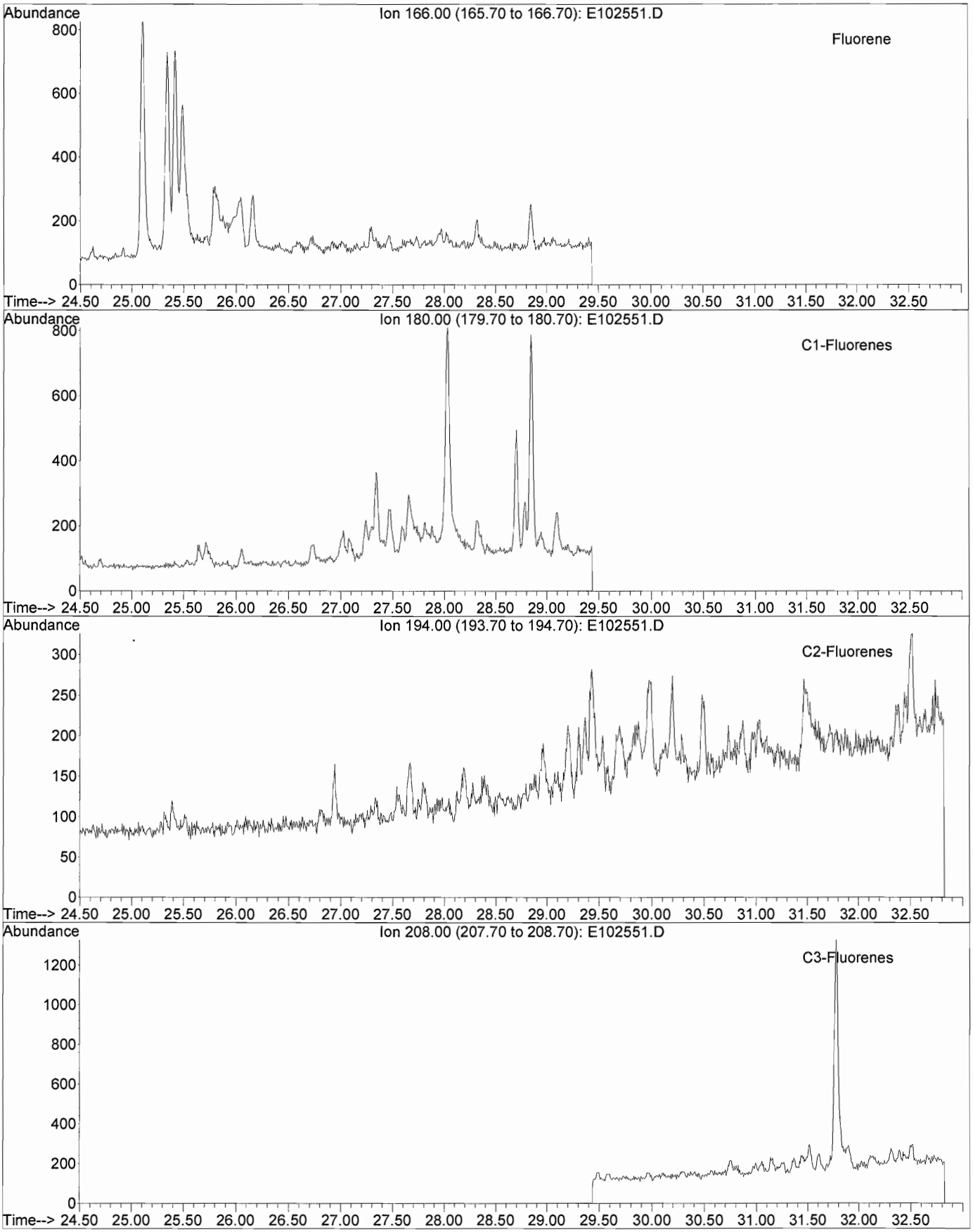




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

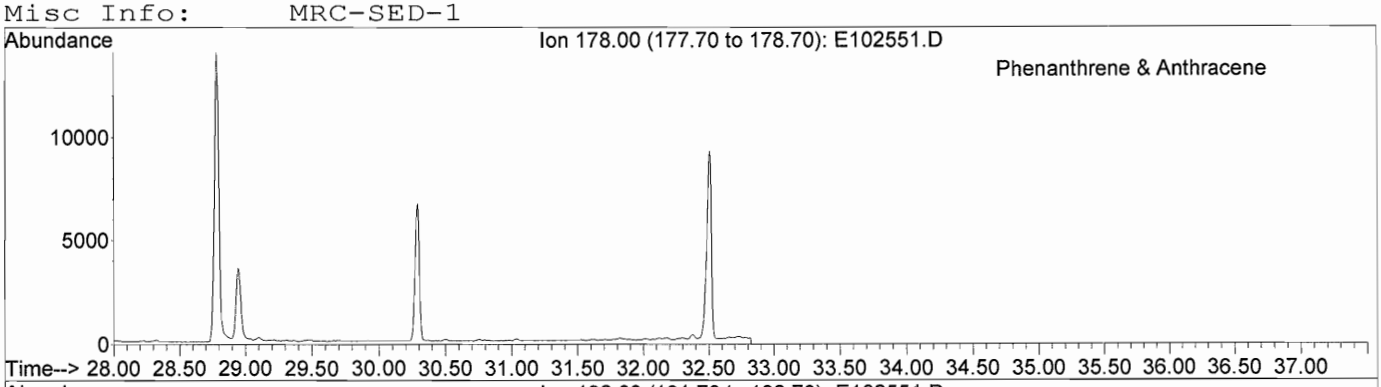
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1

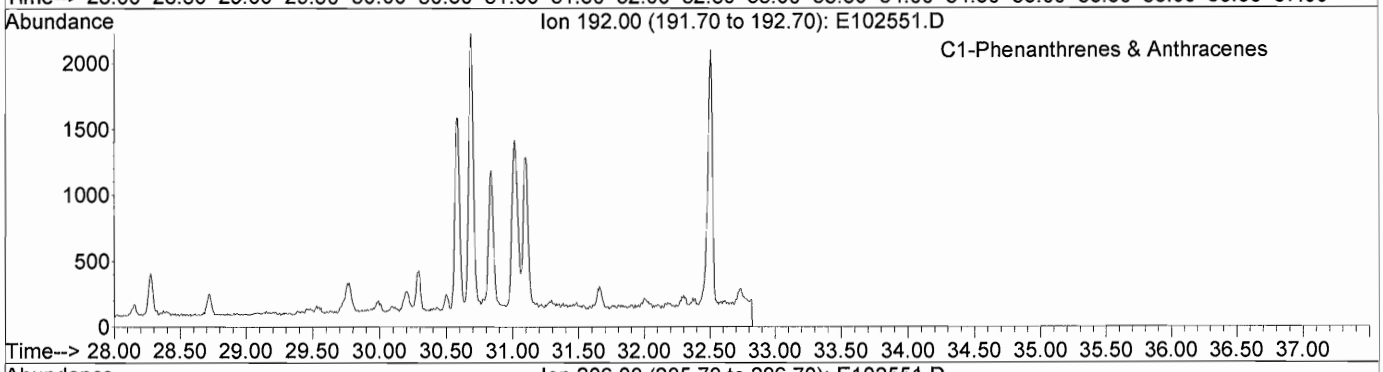


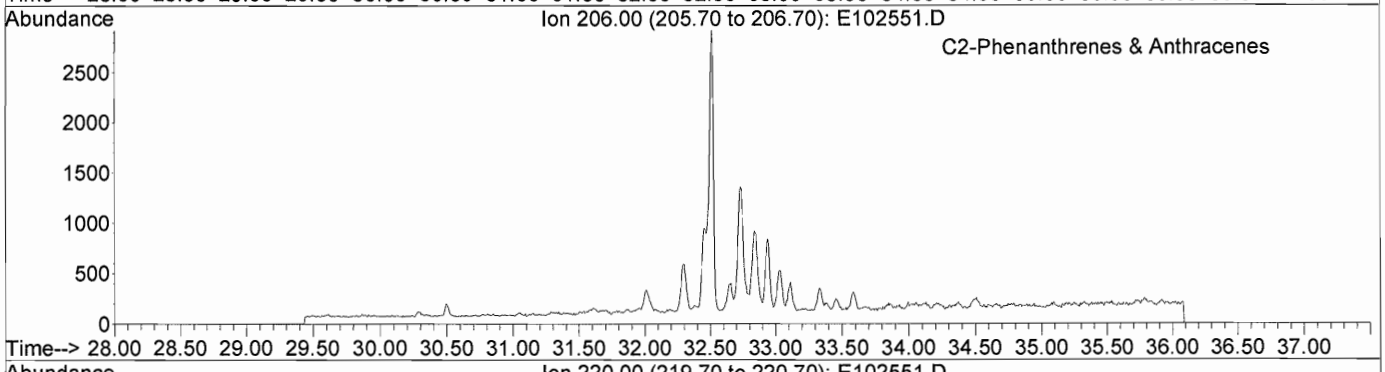
META Environmental, Inc.

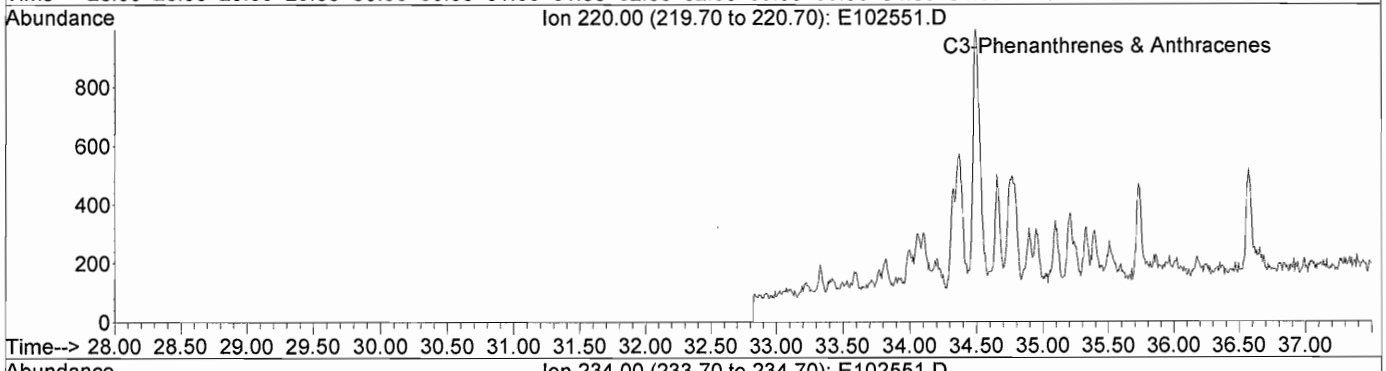
GC/MS EXTRACTED ION CHROMATOGRAM

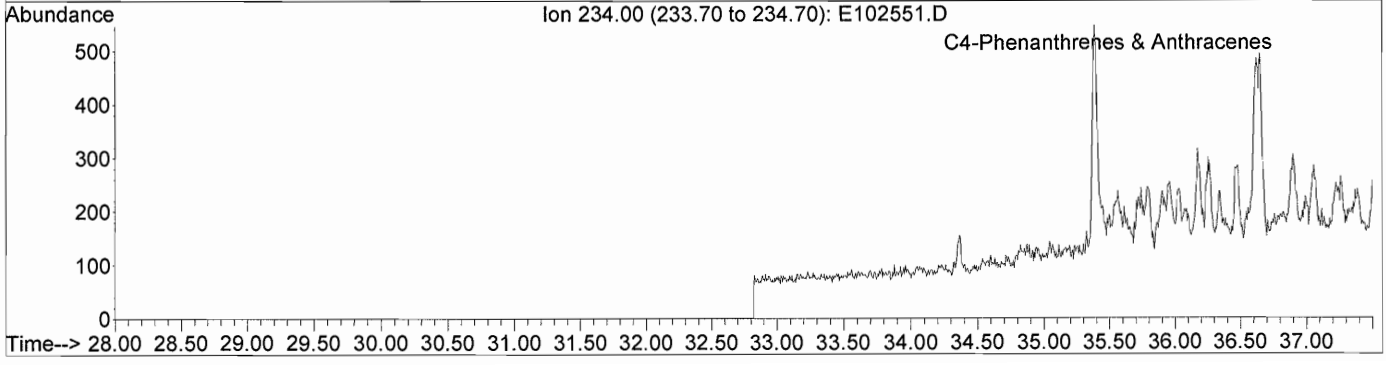
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1







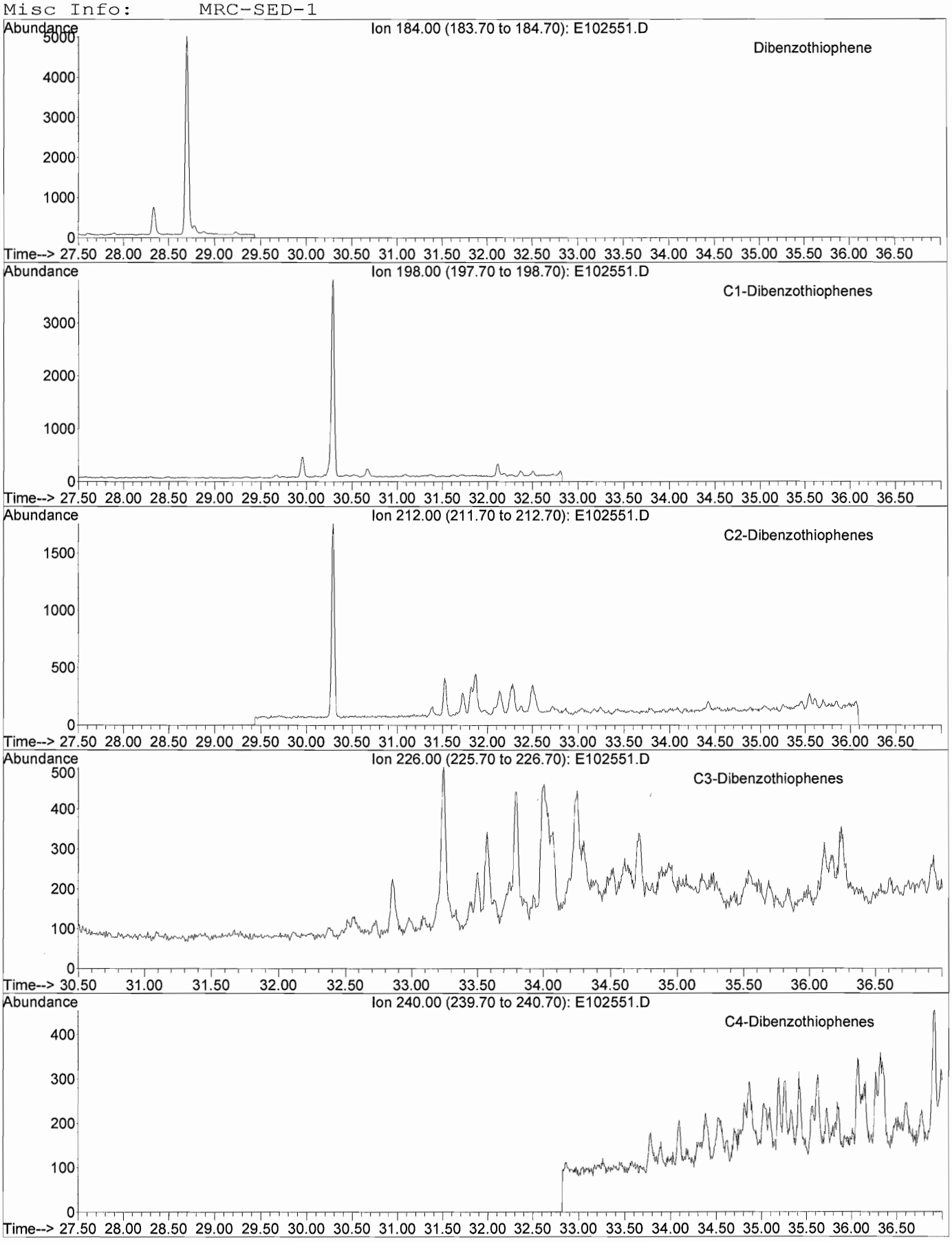




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

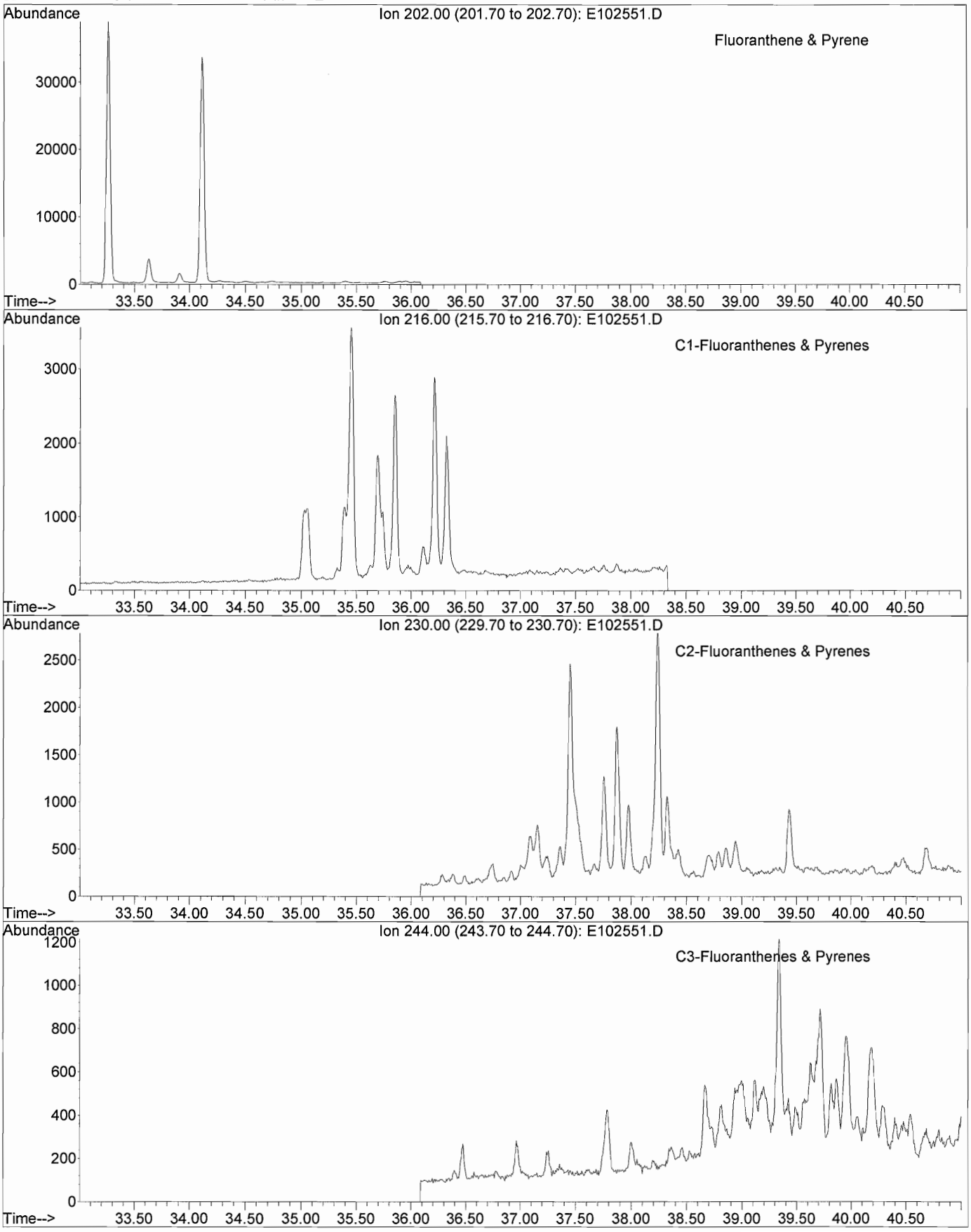
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

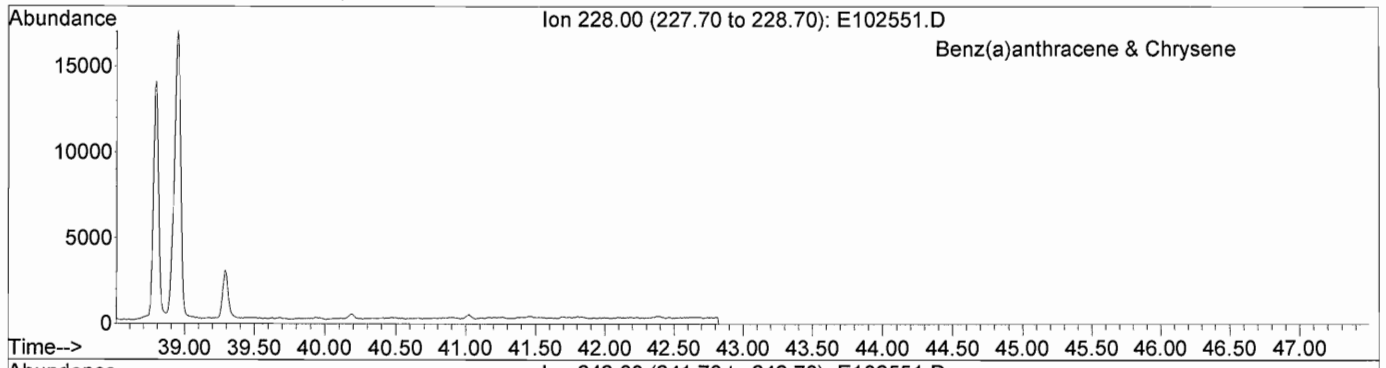
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1

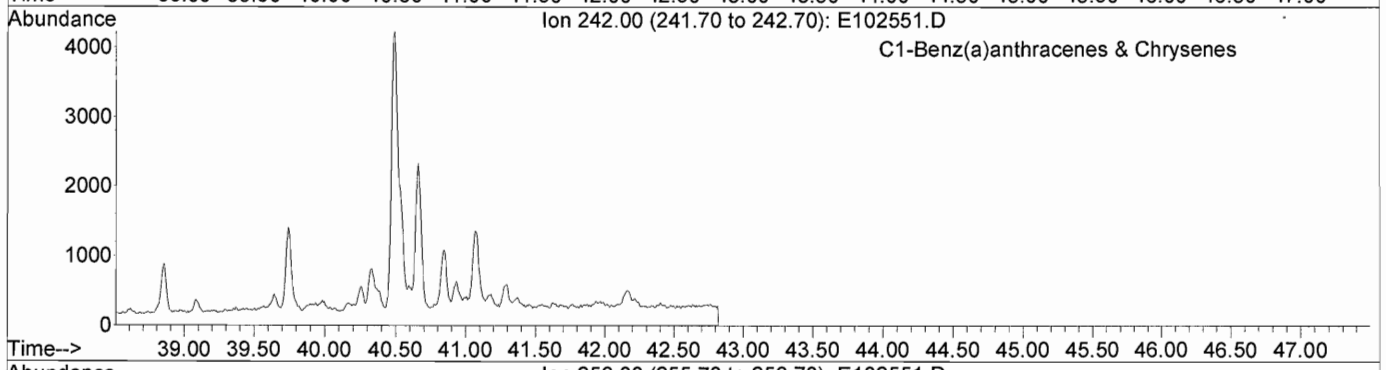


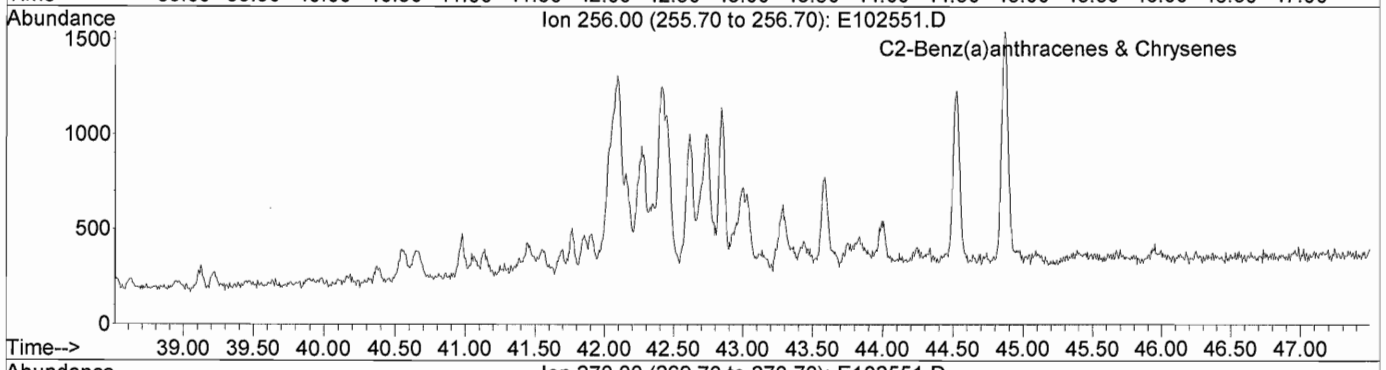
META Environmental, Inc.

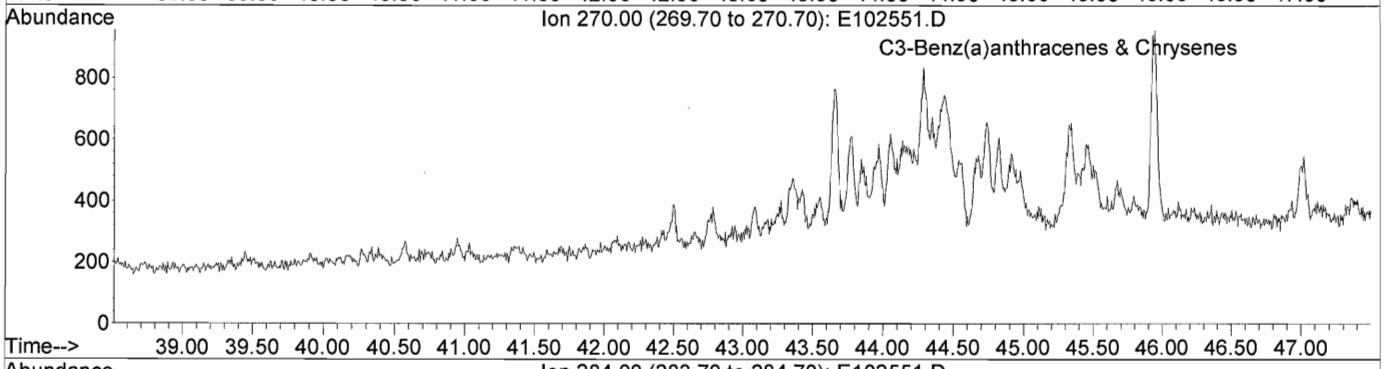
GC/MS EXTRACTED ION CHROMATOGRAM

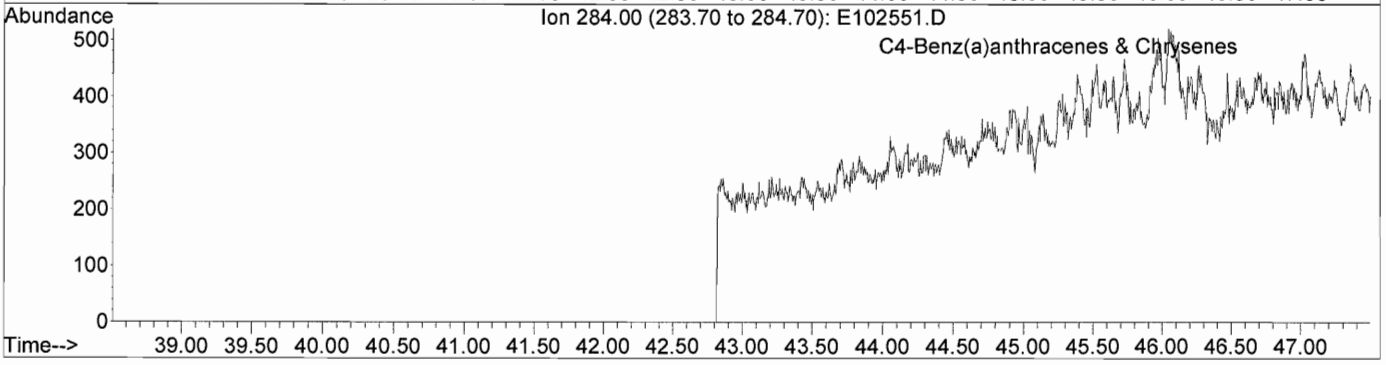
File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1







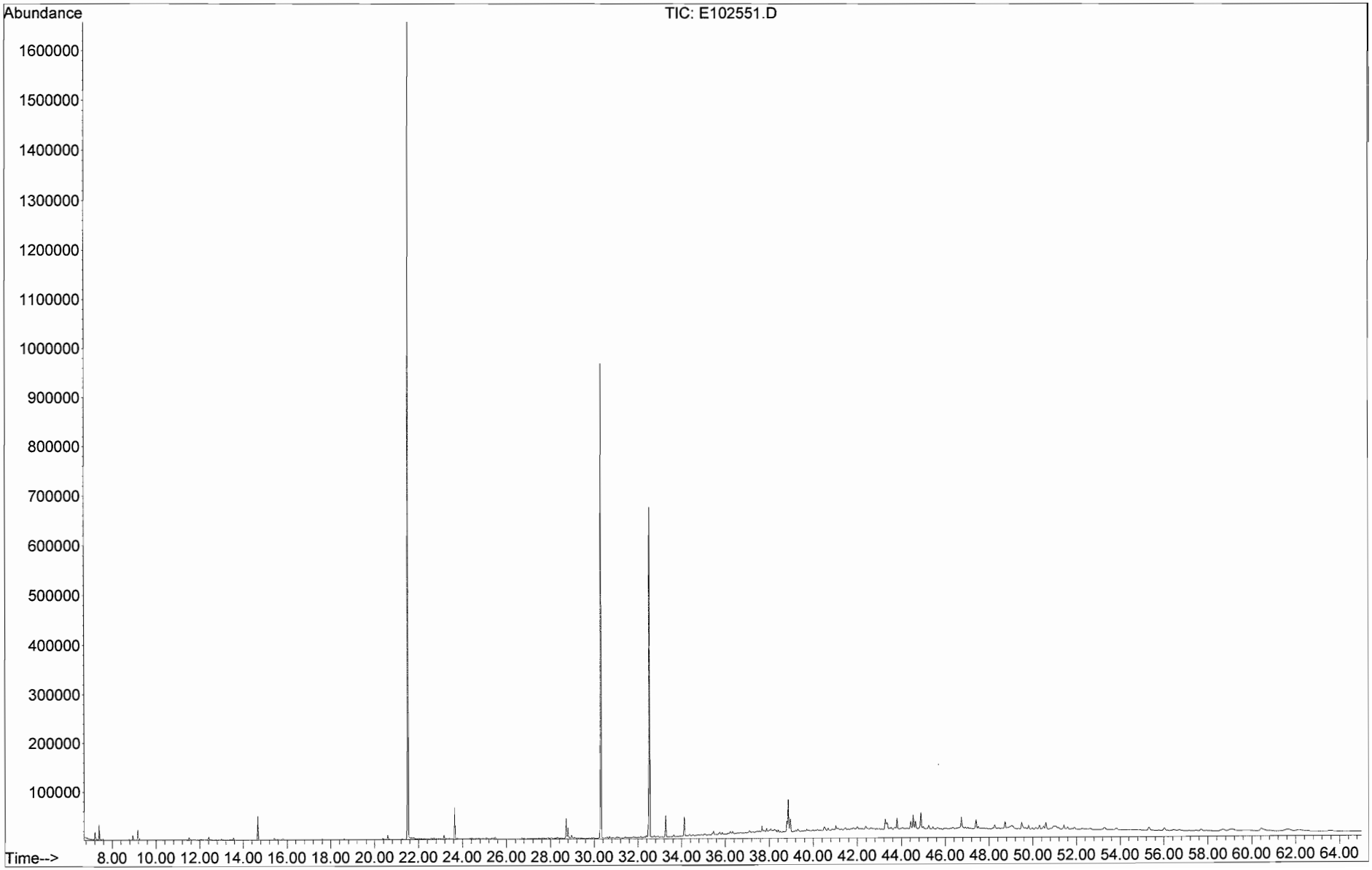




META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E101025\E102551.D
Date Acquired: 28 Oct 2010 6:40 am
Sample Name: TT101015-03
Misc Info: MRC-SED-1



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101025\E102552.D
Date Acquired: 28 Oct 2010 7:58 am
Sample Name: TT101015-03DUP
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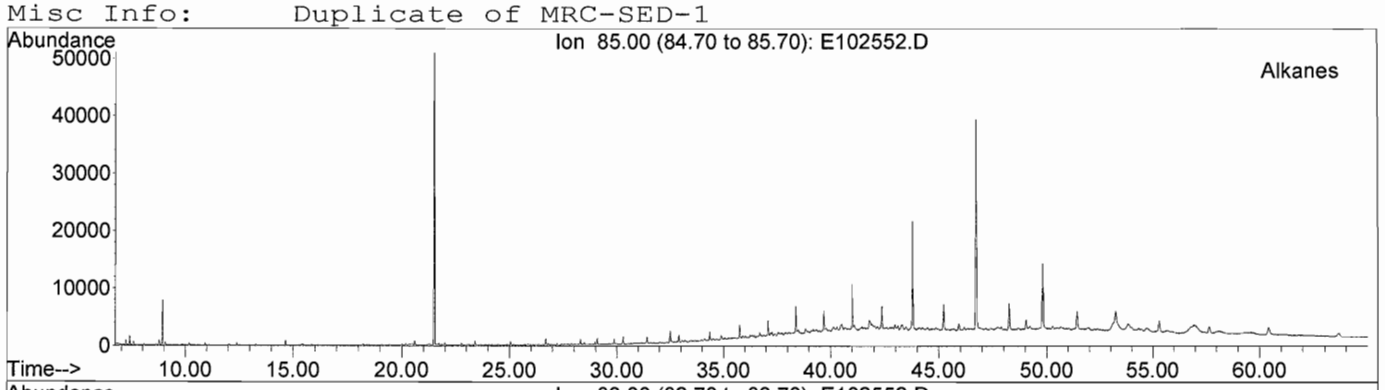

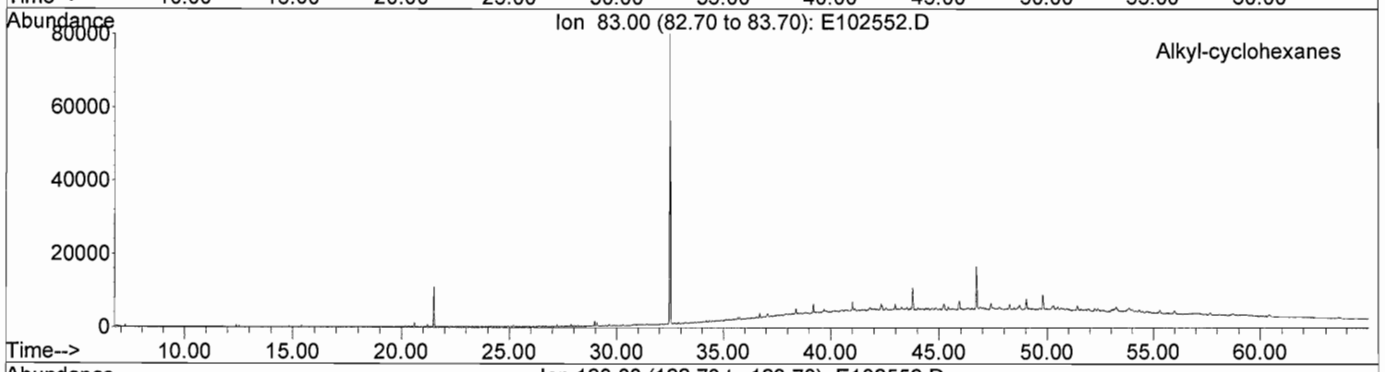

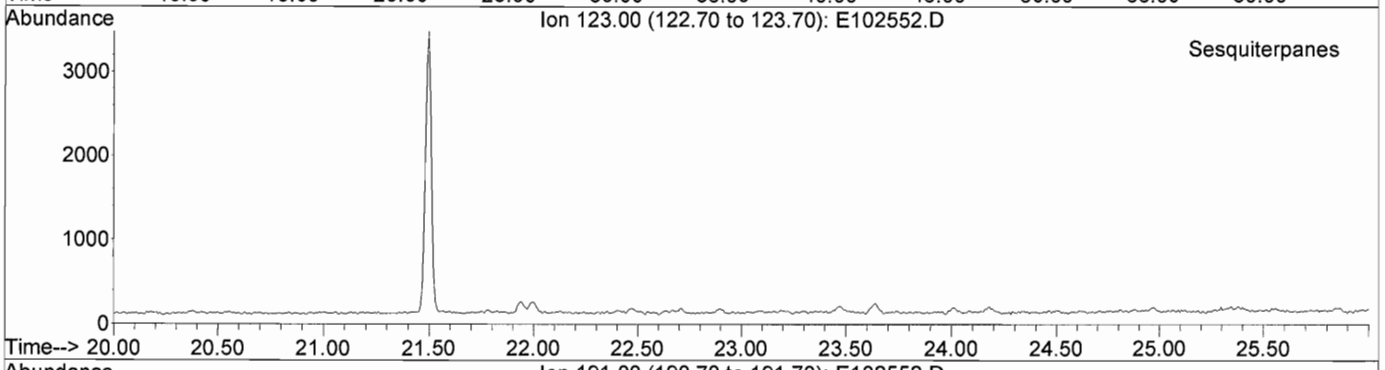

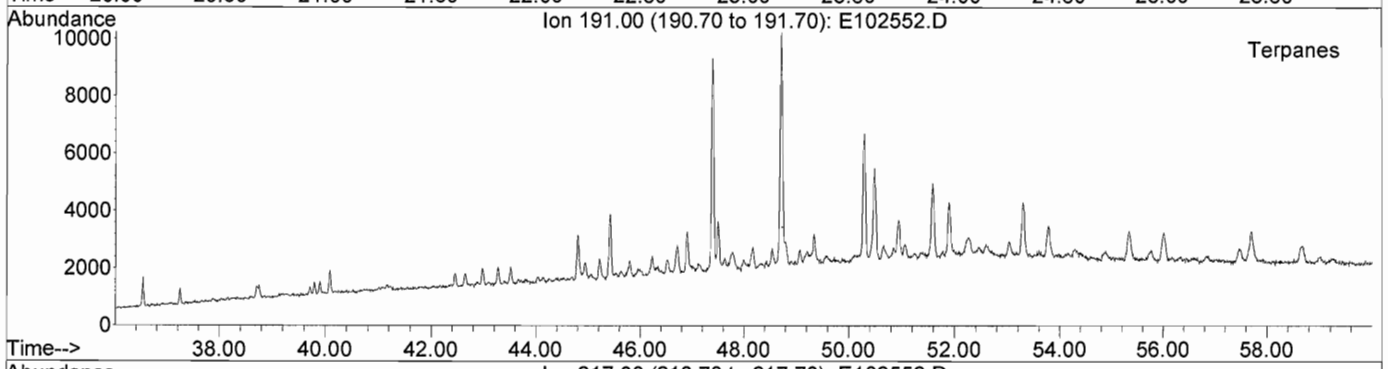

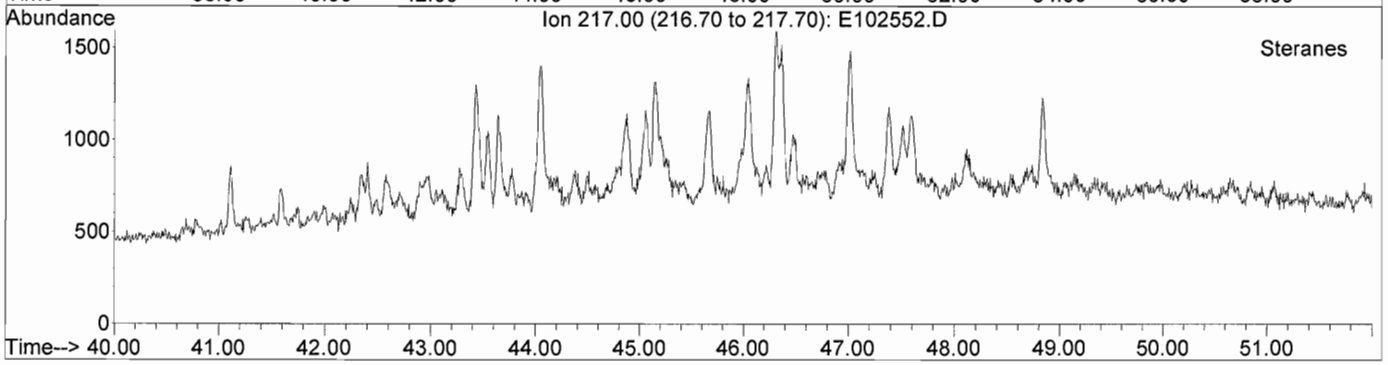

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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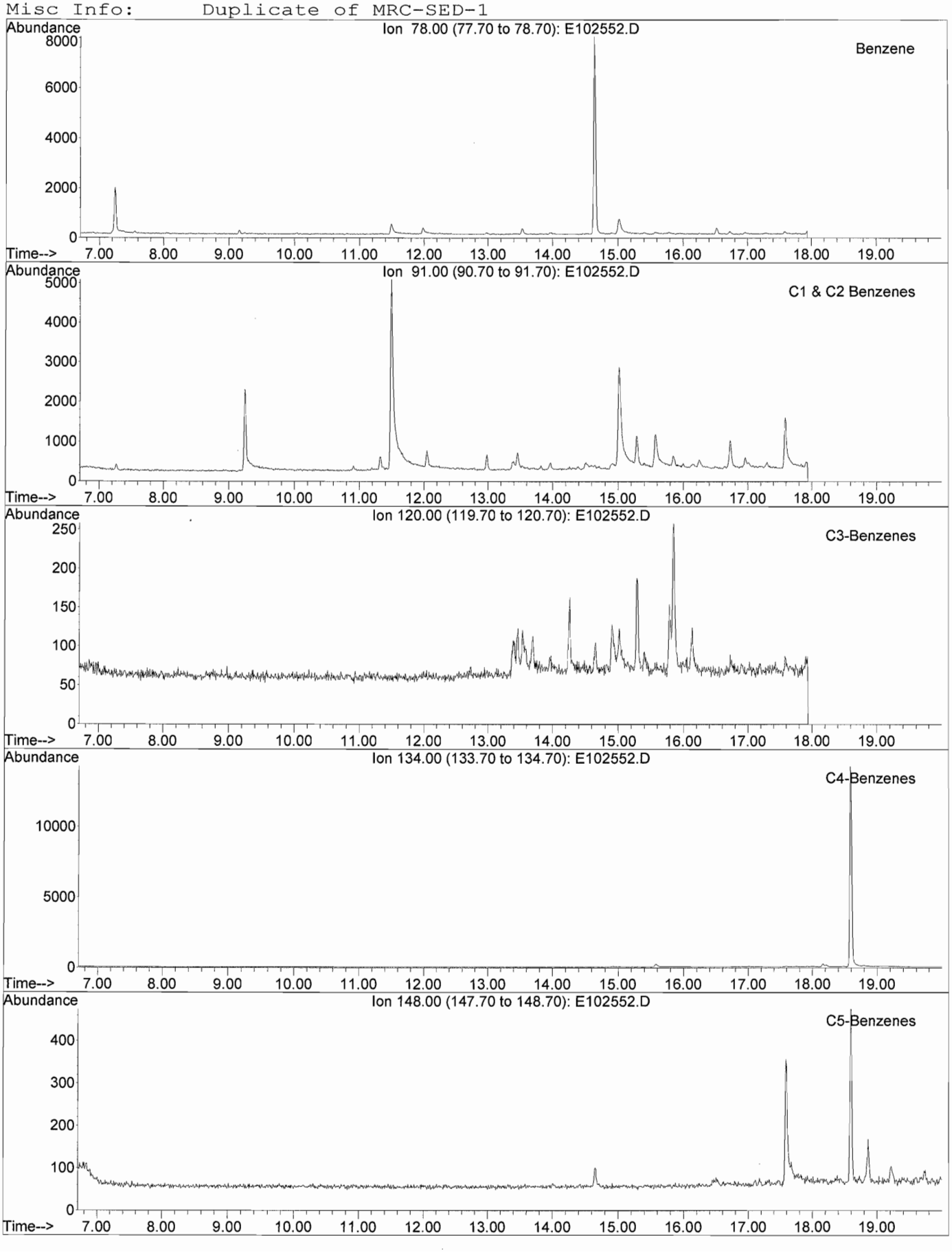
Date Acquired: 28 Oct 2010 7:58 am
Sample Name: TT101015-03DUP
Misc Info: Duplicate of MRC-SED-1



META Environmental, Inc.

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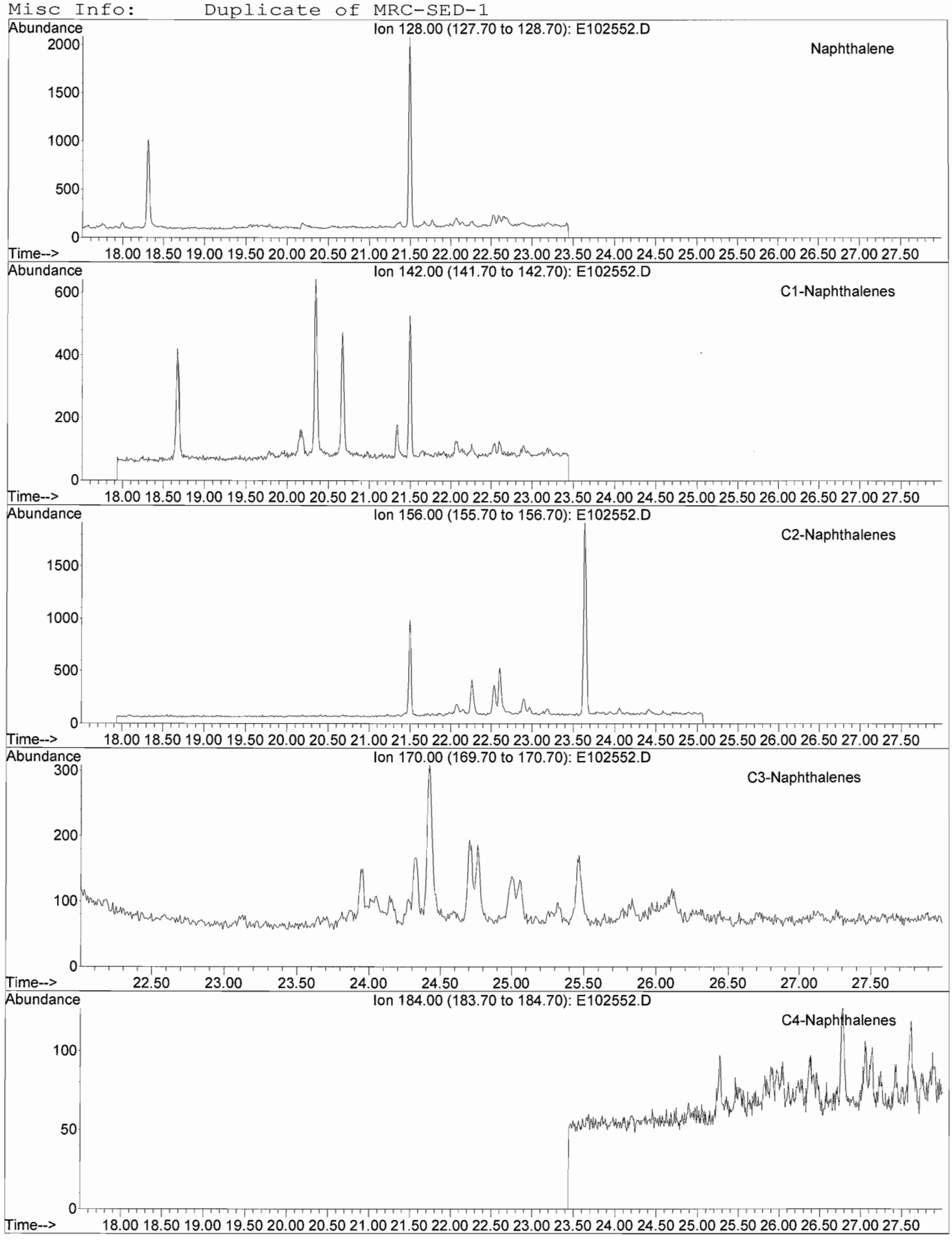

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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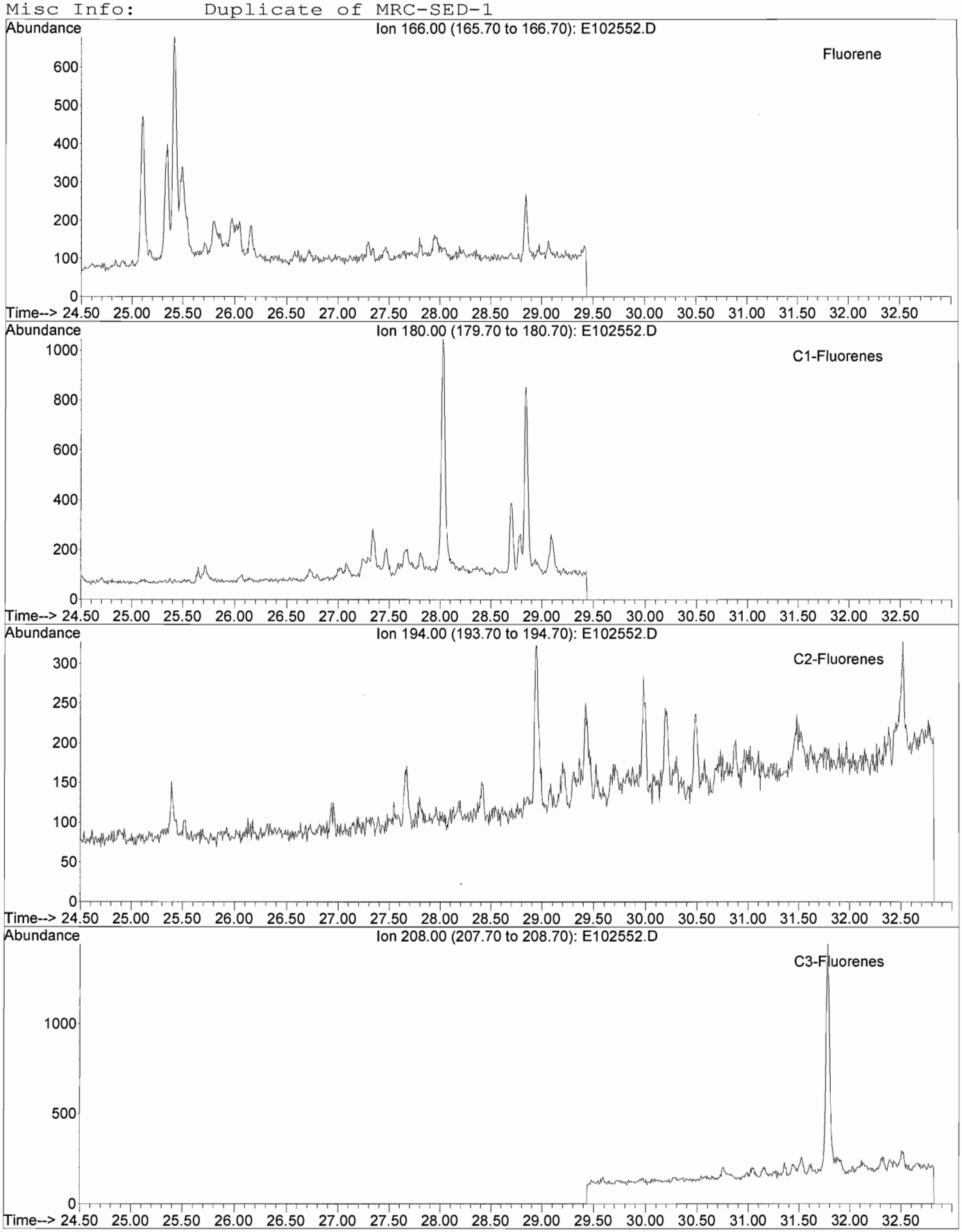

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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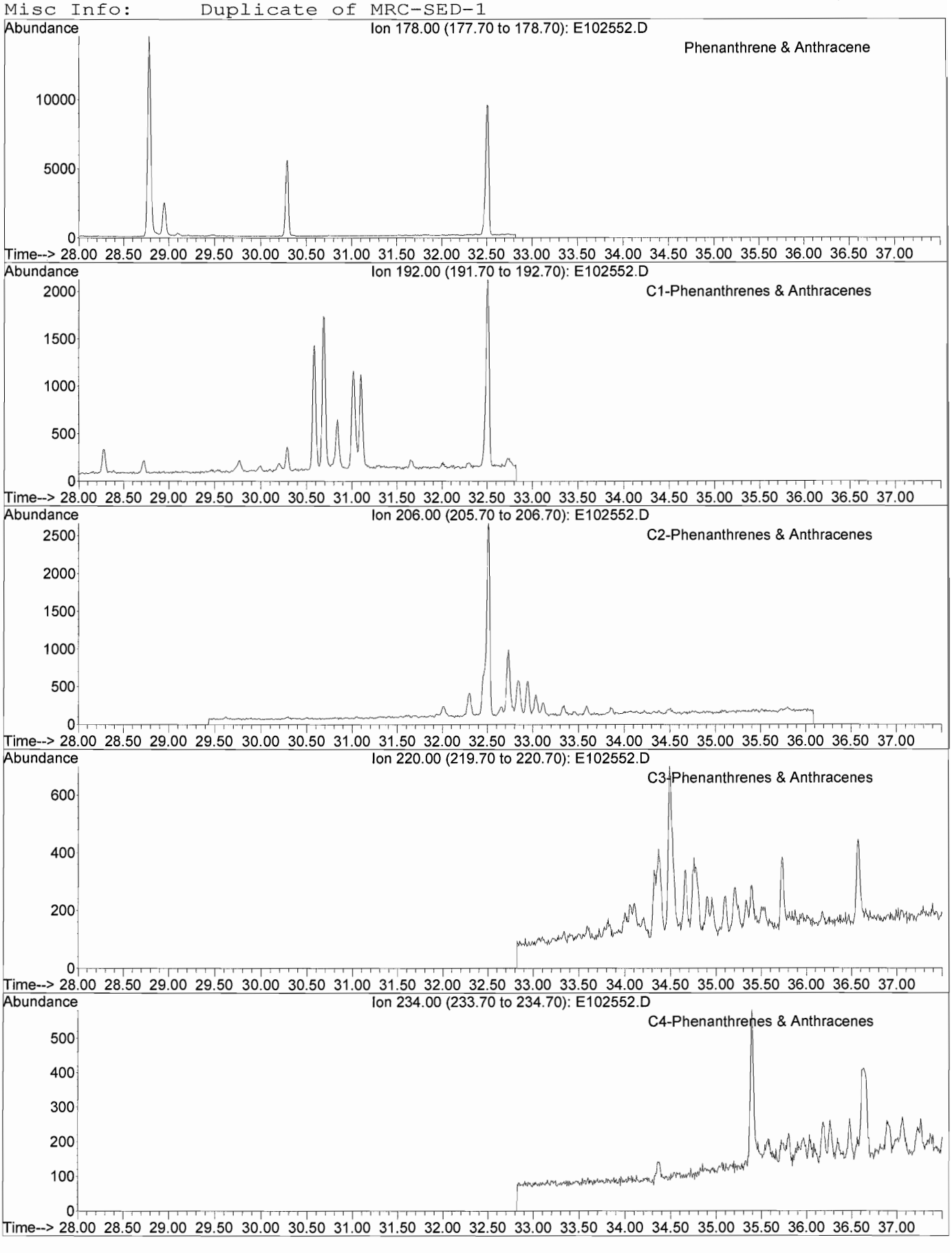

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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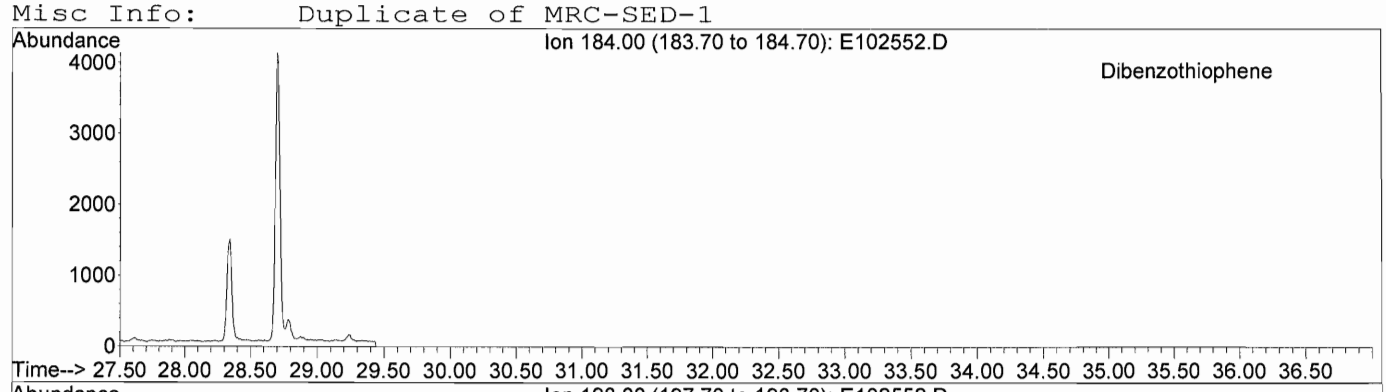

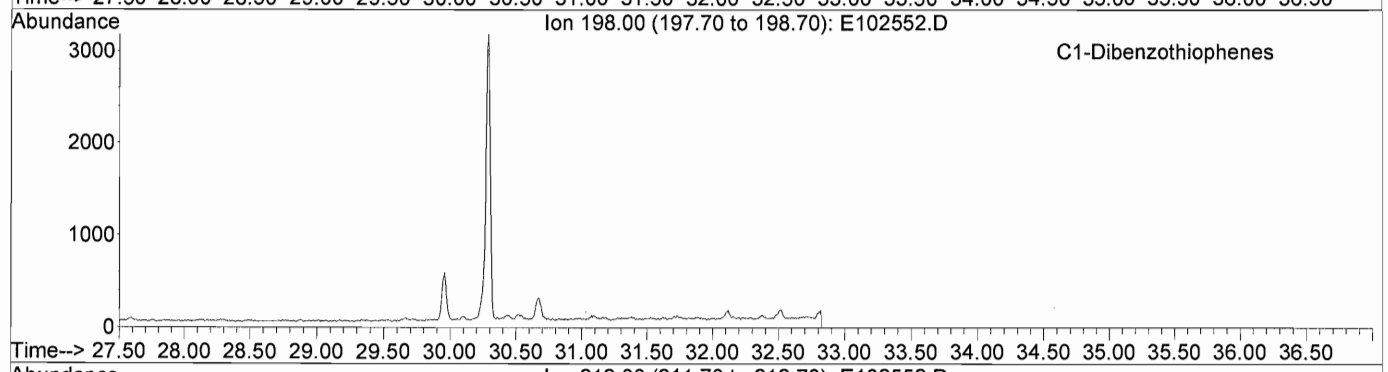

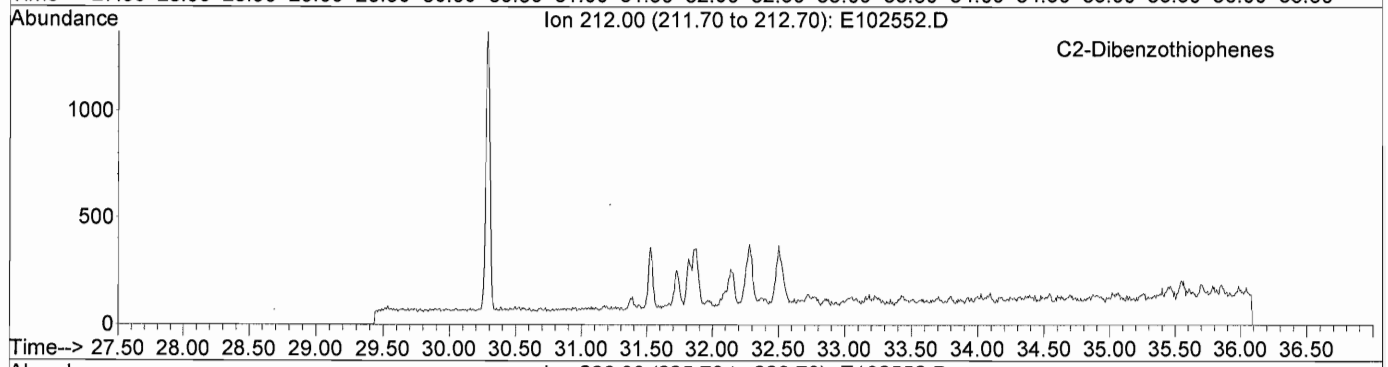

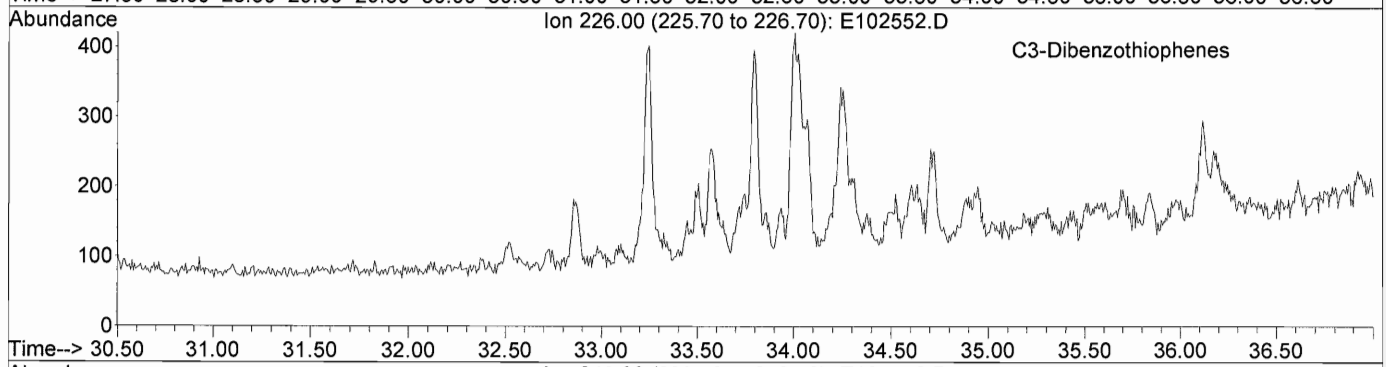

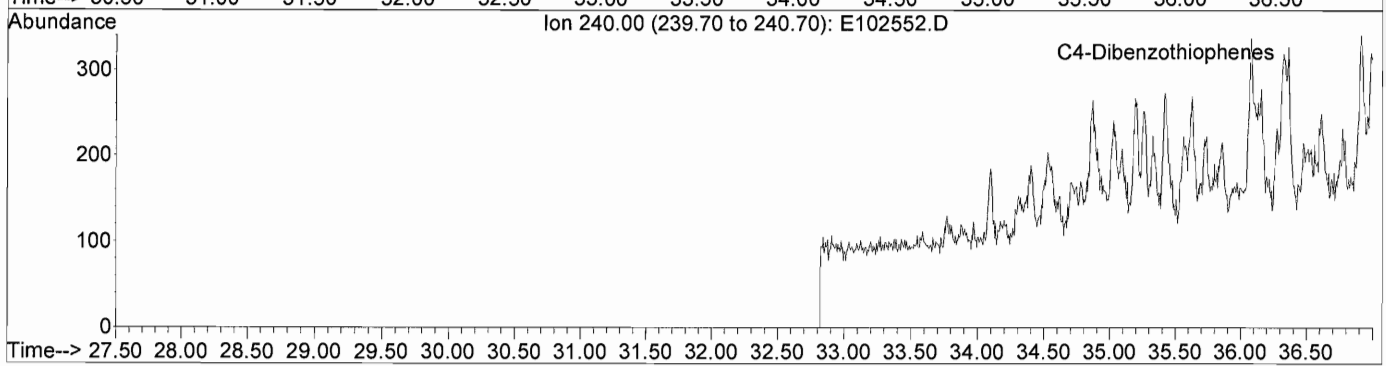

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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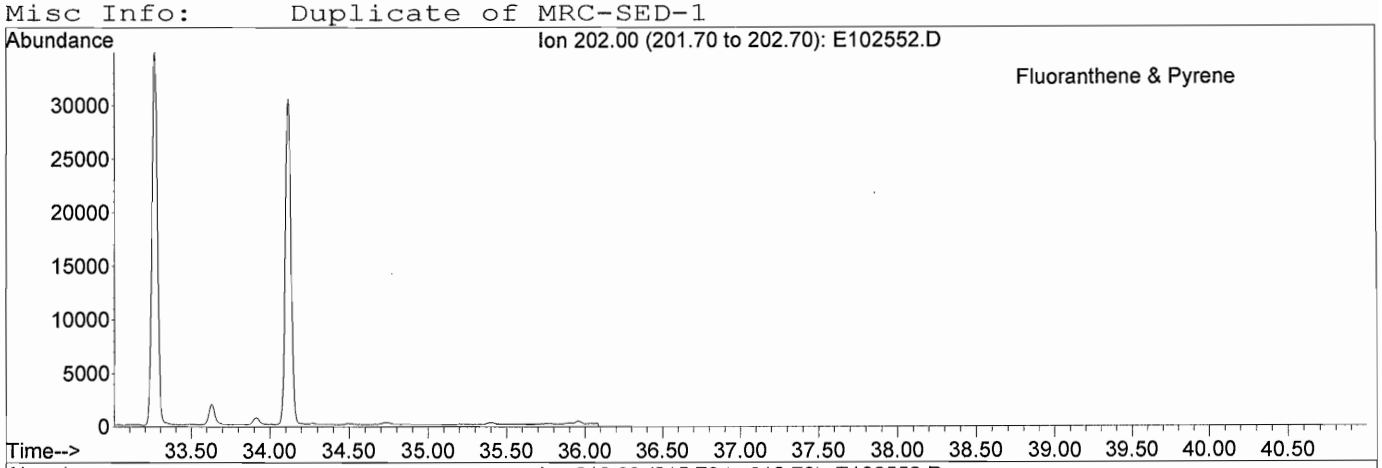
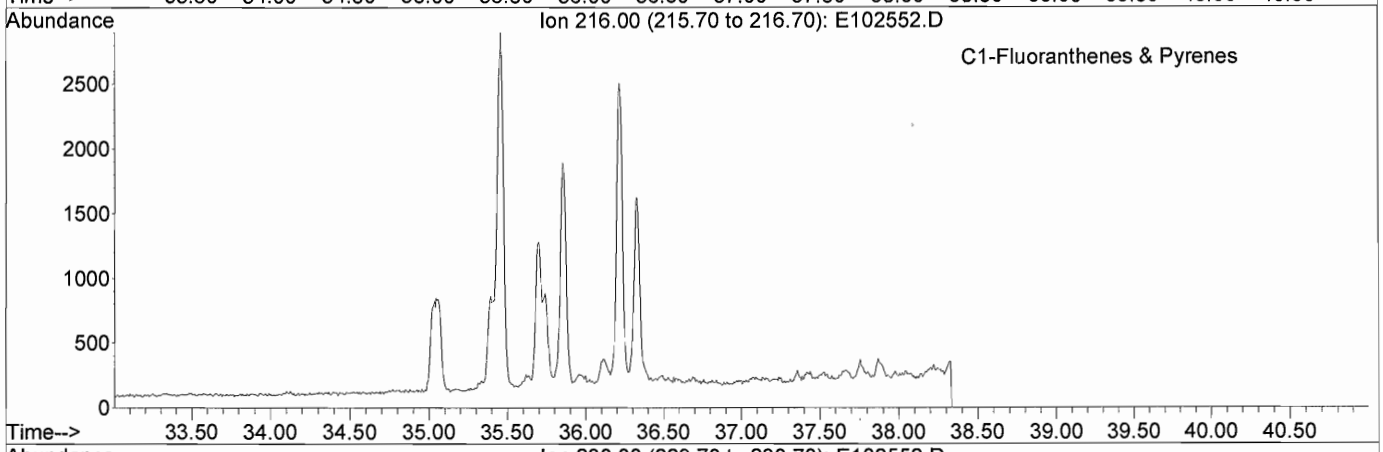
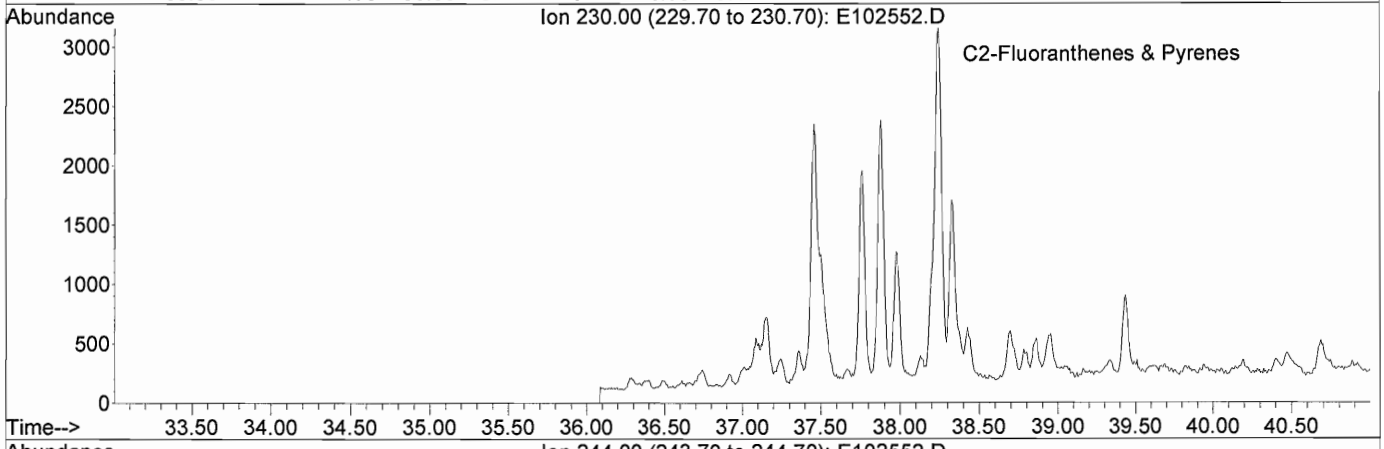
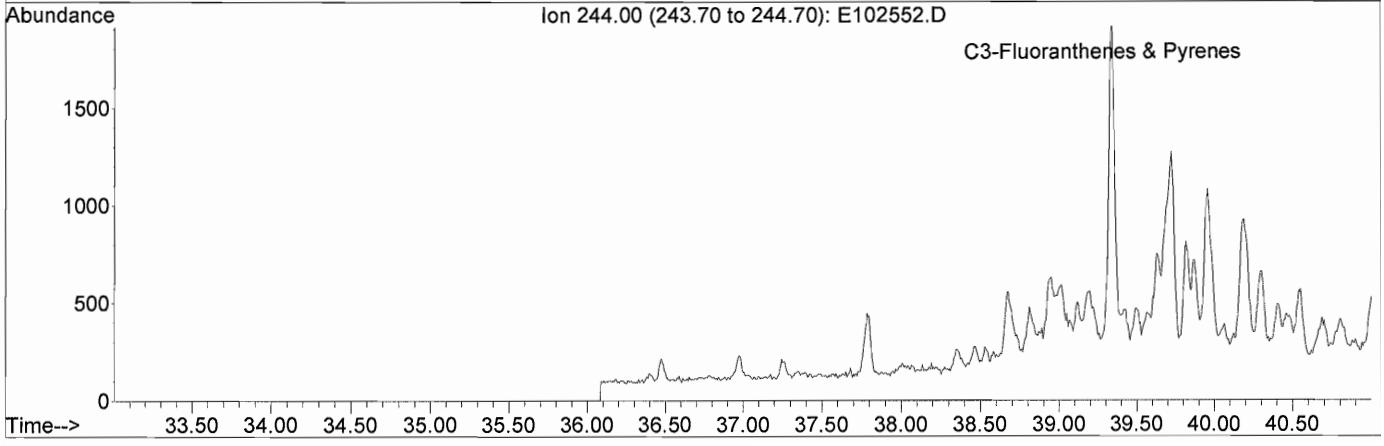




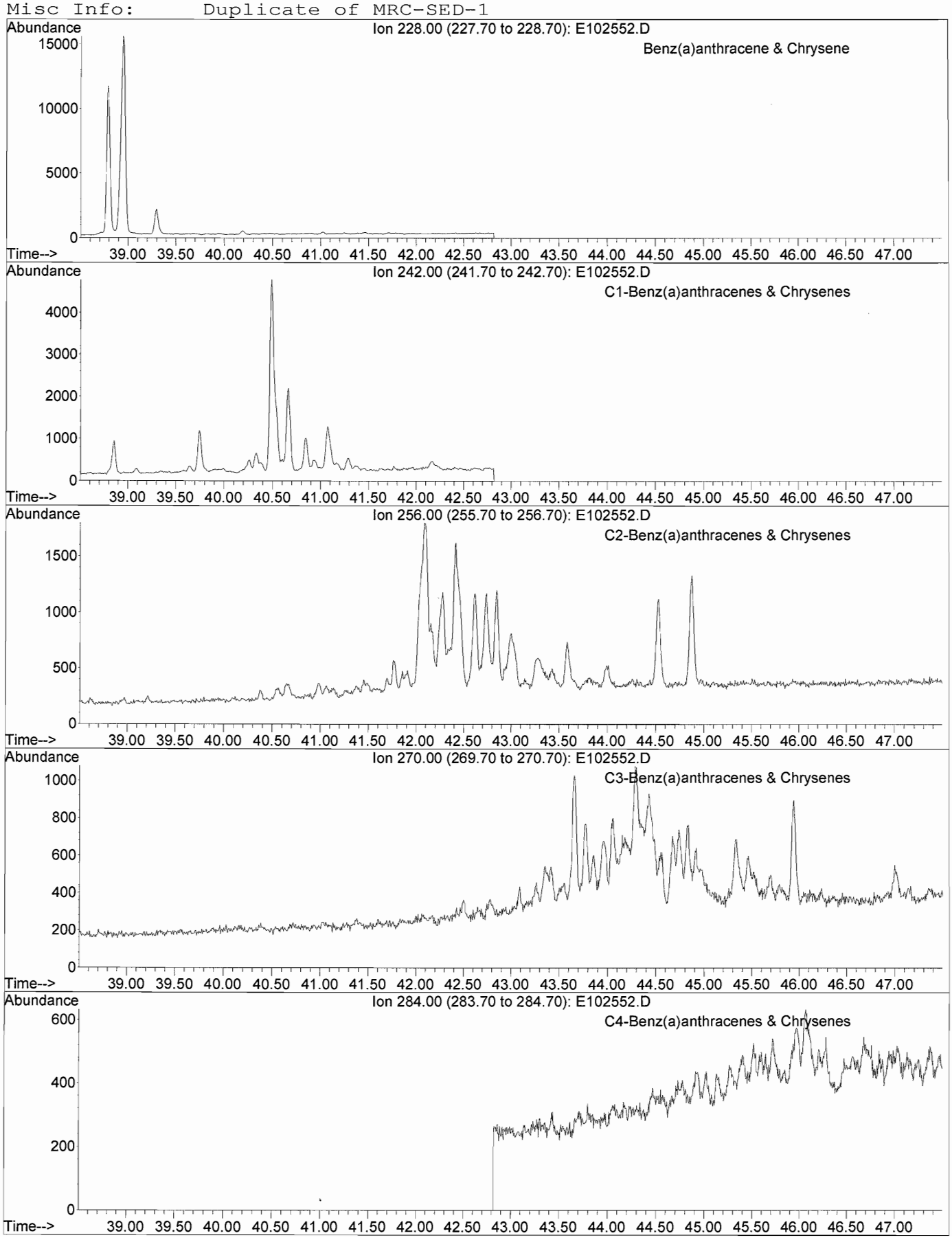




META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E101025\E102552.D
Date Acquired: 28 Oct 2010 7:58 am
Sample Name: TT101015-03DUP
Misc Info: Duplicate of MRC-SED-1



META Environmental, Inc.

GC/MS TOTAL ION CHROMATOGRAM

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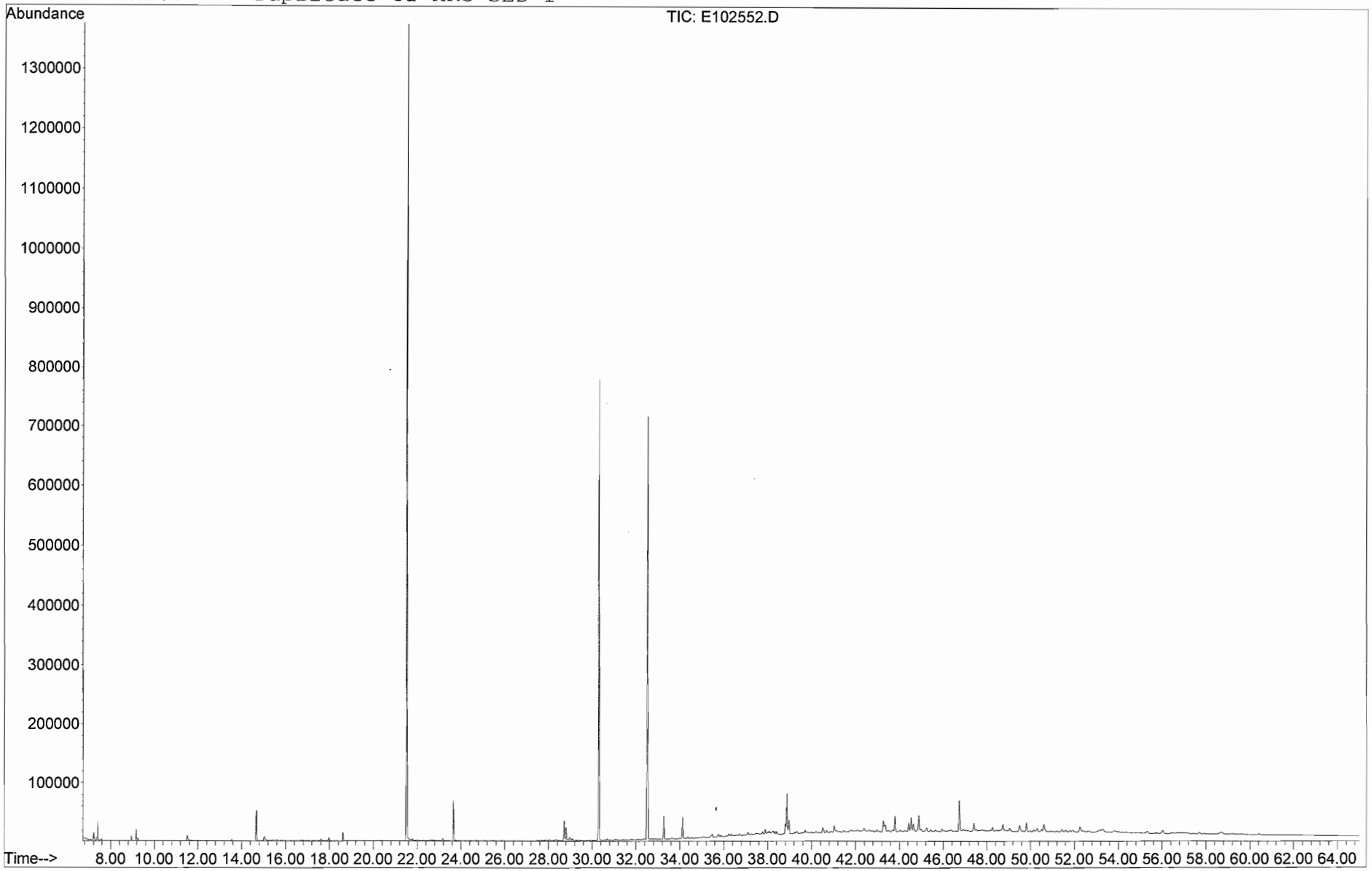


APPENDIX E—
SEDIMENT-AGE DATING

SEDIMENT CHRONOLOGY

Methods

Sediment chronology work is based on the analysis and interpretation of the radioactive nuclides Pb-210 (lead-210) and Cs-137 (cesium-137) in samples taken at various depths in sediment cores. The analytical results are used to derive sedimentration rates and calendar dates in the sediments. The methods are described in a paper by Hewitt W. Jeter which was published in the year 2000: Determining the Ages of Recent Sediments Using Measurements of Trace Radioactivity, Terra et Aqua 78, pp 21-29, March 2000.

Lead-210 is a natural radioactive form of lead which is produced as fallout from the atmosphere by radioactive decay of natural Rn-222 (radon-222) gas. This nuclide accompanies sediments which accumulate at the bottoms of natural water systems. Under conditions of steady deposition, profiles of Pb-210 concentration in sediments (after subtracting the constant Pb-210 background of the sediment itself) often decrease logarithmically with increasing depth because of radioactive decay with a half-life of 22.3 years. To derive a sedimentation rate, transverse sections (often 2 cm thick) are taken at intervals from a sediment core and are analyzed for Pb-210. The background concentration, often found by analysis of a deep sample in the core, is subtracted to derive the "excess Pb-210" caused by fallout from the atmosphere. The logarithms of these excess Pb-210 concentrations are plotted against depth, and regression lines are fitted to straight portions of the plots. The slopes of these lines are used to calculate sedimentation rates. When base 10 logarithms are used and the depths are expressed in cm, the sedimentation rate in cm per year equals -0.01352/slope. Calendar dates at various depths in the core can then be calculated from the sedimentation rate using a known reference date such as the core collection date at the sediment surface.

Cesium-137 is a fission product which is a component of fallout derived from atmospheric testing of nuclear weapons. The Cs-137 method is fundamentally different from the Pb-210 method in that it provides date "markers" rather than concentration slopes which can be interpretated. The first appearance of Cs-137 in sediments generally marks the year 1954. Another marker is often found in the form of a concentration maximum at the year 1963, caused by an increase and then a decrease in nuclear testing. To derive a sedimentation rate, transverse sections are taken at intervals from a core and are analyzed for Cs-137. The resulting concentrations are plotted against depths and the markers are identified visually. A sedimentation rate can be calculated as the depth of the 1954 marker divided by the time interval between core collection date and the year 1954. Another sedimentation rate can be calculated as the the depth of the 1963 marker divided by the time interval between the core collection date and the year 1963. Still another sedimentation rate can be calculated as the difference in depths between the two markers divided by the 9 year interval between 1954 and 1963. These calculations may yield different sedimentation rates because they represent different time intervals and different depths. Calendar dates at different depths in the core can be calculated from the sedimentation rates using known reference points such as the marker depths and years, or the core collection date at the sediment surface.

The analysis of Pb-210 was performed by radiochemical separation and beta assay of its daughter product Bi-210 (bismuth-210) according to Method 7.2.3 of the Oak Ridge National Laboratory Master Analytical Manual. A weighed portion of sediment sample is digested in an acid solution containing measured quantities of stable lead and bismuth carriers. The solution is passed through an ion exchange column to perform chemical separation. Bismuth is eluted from the column and is then precipitated as the oxychloride. This precipitate is collected by vacuum filtration on a pre-weighed filter disk. The disk is dried, then weighed again to determine the precipitate mass in order to determine chemical recovery. The disk containing the precipitate is mounted on a nylon planchet and is covered with aluminum foil to absorb any alpha particles emitted by the sample. The sample planchet is analyzed for beta activity in a gas-flow proportional detector system calibrated with Bi-210 standards of varying precipitate mass. Pb-210 concentration of the sediment sample is then calculated from the observed beta count rate, the background and efficiency of the detector, the sample mass, chemical recovery, and the decay fraction of Bi-210 (5.01 day half life) over the time interval between chemical separation and beta analysis.

Cs-137 was measured by direct gamma spectral analysis using high purity germanium detectors calibrated with multiple nuclide standards. It is method Ga-01-R of the Environmental Measurements Laboratory, U.S. Department of Energy, HASL-300 Manual. A portion of the sediment sample is weighed into a standard analysis container and placed in a standard position relative to the detector within a heavy metal shield to reduce ambient radiation. Gamma spectral data are acquired over a period near 1000 minutes, after which the spectrum is analyzed by computer. Cs-137 concentration of the sediment is calculated by integrating the spectral region at 662 KeV which contains gamma emissions produced by the short lived daughter product Ba-137m.

Sampling and Results

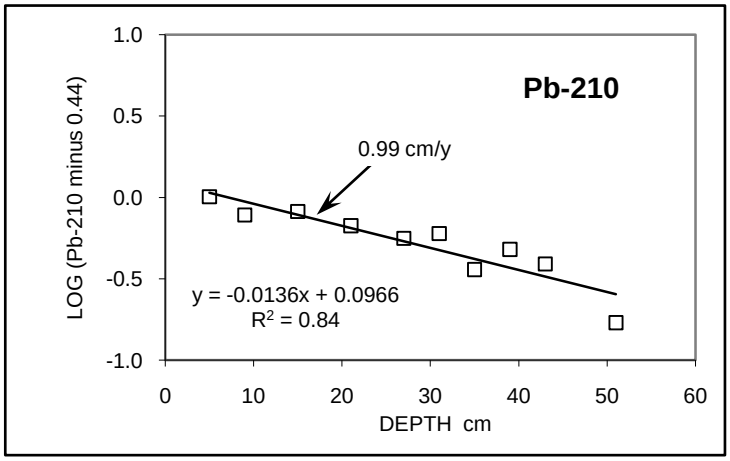
Sediment cores were collected at 3 locations in the Middle River from 8/23/10 to 8/25/10. Transverse sections, 2 cm thick, were extracted fom each core and were transferred in the field to glass sample jars. Six sample jars from selected depths in each core were sent to the Mass Spec Services laboratory on 8/26/10. Two additional samples were included to be analyzed as matrix spike and matrix spike duplicates for quality control purposes.

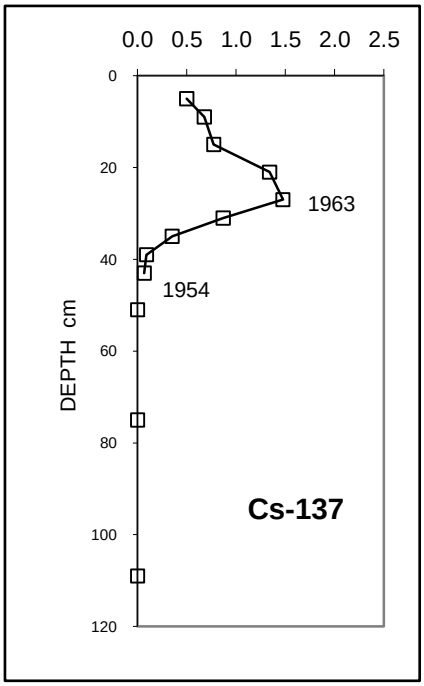
The suite of sediment samples was analyzed for Pb-210 and Cs-137 at the laboratory and the results were reported to Tetra Tech by Email attachment on 9/17/10. The results were plotted and were used to recommend 6 additional samples from each core to refine the chronology study. These samples, plus two additional quality control samples, were sent to the laboratory and received on 9/22/10 and 9/27/10.

The second suite of samples was analyzed at the laboratory and the results were added to the plots for each core. A sediment chronology report was written for each core and was sent to Tetra Tech by Email attachment on 10/21/10. A complete Level 4 documentation of the analyses was completed by the laboratory and was sent to Tetra Tech on 11/10/10.

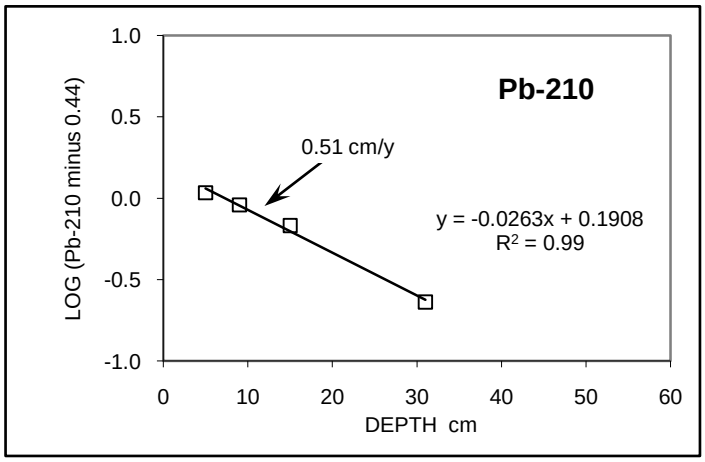
Data plots used in chronology interpretation of Cores DHC, CPC, and CON are shown below. Measurements of Pb-210 and Cs-137, and details of the analyses, are shown in Appendix 1.

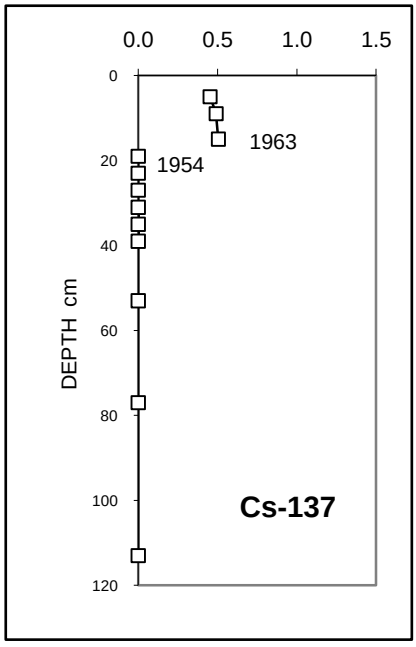
Core DHC
Collected 08/23/10



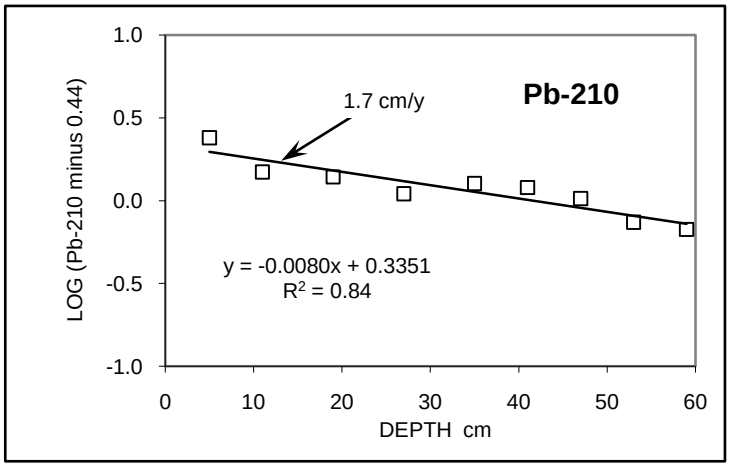


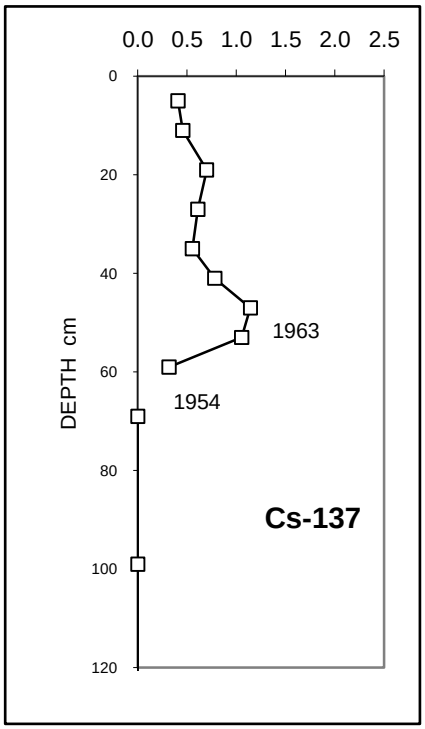
Core CPC
Collected 08/24/10





Core CON
Collected 08/25/10





Conclusions

Sedimentation rates derived by the 3 chronology methods (Appendix 1) are shown in Table 1. Average sedimentation rates are used in equations for calculating ages at given depths.

Age profiles for the 3 sediment cores, calculated at 5 cm depth intervals, are shown in Table 2. Ages at intermediate depths can be calculated using the equations in Table 1. Extrapolating ages beyond the depths shown in Table 2 would involve assumptions of constant sedimentation rates beyond the range of useful chronology measurements.

TABLE 1
Sedimentation Rates and Age Profile Equations

	Sedimentation Rates cm/y				
Core	Pb-210 Method	1963 Marker	1954 Marker	Average	Age Equations
DHC	0.99	0.57	0.80	0.79	year = 2010 - depth/0.79
CPC	0.51	0.34	0.30	0.38	year = 2010 - depth/0.38
CON	1.7	1.1	1.1	1.3	year = 2010 - depth/1.3

TABLE 2
Age Profiles in 3 Sediment Cores

Depth cm	DHC year	CPC year	CON year
0	2010	2010	2010
5	2004	1997	2006
10	1997	1984	2002
15	1991	1971	1998
20	1985	1957	1995
25	1978	1944	1991
30	1972	1931	1987
35	1966	1918	1983
40	1959		1979
45	1953		1975
50	1947		1972
55	1940		1968
60	1934		1964
65	1928		1960
70	1921		1956

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Stone Mountain, GA 30087

MASS SPEC SERVICES

Division of Geonuclear, Inc.
P.O. Box 163, Orangeburg, NY 10962

Report Date	10/21/10
MSS No.	Pb0207
Tetra Tech Project	Middle River
Tetra Tech Order	1064389
Samples Received	08/31/10
Task Supervisor	Hewitt Jeter

Attn: Eric Samuels

Report of Analysis
Sediments

Core DHC collected 8/23/10 13:30
Core CPC collected 8/24/10 09:30
Core CON collected 8/25/10 12:30

MSS No.	Identity	Depth cm	Radiometric Results pCi/g dry Pb-210	Cs-137	Pb-210 Prep	Pb-210 Count	Cs-137 Prep	Cs-137 Count
Pb0207-1	DHC-5	8-10	1.22 ± 0.15	0.677 ± 0.086	10/5/10 13:00	10/8/10 15:35	10/5/10 16:00	10/8/10 17:13
Pb0207-2	DHC-11	20-22	1.11 ± 0.15	1.341 ± 0.089	10/5/10 13:00	10/8/10 15:35	10/5/10 16:00	10/8/10 17:15
Pb0207-3	DHC-14	26-28	1.00 ± 0.13	1.475 ± 0.078	10/5/10 13:00	10/8/10 15:35	10/5/10 16:00	10/8/10 17:22
Pb0207-4	DHC-18	34-36	0.80 ± 0.12	0.351 ± 0.054	10/5/10 13:00	10/8/10 15:35	10/5/10 16:00	10/9/10 14:49
Pb0207-5	DHC-20	38-40	0.92 ± 0.13	0.091 ± 0.044	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/9/10 15:04
Pb0207-6	DHC-22	42-44	0.83 ± 0.11	0.068 ± 0.031	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/11/10 16:33
Pb0207-7	CPC-5	8-10	1.35 ± 0.15	0.491 ± 0.072	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/11/10 16:36
Pb0207-8	CPC-10	18-20	0.48 ± 0.09	< 0.049	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/11/10 16:45
Pb0207-9	CPC-12	22-24	0.38 ± 0.08	< 0.046	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/15/10 18:21
Pb0207-10	CPC-14	26-28	0.57 ± 0.10	< 0.053	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/15/10 16:09
Pb0207-11	CPC-18	34-36	0.49 ± 0.10	< 0.040	10/5/10 13:00	10/8/10 15:36	10/5/10 16:00	10/12/10 17:10
Pb0207-12	CPC-20	38-40	0.50 ± 0.09	< 0.036	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/13/10 17:43
Pb0207-13	CON-6	10-12	1.93 ± 0.17	0.457 ± 0.048	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/14/10 17:37
Pb0207-14	CON-14	26-28	1.54 ± 0.13	0.610 ± 0.085	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/14/10 18:37
Pb0207-15	CON-18	34-36	1.71 ± 0.16	0.555 ± 0.088	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/16/10 8:50
Pb0207-16	CON-24	46-48	1.47 ± 0.15	1.143 ± 0.067	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/16/10 12:30
Pb0207-17	CON-27	52-54	1.18 ± 0.14	1.054 ± 0.076	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/17/10 1:32
Pb0207-18	CON-30	58-60	1.11 ± 0.12	0.316 ± 0.056	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/16/10 12:30
Pb0207-19	CON-15 MS	28-32	10.03 ± 0.36	17.321 ± 0.243	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/17/10 18:13
Pb0207-20	CON-16 MSD	28-32	9.70 ± 0.34	17.899 ± 0.214	10/6/10 10:55	10/8/10 17:23	10/5/10 16:00	10/17/10 17:16

Target Detection Limits:	Pb-210	0.1 pCi/g	Bi-210 Beta Assay Method	ORNL 7.2.3
	Cs-137	0.1 pCi/g	Gamma Spectral Analysis	EML Ga-01-R

Hewitt W. Jeter

Tolerances are 2 sigma counting uncertainties.
Detection limits are at the 4.66 sigma level.

Tetra Tech Inc.

Project: Middle River
1064389

MASS SPEC SERVICES
Division of Geonuclear, Inc

REPORT OF LABORATORY CONTROL SAMPLES

MSS No. Pb0207

Sediment Matrix Spikes

				Activities in pCi/g dry			
MSS No.	Type	Analysis	Count Date	From Matrix	Spike Added	Analytical Result	Recovery
SSP-111	Sediment Matrix Spike	Pb-210	10/8/10 17:23	0.45	8.85	9.41	101%
SPSPK-2	Sediment Matrix Spike	Cs-137	10/18/10 13:04	0.98	14.23	15.58	102%

Water Blanks

				pCi/ g wet	
MSS No.	Type	Analysis	Count Date	Analytical Result	Expected
WBL-137	Water Blank	Pb-210	10/8/10 17:23	< 0.06	Non detect
SPBKG-1	Water Blank	Cs-137	10/12/10 19:52	< 0.05	Non detect

Tetra Tech Inc.

Project: Middle River
1064389

MASS SPEC SERVICES
Division of Geonuclear, Inc

MSS No. Pb0207

REPORT OF FIELD QC SAMPLE RESULTS

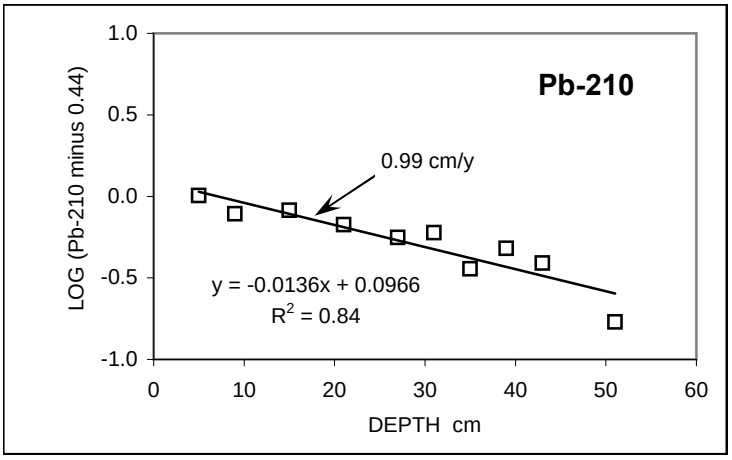
Matrix Spike and Matrix Spike Duplicate Analyses Pb0207-19 and Pb0207-20

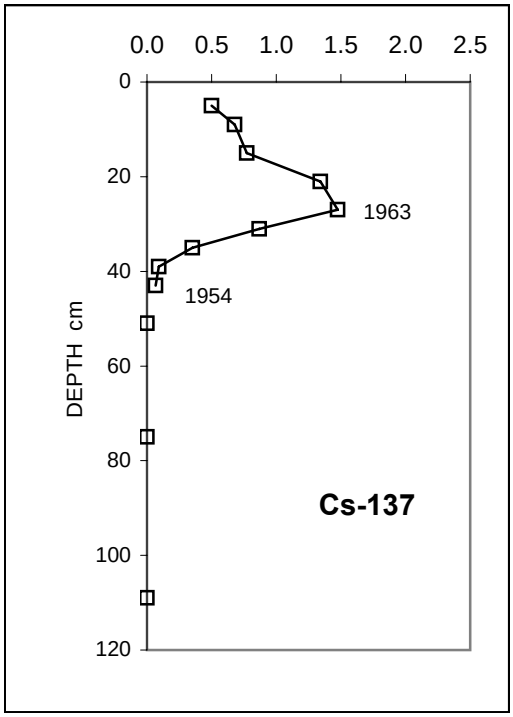
	Activities in pCi/g dry						
Analysis	From matrix Pb0207-14	Spike Added	MS Result Pb0207-19	MSD Result Pb0207-20	Relative % Difference	MS Recovery	MSD Recovery
Pb-210	1.54	8.85	10.03	9.70	3.3%	97%	93%
Cs-137	0.61	16.60	17.32	17.90	3.3%	101%	104%

Tetra Tech Inc.
Attn: Eric Samuels
Project 1064389
Middle River

MASS SPEC SERVICES
Division of Geonuclear, Inc.
Sediment Chronology Interpretation
Hewitt Jeter 10/21/10

Core DHC
Collected 08/23/10





Pb-210 Chronology
Supported Pb-210 is measured at 0.44 pCi/g dry, the average of the deepest Pb-210 results in cores DHC, CPC, and CON. These three measurements are in agreement when their tolerances are considered. Measured Pb-210 concentrations which are not significantly greater than the supported level are not plotted.

Fitted curve: y = -0.0136x + 0.0966 Correlation R square: 0.84

Inferred sedimentation rate: -0.01352 / -0.0136 = **0.99 cm/y**

Cs-137 Chronology
A 1963 maximum is found near 27 cm depth, resulting in a calculated sedimentation rate:
27 cm / (47 y between 1963 and 2010) = **0.57 cm/y.**

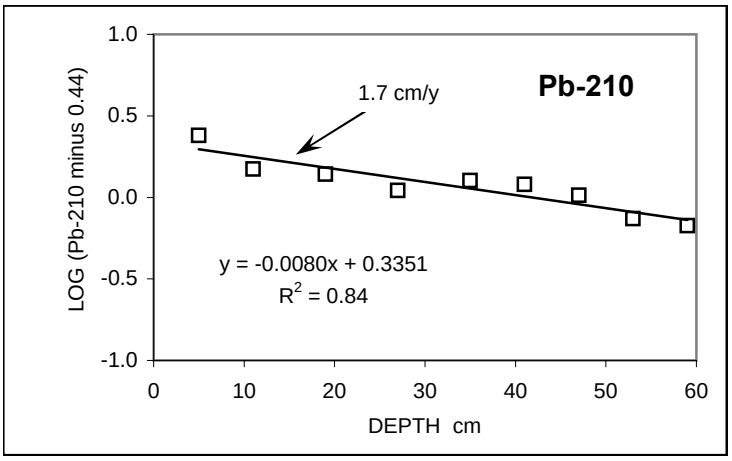
The 1954 Cs-137 horizon lies near 45 cm depth, resulting in a calculated sedimentation rate:
45 cm / (56 y between 1954 and 2010) = **0.80 cm/y**

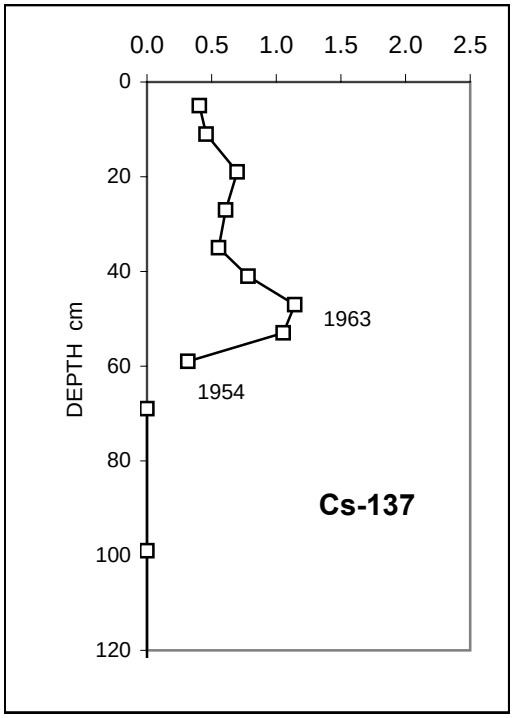
Sample Data	Visual	pCi/g dry	
Depth cm	Description	Pb-210	Cs-137
4 - 6	silt, clay, fine sand	1.45 ± 0.15	0.499 ± 0.052
8 - 10	silt, clay, fine sand	1.22 ± 0.15	0.677 ± 0.086
14 - 16	silt, clay, fine sand	1.26 ± 0.18	0.773 ± 0.065
20 - 22	silt, clay, fine sand	1.11 ± 0.15	1.341 ± 0.089
26- 28	silt, clay, fine sand	1.00 ± 0.13	1.475 ± 0.078
30 - 32	silt, clay, fine sand	1.04 ± 0.12	0.868 ± 0.046
34 - 36	clay, silt, fine sand	0.80 ± 0.12	0.351 ± 0.054
38 - 40	clay, silt, fine sand	0.92 ± 0.13	0.091 ± 0.044
42 - 44	clay, silt, fine sand	0.83 ± 0.11	0.068 ± 0.031
50 - 52	silt, clay, fine sand	0.61 ± 0.10	< 0.039
74 - 76	clay, silt, fine sand	0.46 ± 0.09	< 0.033
108 - 110	clay, fine sand, silt	0.41 ± 0.08	< 0.031

Tetra Tech Inc.
Attn: Eric Samuels
Project 1064389
Middle River

MASS SPEC SERVICES
Division of Geonuclear, Inc.
Sediment Chronology Interpretation
Hewitt Jeter 10/21/10

Core CON
Collected 08/25/10





Pb-210 Chronology:
Supported Pb-210 is measured at 0.44 pCi/g dry, the average of the deepest Pb-210 results in cores DHC, CPC, and CON. These three measurements are in agreement when their tolerances are considered. Measured Pb-210 concentrations which are not significantly greater than the supported level are not plotted. Non-detection of Pb-210 at 98-100 cm depth is attributed to high sand content of the sediment.

Fitted curve: y = -0.0080x + 0.3351 Correlation R square: 0.84

Inferred sedimentation rate: -0.01352 / -0.0080 = **1.7 cm/y**

Cs-137 Chronology
A 1963 maximum is found near 50 cm depth, resulting in a calculated sedimentation rate:
50 cm / (47 y between 1963 and 2010) = **1.1 cm/y.**

The 1954 Cs-137 horizon lies near 64 cm depth, resulting in a calculated sedimentation rate:
64 cm / (56 y between 1954 and 2010) = **1.1 cm/y**

Sample Data	Visual	pCi/g dry	
Depth cm	Description	Pb-210	Cs-137
4 - 6	silt, clay, fine sand	2.84 ± 0.24	0.407 ± 0.090
10 - 12	silt, clay, fine sand	1.93 ± 0.17	0.457 ± 0.048
18 - 20	silt, clay, fine sand	1.83 ± 0.07	0.699 ± 0.082
26 - 28	silt, clay, fine sand	1.54 ± 0.13	0.610 ± 0.085
34 - 36	silt, clay, fine sand	1.71 ± 0.16	0.555 ± 0.088
40 - 42	silt, clay, fine sand	1.64 ± 0.19	0.781 ± 0.067
46 - 48	clay, silt, fine sand	1.47 ± 0.15	1.143 ± 0.067
52 - 54	clay, silt, fine sand	1.18 ± 0.14	1.054 ± 0.076
58 - 60	clay, silt, fine sand	1.11 ± 0.12	0.316 ± 0.056
68 - 70	silt, clay, more fine sand	0.54 ± 0.09	< 0.042
98 - 100	mostly sand	< 0.09	< 0.037
142 - 144	clay, fine sand	0.42 ± 0.08	< 0.031

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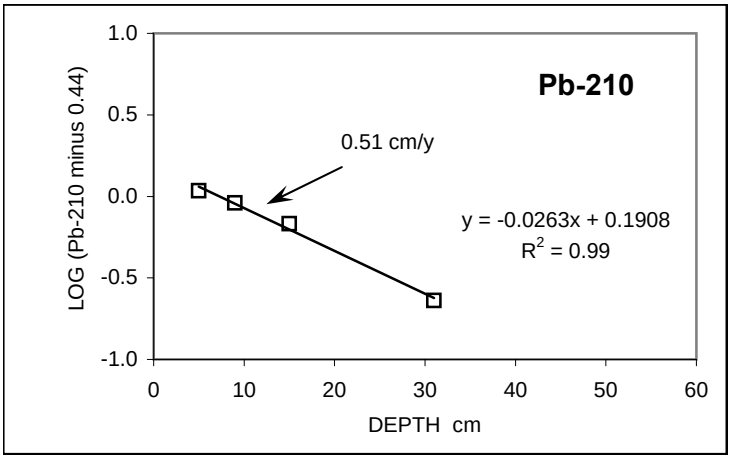
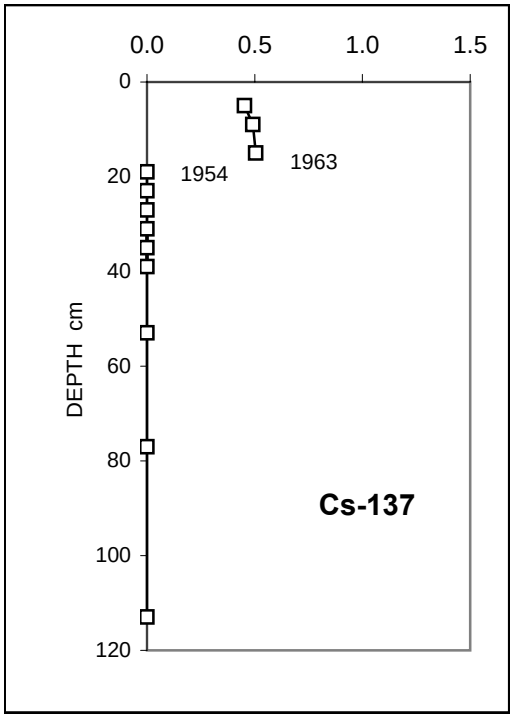
Middle River

MASS SPEC SERVICES
Division of Geonuclear, Inc.
Sediment Chronology Interpretation
Hewitt Jeter 10/21/10

Core CPC
Collected 08/24/10





Pb-210 Chronology:
Supported Pb-210 is measured at 0.44 pCi/g dry, the average of the deepest Pb-210 results in cores DHC, CPC, and CON. These three measurements are in agreement when their tolerances are considered. Measured Pb-210 concentrations which are not significantly greater than the supported level are not plotted.

Fitted curve: y = -0.0263x + 0.1908 Correlation R square: 0.99

Inferred sedimentation rate: -0.01352 / -0.0263 = **0.51 cm/y**

Cs-137 Chronology
A 1963 maximum is found near 16 cm depth, resulting in a calculated sedimentation rate:
16 cm / (47 y between 1963 and 2010) = **0.34 cm/y.**

The 1954 Cs-137 horizon lies near 17 cm depth, resulting in a calculated sedimentation rate:
17 cm / (56 y between 1954 and 2010) = **0.30 cm/y**

Sample Data	Visual	pCi/g dry	
Depth cm	Description	Pb-210	Cs-137
4 - 6	silt, clay, fine sand	1.52 ± 0.19	0.453 ± 0.079
8 - 10	silt, clay, fine sand	1.35 ± 0.15	0.491 ± 0.072
14 - 16	silt, clay, fine sand	1.12 ± 0.15	0.505 ± 0.063
18 - 20	clay, silt, fine sand	0.48 ± 0.09	< 0.049
22 - 24	clay, silt, fine sand	0.38 ± 0.08	< 0.046
26 - 28	clay, silt, fine sand	0.57 ± 0.10	< 0.053
30 - 32	clay, silt, fine sand	0.67 ± 0.10	< 0.045
34 - 36	clay, fine sand	0.49 ± 0.10	< 0.040
38 - 40	clay, fine sand	0.50 ± 0.09	< 0.036
52 - 54	clay, fine sand	0.46 ± 0.09	< 0.042
76 - 78	clay, fine sand	0.59 ± 0.09	< 0.054
112 - 114	clay, fine sand	0.49 ± 0.09	< 0.050

APPENDIX F—
BATHYMETRY REPORT

2010 Bathymetry Survey Report
Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

November 17, 2010

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ACRONYMS

CTD	conductivity, temperature, depth
DTM	digital terrain model
GAMS	GPS Azimuth Measurement Subsystem
GPS	global positioning system
IMU	inertial measurement unit
kHz	kilohertz
MBE	multibeam echosounder
MRU	motion reference unit
NAD	North American Datum
NAVD88	North American Vertical Datum of 1988
QC	quality control
RTK	real-time kinematic
R/V	Research Vessel
TtEC	Tetra Tech EC, Inc.
VCF	Vessel Configuration File

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Section 1
Overview

This document describes a survey that was conducted for Lockheed Martin in Middle River, Maryland, by Tetra Tech (Tt) in August 2010. The primary survey equipment included dual multibeam echosounder (MBE) sonar systems and associated vessel navigation and attitude measurement equipment. These systems were used to map site bathymetry and characterize bottom conditions of Dark Head Cove, Cow Pen Creek, and their confluence area to support sediment studies and potential remedial actions at Lockheed Martin's Middle River Complex. Table 1-1 lists the personnel that supported the bathymetric survey and their roles.

Table 1-1 Survey Team

Name	Project Role
Robert Feldpausch	Project Manager/Principal Hydrographer
Brent Johnston	Project Field Lead
Burton Bridge	ACSM Certified Hydrographer
Eric Taylor	Survey Vessel Captain
Chris Burt	RTK GPS Technician/Data Analyst

Section 2
System Setup

Tt conducted the survey with the Research Vessel (R/V) Storm, a 21 foot jet boat (Figure 2-1). Tt configured the R/V Storm with dual MBE systems. The sonar heads were installed with roll offsets of approximately 30 degrees, one to port and one to starboard, allowing survey of structures and shoreline areas up to near the water surface, geometry permitting. This dual-head configuration provided wider swath coverage and eliminated the need to change the mounting angle of the sonar head for different parts of the survey, with the attendant requirement to re-do the patch test calibration each time the sonar head is installed.

The equipment used for the survey is shown in Table 2-1. Data sheets for the main survey systems are included in Appendix C. Data collection and navigation software for the bathymetry survey was HYPACK®/HYSWEEP® v2010 sp1.

The sonars used for the survey were dual RESON SeaBat 7125, currently the highest resolution commercial multibeam sonars available. The 400 kHz 7125 ultra-high-resolution multibeam systems provide a 1-degree beamwidth along track and a 0.5-degree beamwidth across track, at nadir. The SeaBat 7125 uses 256 dynamically focused receiver beams covering a 128-degree swath, with a depth resolution of 6 millimeters (0.24 inches). These systems provide extremely high-resolution data that, when used in conjunction with comparable accuracy motion, heading, and position sensors, can show very fine detail in the morphology of the river bottom and in the structure of man-made objects.

Tt used a high quality motion reference unit (MRUs), the Applanix POS MV WaveMaster on the R/V Storm. This device is a high resolution and high accuracy sensor that combines an inertial measurement unit (IMU) and two real-time kinematic (RTK) global positioning system (GPS) antennas to aid in the measurement of vessel roll, pitch, heave, position and heading. The Applanix POS MV WaveMaster is capable of maintaining usable position data during short GPS dropouts.

These systems were used in conjunction with Leica 1230 RTK GPS systems, which provided the primary elevation data. The Leica antenna was mounted directly over the sonar.

2.1 INTERCONNECTIONS

Figure 2-2 shows the data flow and communications setup for the devices that made up the survey system on the R/V Storm.

2.2 OFFSETS

2.2.1 Device Offsets

Spatial offsets are precisely defined for the multibeam sonar, attitude sensor, and GPS antennas, so that the HYPACK/HYSWEEP acquisition software can accurately combine and convert the sonar and support sensor relative data into the survey coordinate system and units (XYZ positions on the earth) during collection.

These offsets are also used to establish a vessel configuration file (VCF) for data processing in CARIS®. The offsets stored in the VCF are used by CARIS to do its conversion of raw sensor data to soundings in the survey coordinate system. The equipment locations on the Tt survey vessel were measured using total stations. All equipment installed was measured relative to the location and orientation of the inertial measurement unit (IMU) of the Applanix POS MV WaveMaster. Verification was performed by comparing the results and through use of the POS MV WaveMaster's GPS Azimuth Measurement Subsystem (GAMS) calibration (refer to Section 2.2.2).

2.2.2 Vessel Offsets

The IMU location was used to define the origin and orientation of the X, Y, and Z axes of the vessel's local reference frame. Table 2-2 shows the offsets, measured in feet, which were used for the HYPACK and HYSWEEP hardware setup on the vessel. These measurements were also applied to the VCF for multibeam data processing using CARIS HIPS 6.1 software.

2.3 SONAR MOUNT CONFIGURATION

The dual SeaBat 7125 sonar heads were installed on a retractable bow mount on the on the R/V Storm (Figure 2-3). The sonars were rotated 30 degrees from nadir to allow for both port and starboard riverbank surveys without the need to reconfigure hardware and re-analyze the installation

with a new patch test. This allowed for increased efficiency and greater swath coverage resulting from the separation between the two heads, while at the same time providing approximately 35 degrees of overlap between the two sonars in the nadir region. As seen in Figure 2-3, the bow mount system allows the sonar to be rotated up to allow for quick transit between survey locations, or if necessary, to make adjustments or repairs to the system.

2.4 GEODESY SETTINGS

Horizontal (X, Y) positioning and sounding data for the project were converted to NAD-83 State Plane, Maryland and elevation data were referenced to the NAVD-88 geoid. Table 2-3 presents the geodesy settings used for the project.

2.5 GPS CONTROL AND VALIDATION

Vertical and horizontal positioning on the survey vessel was achieved using high accuracy GPS systems with RTK corrections, provided via base station (Figure 2-4). A Leica 1230 GPS identical to the system utilized on the survey boat was used daily to verify the functionality and accuracy of the RTK GPS positioning. One or more control points were occupied each survey day and the RTK GPS provided positional data were logged. Table 2-4 presents the control points used for GPS control and validation. Also included in this table are the results from initial checks on the control point locations, which were conducted on August 2 and 3, 2010, prior to survey operations. Survey control MIDR14 was used as the primary control point. The RTK GPS base station was setup on this control point daily. The coordinate system is NAD83 Maryland State Plane; the unit of measurement is US survey feet, and the reference height is the NAVD-88. Appendix B lists the points occupied by Tt for the purpose of quality control (QC) throughout the duration of the multibeam survey.

Table 2-1 Survey Equipment

Sensor Type	Manufacturer and Model
Multibeam Sonar	Dual RESON SeaBat 7125sv
Motion Reference Unit	Applanix POS MV WaveMaster
Heading	Applanix POS MV WaveMaster
Elevation	Leica 1230 RTK GPS
Position	Applanix POS MV WaveMaster
Sound Speed Profiler	Falmouth NIXC

Table 2-2 R/V Storm Sensor Offsets (all measurements in feet)

Sensor	Across	Along	Vertical
Valid 7/29			
SeaBat 7125 (bow mount port)	-1.09	13.99	0.35
SeaBat 7125 (bow mount starboard)	1.06	14.02	0.28
Motion Sensor/Navigation (POS MV WaveMaster)	0.00	0.00	0.00
GPS Tide (Leica RTK antenna)	-0.05	14.09	-5.95

Table 2-3 Survey Geodesy Settings

Parameter	Setting
Grids	State Plane NAD-83
Zone	MD-1900 Maryland
Distance Unit	US Survey Feet
Depth Unit	US Survey Feet
Elevation	NAVD-88

Table 2-4 Survey Geodesy Control Points (all measurements in feet)

ID	Easting	Northing	NAVD88	3DCQ	E_DIFF	N_DIFF	Z_DIFF	DELTA_XY
Murphy Geomatics Established Points				Tt Observed values				
MIDR14	1473058.99	605839.29	33.3	N/A - Utilized as RTK GPS base station control.				
MIDR15	1472951.24	605929.11	36.79	0.03	0.06	0.08	0.09	0.10
MIDR13	1473332.41	605708.09	25.42	0.01	0.04	0.04	0.09	0.05
MIDR12	1473070.68	605665.45	29.42	0.05	0.03	0.09	0.12	0.09



Figure 2-1 Tt Survey Vessel R/V Storm

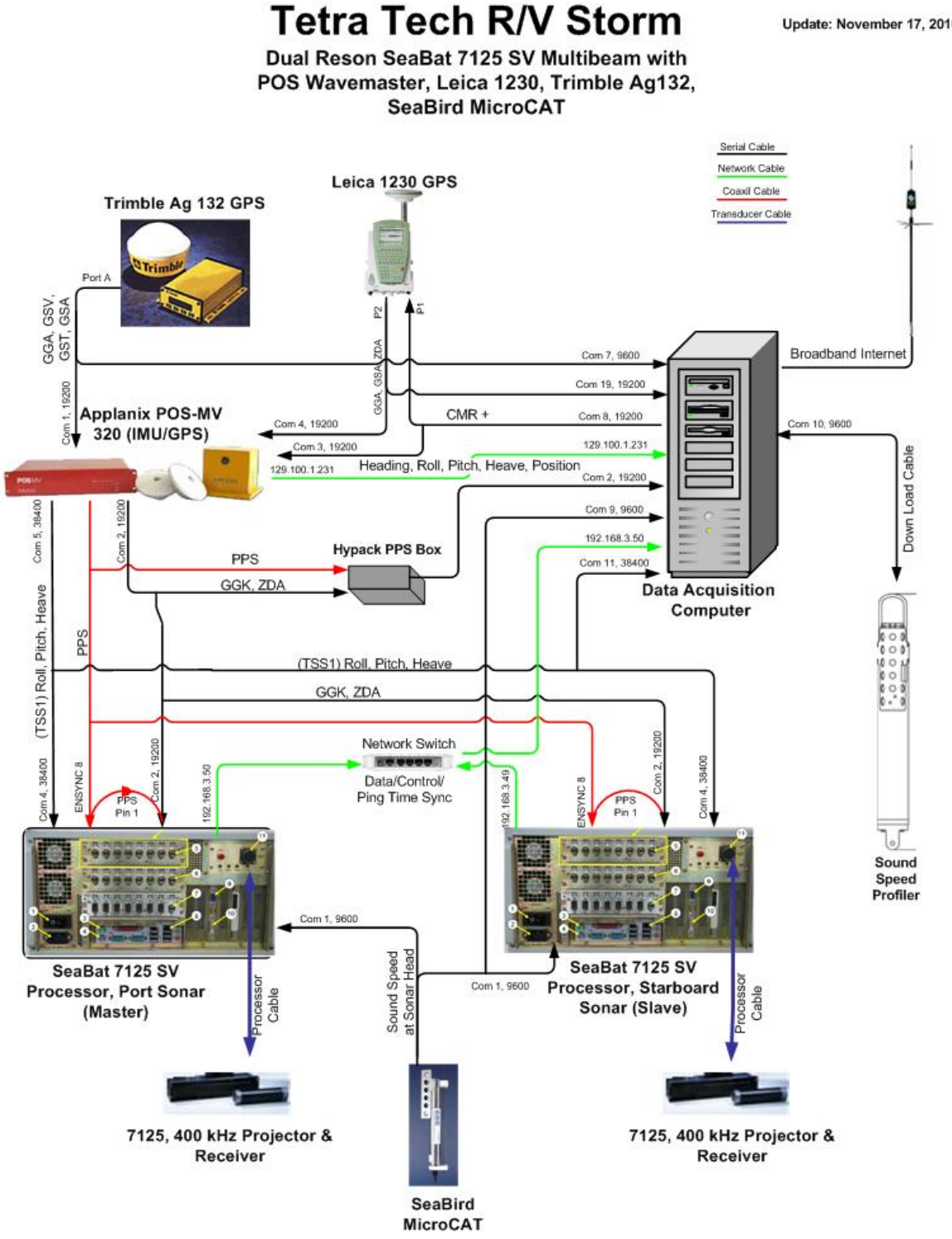

Figure 2-2 Dual RESON SeaBat 7125 SV Multibeam Survey System and Ancillary System Configuration on the R/V Storm

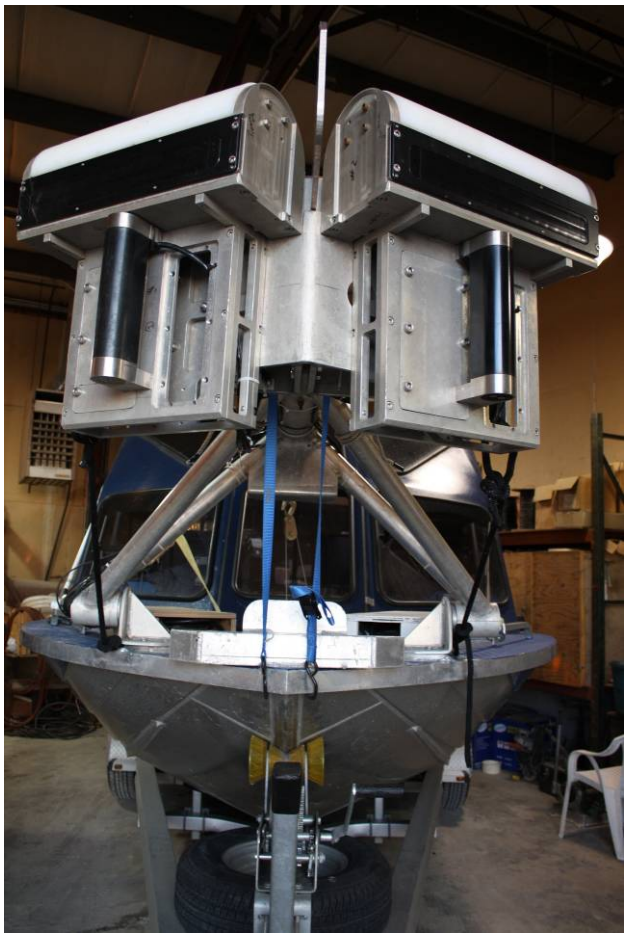

Figure 2-3 R/V Storm with dual SeaBat 7125 in a Bow Mount Configuration.

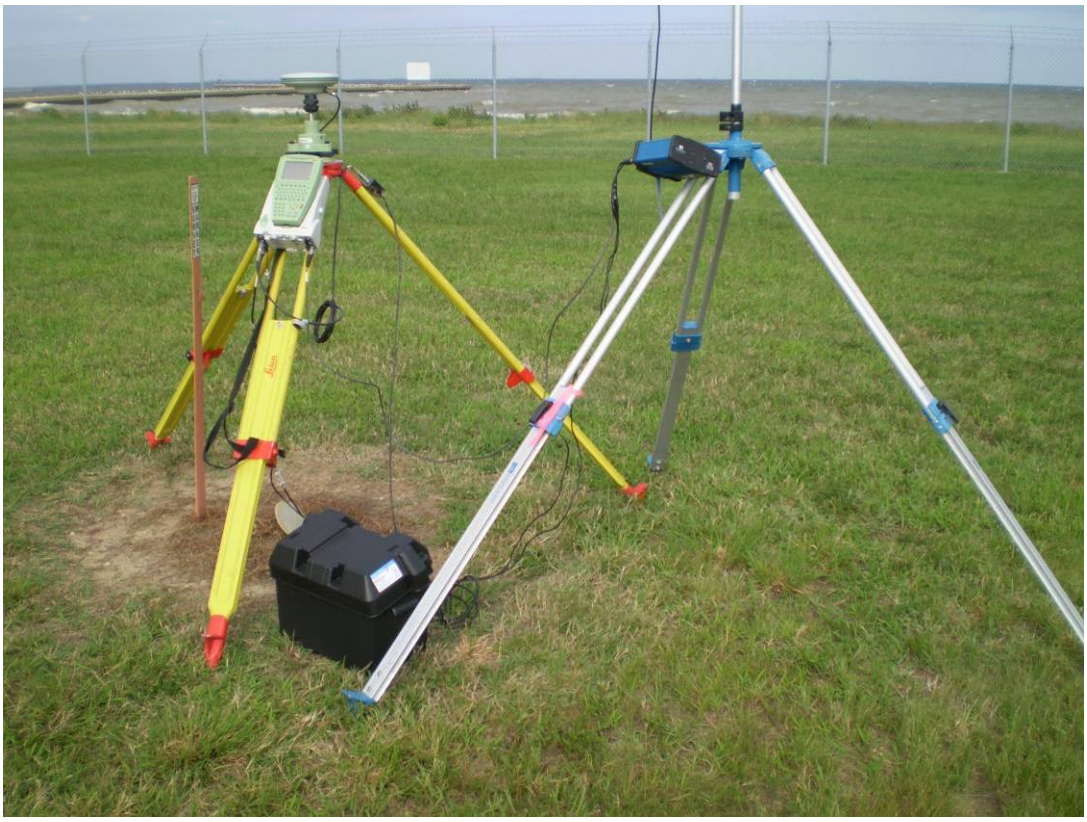

Figure 2-4. Example Base Station set-up on benchmark showing the Lieca GPS unit (left) and the Pacific Crest Modem (right) used to broadcast the RTK corrections to the boat and Rover GPS unit.

Section 3
Survey Procedures

A bathymetry survey was conducted to document the elevation of bottom sediments in Middle River. Dual RESON SeaBat 7125 multibeam sonars were used to provide the highest possible resolution and survey coverage.

The support sensors used to measure vessel attitude (roll, pitch, and heave), position, heading, and sound speed through the water column were selected to ensure that the associated accuracies were commensurate with the accuracy and resolution of the sonar. The specifications and accuracies for primary survey systems can be found in Appendix C.

RTK GPS was used for height (Z), as well as position (X and Y), to compensate for changes in water surface elevation, vessel squat and settlement (the general difference between the elevations of a vessel when at rest and when making may, caused by a local depression of the water surface), and varying draft caused by vessel loading. Use of RTK GPS for height is typically known as "RTK tides." With RTK tides any changes in the elevation of the water surface are recorded and compensated for in real time and in the post-processed sounding data.

3.1 MOTI ON SENSOR CALIBRATION

Prior to performing a multibeam system installation calibration test (i.e., a "patch test") and whenever necessary, as automatically detected and advised by the Applanix software (POSView), an alignment calibration was performed of the Applanix motion and heading sensor. This procedure, which Applanix refers to as a GPS Azimuth Heading Measurement Subsystem (GAMS) calibration, utilizes software integrated into the motion sensors. The GAMS calibration procedure is initiated while the survey vessel maneuvers in a figure 8 pattern. This calibration procedure allows the POSView software to calculate offsets between the motion sensor's two GPS antennae and align the measured heading with the vessel, resulting in achievement of the POS MV WaveMaster specified heading accuracies, which range from 0.02 to 0.06 degree (refer to Appendix C).

3.2 MULTIBEAM CALIBRATION — PATCH TEST RESULTS

A standard patch test also known as an installation calibration test was carried out to calculate the angular offsets between the multibeam echosounders and the MRU. The installation calibration process is used to derive the roll, pitch, and yaw angular offsets between the multibeam sonar and the local reference frame defined by the MRU's IMU. The installation calibration test is also used to determine latency (i.e. mismatches in time synchronization) in the positioning equipment). The sonar and acquisition computer are time-synchronized by the MRU's GPS; as a result, no latency was detected between sensors.

For dual-head systems, such as those used for this project, each sonar head is independently calibrated to determine its roll, pitch, and yaw offsets from the motion/heading system.

The offsets shown in Table 3-1 were calculated from a patch test conducted on August 1, 2010. The calculated angular offsets were applied in the HYPACK for accurate data acquisition and during data post processing in the CARIS VCF.

The sonars on the vessel were calibrated in Chesapeake Bay; a line comparison was conducted at the survey site to confirm the calibration values established during the above mentioned patch test. When the patch test was conducted, data were collected as follows to determine roll, pitch, and yaw angular offsets between the sonars and MRU:

- **Roll—**reciprocal lines surveyed over a flat bottom
- **Pitch—**reciprocal lines surveyed over a sloping bottom, or a distinct linear feature
- **Yaw—**offset lines surveyed over a sloping bottom, or a distinct linear feature

Table3-1 Multibeam Patch Test Results

Vessel	Sonar Head	Latency	Roll	Pitch	Yaw	Dates Valid
R/V Storm	1	0.00	28.9	0.6	0.0	Entire Survey
R/V Storm	2	0.00	-31.3	1.1	0.0	Entire Survey

The data were processed and the calibration offsets calculated using the patch test toolkits included in CARIS software. Data were collected so that at least two independent data sets could be used to derive each measurement, thus providing additional confidence in the final result.

3.3 DAILY QUALITY CONTROL PROCEDURES

Each day two types of QC procedures were performed on the boat: a bar check to confirm the sonar's ability to record accurate depth measurements, and a water level check to verify accurate vertical referencing of the data. The bar check was carried out by suspending a flat aluminum plate on a calibrated line directly below the sonar. The depth of the plate below the water surface was recorded and compared to the value reported by the HYSWEEP Bar Check Utility. Results for this test are summarized in Appendix B. The water level check compares the water level reported by the HYPACK acquisition software to the value measured at the same time at the river bank by a field technician using a Leica 1230 RTK GPS rover identical to the model installed on the survey boat. This test verifies proper installation offsets on the vessel and that the GPS is configured properly and receiving accurate real-time corrections. The results of the water level check are provided in Appendix B.

3.4 SOUND SPEED CASTS

Changes in sound speed through the water column affect the MBE's individual beams in both the angle and distance calculated from the propagation times. To compensate for these effects, data processing must model the effects as a function of beam launch angle and time. To implement these calculations, sound speed profiles are recorded through the water column using conductivity, temperature, depth (CTD) sensors from which sound speeds versus depths are derived.

Sound speed casts were performed at various times throughout the survey, including at the beginning and end of the each day of sonar surveying.

3.5 DATA ACQUISITION AND PROCESSING QUALITY CONTROL

Data quality is established when data are collected through proper setup and operation of the survey systems, and cannot be enhanced during processing other than to remove obviously invalid data.

Data quality can be assessed explicitly: a single data element is compared directly with a standard or known control. Alternatively, quality can be assessed implicitly: combinations of data elements are compared with members of their own set for internal consistency. Additionally, quality can be

measured quantitatively (numerically) or qualitatively, requiring interpretation on the part of an operator.

Where possible, a quantitative measurement of data quality is identified for each data type acquired. Procedures are constructed to measure this quantity as near as practicable to the point of acquisition. These measurements of quality are continuously assessed throughout the acquisition and processing phases of the project. In addition, an interpretive or qualitative method is contrived to estimate data quality where a quantitative measure of data quality cannot be developed.

Data that fail to meet minimum quality standards are discarded and re-acquired. A number of individual data elements are required to calculate a sounding. These elements include sounder data, vessel attitude, sound velocity profile, water surface elevation, draft, and position. The failure of any data element to meet minimal quality requirements will result in the dismissal of the entire concurrent data set.

Field methods used for measuring data quality begin with position accuracy. At the completion of each survey line, the lead acquisition hydrographer reviews the positions of identifiable features in the online HYPACK®/HYSWEEP® coverage plots. This software allows the user to compare the results of the positions measured for consistency within the lines and against external references. Positions of well-defined features, mapped on overlapping lines, should agree to within a few decimeters. Lines that contain positions that exceed contract specifications are flagged for complete or partial reruns as appropriate.

Motion data are also scrutinized. These data are more difficult to assess for quality than vessel position because data are acquired using only one system and it cannot be checked against itself. Consequently, the heave component of the motion data set is merged with the soundings from the vertical beam. A timing error in either of these systems will result in a residual oscillation in the measured depth. Amplitude errors in the heave record will have a similar effect.

Sounding data from the MBE are subject to interpretive and quantitative measurements of data quality. During acquisition, sonar operators monitor data quality on the multibeam monitor and HYPACK acquisition screens. The general noise level of the soundings and useable swath width are visible on the SeaBat monitor. Custom screens in HYPACK and HYSWEEP allow the operator

to view a digital terrain model (DTM) of average depths, waterfall displays, and individual profiles. These displays require interpretation and are used as the first quality check on multibeam data.

The data are viewed again as they are cleaned (flagged for exclusion from the final data set) and edited. In CARIS, lines can be examined for obvious errors. By this time, however, the multibeam data are bundled with all their ancillary data elements: sound velocity profiles, tide, static draft, squat and settlement, heave, pitch, and roll.

All bathymetry data are processed in CARIS and Fledermaus, with final charts produced using Fledermaus and ArcGIS.

The visualization tools available in the processing software provide clear indications of any problems in the motion sensor data, or in the time correlation of the echosounder and motion data. Any errors in these areas will result in identifiable data artifacts. Conducting at least preliminary processing of the bathymetry data on the vessel allows any problems to be detected and corrected quickly, and will ensure that a full, high-quality data set is collected.

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Section 4
Bathymetry Results

The multibeam sonar used for this survey provides extremely high-resolution data, which, when used in conjunction with comparable accuracy motion, heading, and position sensors, can show fine detail in the morphology of the river bottom. Sample results of the multibeam bathymetry are shown in Figures 4-1 through 4-3.

4.1 BATHYMETRY REPEATABILITY/ACCURACY

Accuracy and precision are a function of the positioning and attitude measurements errors, timing errors, water depth, and water sound velocity profile.

One of the key variables in this equation is the RTK GPS. This component of the system is evaluated for accuracy by occupying a known benchmark with a GPS rover unit. Real-time corrections were broadcast by a Pacific Crest Modem connected to the base station. Occupying a known benchmark verifies the accuracy of these corrections that are used during data collection.

Errors are minimized through good survey procedures, as defined in the U.S. Army Corps of Engineering and Design Hydrographic Surveying manual (EM 1110-2-1003), equipment manufacturers' documentation, and other references. Invalid data are identified and eliminated through appropriate processing and visualization tools. The effects of any remaining outlier data are minimized by collecting massively redundant measurements. In shallow water, even with a small, 3 foot grid size, the systems employed for this survey typically provide tens to hundreds of individual soundings in each grid cell.

The most influential factor on being able to repeat the survey with the same accuracy was the presence of dense aquatic vegetation. Due to the extremely high density of vegetation it clogged the vessel's jet intake, the sonar heads and the sound velocity profiler attached to the heads (Figures 4-5 through 4-7) and required breaks in the survey for removal. Dense vegetation can lead to misrepresentations of the bottom's morphology causing a false bathymetric appearance. Vegetation

caught on the sonar projector or receiver can give the sonar operator a misleading speed of sound which can lead to the operator adjusting the sonar incorrectly for the bottom type. To limit the impact of vegetation on data quality soundings resulting from vegetation rather than the bottom were removed, to the extent possible, during data processing.

4.2 BATHYMETRY SURVEY DATA SUMMARY

The Middle River bathymetry survey mapped in high detail the morphology of Dark Head Cove and, to the extent possible with the present of dense vegetation, Cow Pen Creek. The water depths within the survey area ranged from 0.5 to 13.7 and averaged 8.8 U.S. survey feet as referenced to NAVD88. This data, which has been gridded at 3x3 feet, provides mudline elevations for the site which can be used for sediment transport modeling. The mudline elevations can also be used to support dredge or capping design efforts, design dredge cuts and to calculate dredge and capping volumes. Obstructions proud of the bottom can be identified within the data, including docks, aquatic vegetation and boat ramps (refer to Figure 4-4).

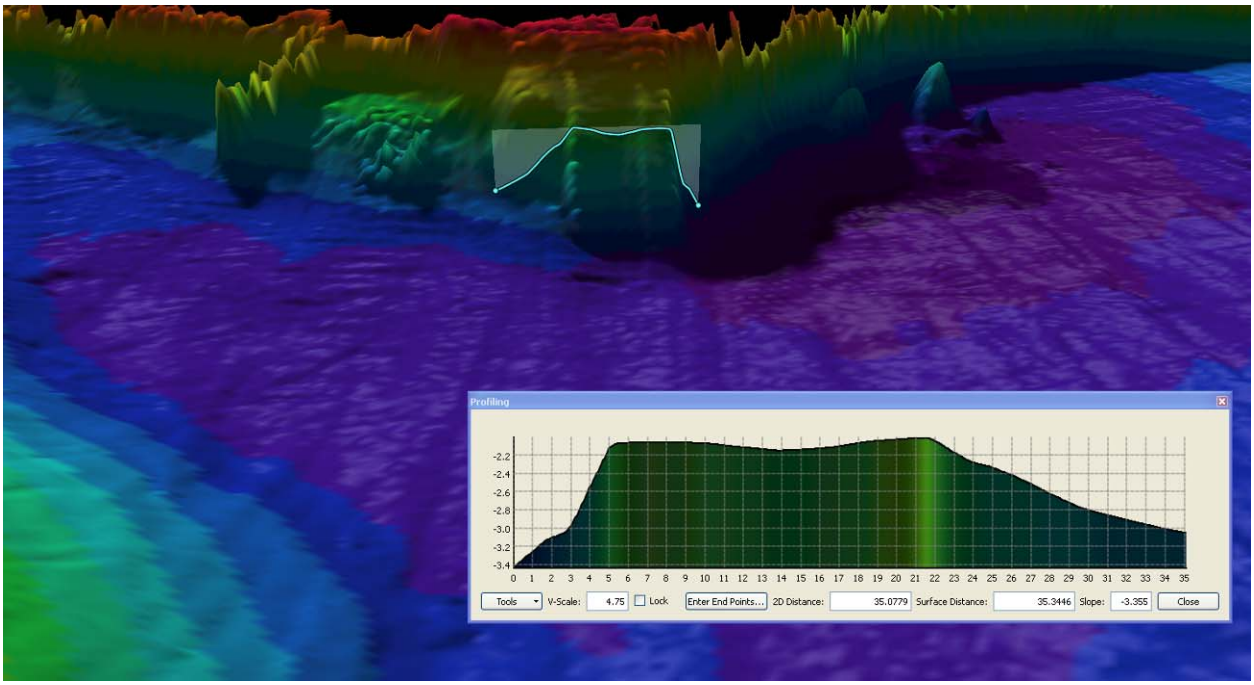


Figure 4-1 Fledermaus bathymetry surface of a boat ramp in the northwest section of the survey area, with a 2-D profile. 3-D view is from the southwest, looking towards the northeast. Vertical exaggeration is 10x.

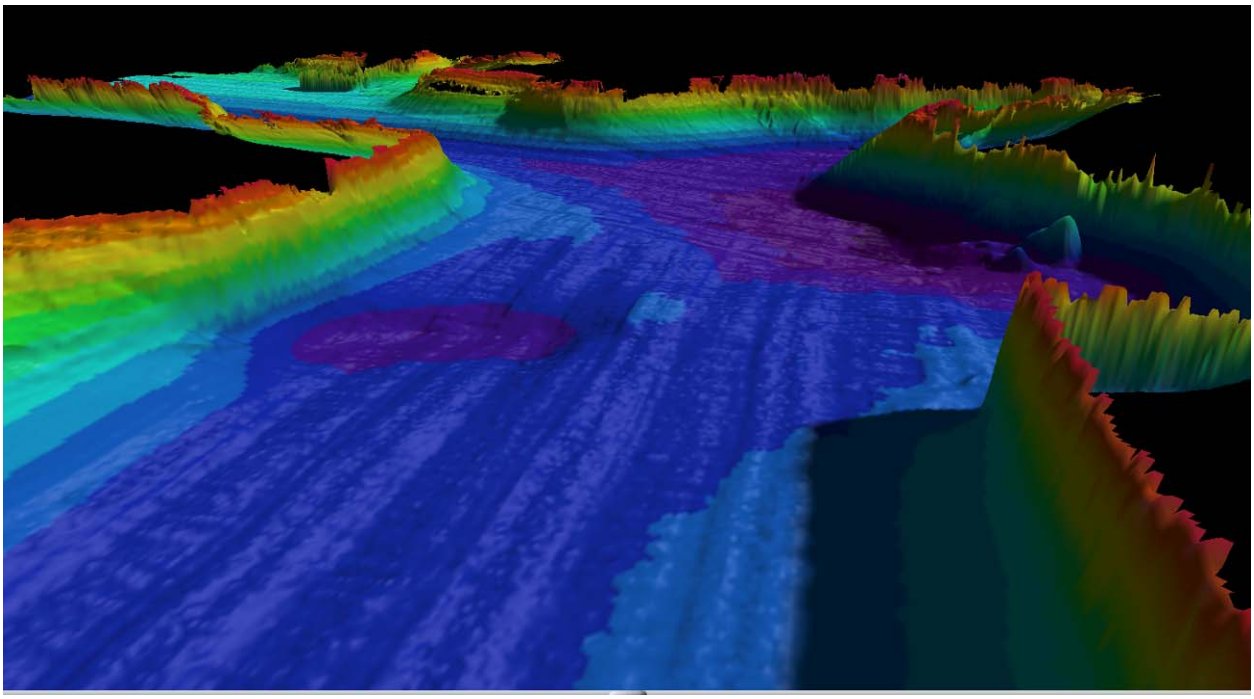


Figure 4-2. Fledermaus bathymetry surface of the survey area. 3-D view is from the northeast, looking towards the southwest. Vertical exaggeration is 10x.

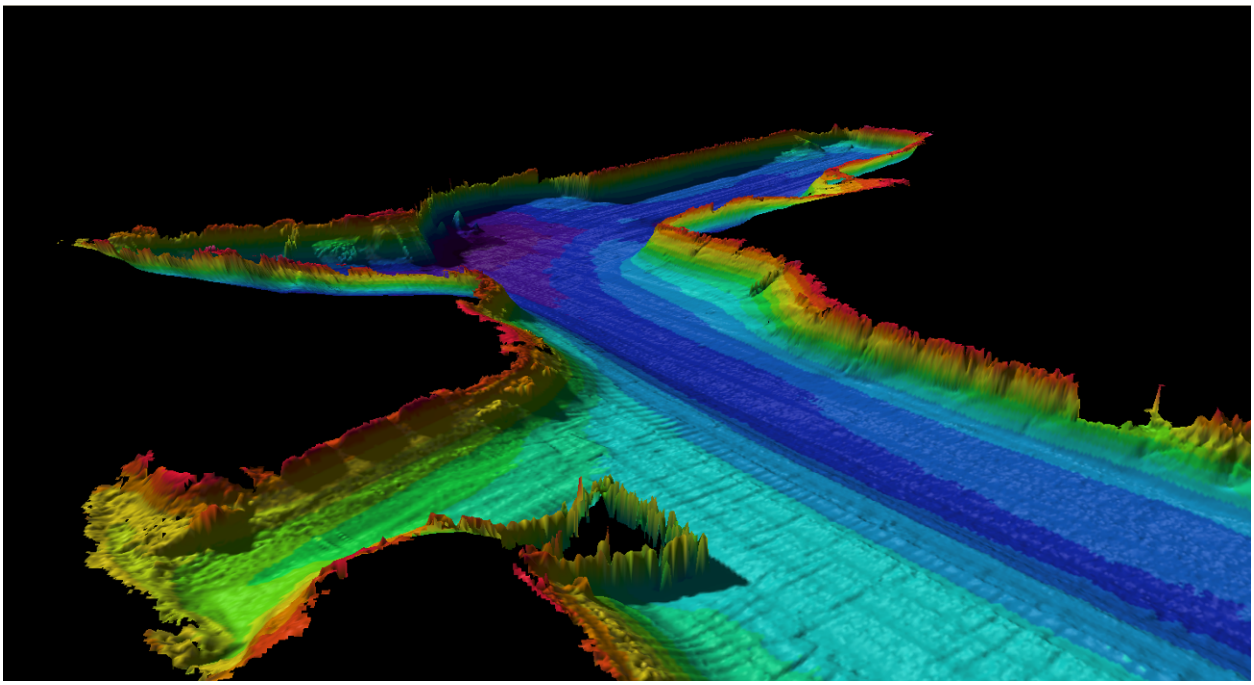


Figure 4-3 Fledermaus bathymetry surface of the survey area. 3-D view is from the southwest, looking towards the northeast. Vertical exaggeration is 10x.

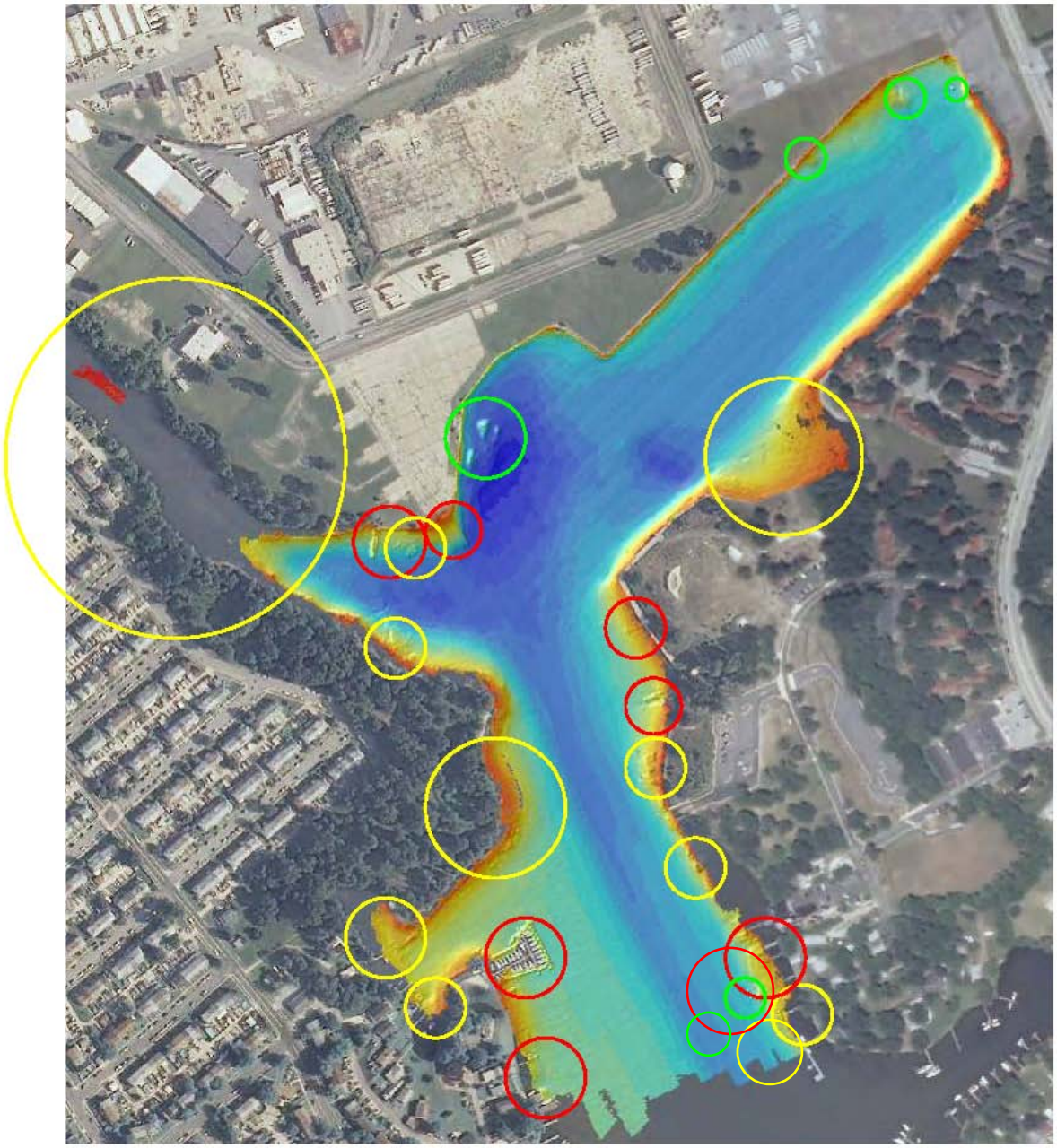


Figure 4-4 Bathymetry surface of the survey area. Red circles highlight areas of potential obstructions related to marinas, including docks and pilings (both in use and abandoned), as well as boat docks. Yellow circles highlight areas of particularly dense vegetation. Green circles highlight various other, unidentified features proud of the bottom.



Figure 4-5. Representation of the quantity of vegetation present at various locations within the survey site



Figure 4-6 Vegetation in the jet intake resulted in limited maneuverability and an increase in down time for removing vegetation from the intake.



Figure 4-7. Vegetation entangled in the survey equipment

Appendix A

GPS Control Point Data Sheets

(as provided by Murphy Geomatics)

Northing (Y)(ft)	Easting (X)	Elevation
605118.73	1479564.03	10.27
604186.62	1480249.92	16.58
604234.71	1480149.08	19.01
604503.91	1479618.82	12.18
604720.39	1479040.69	12.08
607006.42	1473300.22	25.62
606982.21	1473663.22	19.45
606732.08	1473767.03	18.36
605393.39	1474121.35	11.27
605622.58	1474087.19	10.88
606331.32	1473917.44	13.45
605987.16	1473941.7	11.97
606688.14	1473176.23	28.4
606599.75	1473208.97	28.59
606585.59	1473516.33	23.47
606462.64	1473188.17	32.95
606245.5	1473324.8	24.8
605815.39	1473627.07	20
605969.98	1473402.03	23.32
605708.09	1473332.41	25.42
605585.3	1473302.33	25.5
605665.45	1473070.68	29.42
605929.11	1472951.24	36.79
605566.73	1472715.42	33.87
605839.29	1473058.99	33.3
606003.41	1472682.41	36.73
605686.93	1472741.08	34.88
605836.76	1472142.62	32.19
605581.73	1472324.46	34.7
606027.39	1472196.59	33.06
605772.29	1472243.61	32.9
605920.27	1472008.77	25.88

Northing (Y)(ft)	Easting (X)	Elevation
606010.86	1472115.44	31.4
605935.75	1472173.97	32.35
606068.5	1472047.95	30.39
606306.53	1471997.23	31.12
606530.3	1471995.32	33.09
606655.64	1472190.33	37.3
606725.46	1472407.17	36.31
606811.39	1472645.13	36.49
604082.81	1479669.34	10.31
604369.27	1479444.66	10.77
604166.05	1480305.66	13.93
603959.79	1480438.2	9.19
604044.68	1480412.59	8.86
603874.53	1480465.56	0
605123.36	1479099.47	8.47
604975.31	1479074.26	6.59
605063.41	1479203.72	8.06
605072.55	1479373.55	7.1
604992.57	1479599.53	8.81
604862.16	1479697.9	12.34
604697.77	1479787.27	19.05
604516.42	1479747.96	14.72
605159.08	1478893.84	6.6
604570.5	1479466	10.65
604726.44	1479034.55	12.03
604857.88	1479197.09	7.35
604445.83	1479310.41	11.39
604017.53	1472002.78	21.14
604363.85	1472403.78	14.39
604256.24	1472318.89	16.42
604864.92	1473388.92	15.7
605128.46	1474066.9	10.08

Appendix B

Positioning QC/ Water Level QC and Bar Check Results

Positioning QC Check Results (units are in feet)

ID	Date	Time	Easting	Northing	NAVD88	3DCQ	E_DIFF	N_DIFF	Z_DIFF	DELTA_XY
MIDR15 QC 080310A	8/3/2010	9:54	1472951.20	605929.03	36.63	0.08	0.04	0.09	0.16	0.09
MIDR15 QC 080410B	8/4/2010	6:33	1472951.19	605929.03	36.70	0.03	0.06	0.08	0.09	0.10

Water Level QC Check Results (units are in feet)

Date	Lieca Rover Ht.	Hysweep Tide	Pitch Corr.	Ave IMU Draft	Corr. Tide	Difference	ABS(Diff)
8/4/2010	0.73	0.00	0.01	0.88	0.89	-0.16	0.16

Bar Check Results (units are in feet)

Date	Bar Depth	Meas. Depth	Sonar Draft	Pitch	Pitch Corr.	Corr. Depth	Diff.	ABS(Diff.)
8/4/2010	7.00	5.85	0.95	-0.88	0.22	7.02	-0.02	0.02

Appendix C

Equipment Data Sheets

Equipment Data Sheets

The following are copies of the equipment data sheets provided by the manufacturers of the primary systems used during the bathymetry survey.

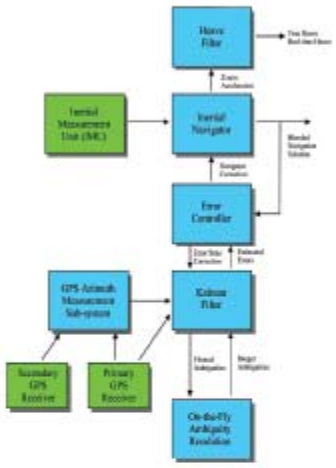
POS MV™ WaveMaster

Providing the Marine Industry with robust, reliable, and repeatable position and orientation solutions in all dynamics

Accurate Position and Orientation Solution
POS MV WaveMaster maintains positioning accuracy under the most demanding conditions. With its high data update rate, the system delivers a full six degree-of-freedom position and orientation solution to provide the following:

- Position (latitude, longitude and elevation)
- Velocity (north, east and vertical)
- Attitude (roll, pitch and true heading)
- Heave (real-time, delayed)
- Acceleration Vectors
- Angular Rate Vectors

The new POS MV WaveMaster generates a tightly-integrated solution, which means the system's Inertial Navigator will provide continuous positioning information while surveying in areas where GPS reception is compromised by multipath effect and signal loss. Raw GPS data from as few as one satellite can now be processed directly within the WaveMaster.



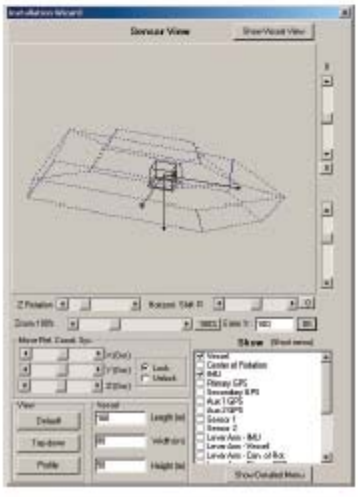
Tightly Coupled POS MV WaveMaster

Tightly-coupled integration offers the following advantages:

Advantage – Strengthens the system's ability to provide continuous, accurate data in areas with intermittent GPS reception
Advantage – Reduces position drift
Advantage – Enables almost instantaneous RTK re-acquisition (with internal RTK option)

WaveMaster Features and Benefits:

- Uses the latest GPS receiver technology from Trimble:
  - Maxwell™ chip technology
  - Everest™ multipath elimination technology
  - 10Hz raw observables for post-processing
  - Outstanding positioning performance and low elevation satellite tracking accuracy
- TrueHeave - Applanix's ground breaking delayed time heave processor
  - Removes processing artifacts but not real motion
  - No tuning required for varying sea conditions
  - Provides online quality measurement
- Faster CPU (700Mhz)
  - Low system loading allows for enhanced capabilities in the future
  - Runs at less than 10% of its total capacity to allow for upgrades and additional features
- TCP/IP protocol for raw data logging
  - Reliable logging of all raw data with microsecond-accurate time stamping
  - POSPac ready (for post-mission analysis)
- Firmware migration path
  - Access to new releases with new features as they become available
- New small, compact form-factor
- New Graphical User Interface
  - Makes installation and setup intuitive
  - Reduces operator error



SYSTEM COMPONENTS

POS Computer System (PCS)
A rugged, compact computer system contains the core POS processor and IMU interface electronics, plus two GPS receivers. The PCS provides all motion variables and timing data at high rate and/or provides motion compensation and georeferenceing data to all multibeam systems.

POS Inertial Measurement Unit
The system's primary sensor is a Ring Laser Gyro (RLG) manufactured by one of the world's experts in inertial technology. This high performance, low drift rate gyro ensures that the attitude data remains robust as the dynamics increase.

Primary and Secondary GPS Antennas
Dual frequency antennas for use with GAMS and/or RTK.

APPLANIX
A TRIMBLE COMPANY

POS MV™ WaveMaster

POS MV WAVEMASTER MAIN SPECIFICATIONS (with Differential Corrections)

Roll, Pitch accuracy:	0.03° (1 sigma with GPS or DGPS) 0.02° (1 sigma with RTK)
Heave Accuracy:	5 cm or 5% (whichever is greater) for periods of 20 seconds or less
Heading Accuracy:	0.06° (1 sigma) with 1 m antenna baseline, 0.03 (1 sigma) with 2 m baseline, 0.015 (1 sigma) with 4 m baseline
Position Accuracy:	0.5 - 2 m (1 sigma) depending on quality of differential corrections 0.02 - 0.10 m (RTK) with input from auxiliary RTK or optional internal RTK receiver
Velocity Accuracy:	0.05 m/s horizontal

POS MV WAVEMASTER DURING GPS OUTAGES

Roll, Pitch accuracy:	0.04° (1 sigma)
Heave accuracy:	5 cm or 5% (whichever is greater) for wave periods of 18s or less
Heading accuracy:	Drift less than 2° per hour
Position accuracy degradation:	3 m (1 sigma) for 30 s outages <10 m (1 sigma) for 60 s outages

PHYSICAL CHARACTERISTICS

Size

IMU	160mm x 160mm x 102mm
PCS	281mm x 165mm x 90mm
GPS Antenna (2)	187mm x 53mm

Weight

IMU	3.6kg
PCS	3.0kg
GPS Antenna	<0.5kg

Power

IMU	Power provided by PCS
PCS	24vdc, 50 W (peak)
GPS Antenna	Power provided by PCS

ENVIRONMENTAL

Temperature Range (Operating)

IMU	-40 °C to +60 °C
PCS	-20 °C to +60 °C
GPS Antenna	-40 °C to +70 °C

Temperature Range (Storage)

IMU	-40 °C to +60 °C
PCS	-20 °C to +60 °C
GPS Antenna	-40 °C to +70 °C

Humidity

IMU	10-80% RH, Ingress Protection of 65
PCS	5-90% RH, non-condensing
GPS Antenna	0-100% RH

Ethernet (100 base-T)

Parameters	Time tag, status, position, attitude, heave, velocity, track and speed, dynamics, performance metrics, raw IMU data, raw GPS data
Display Port	Low rate (1 Hz) UDP protocol output
Control Port	TCP/IP input for system commands
Data Port 1	Real-time (up to 200 Hz) UDP protocol output
Data Port 2	Buffered TCP/IP protocol output for data logging to external device

Serial RS232 I/O

5 COM Ports	User assignable to: NMEA output, Binary output, Auxiliary GPS input (2), Base GPS correction input (2)

NMEA ASCII Output

Parameters	NMEA Standard ASCII messages: Position ($INGGA, $INGGK), Heading ($INHDT), Track and Speed ($INVTG), Statistics ($INGST), Attitude ($PASHR, $PRDID), Time and Date ($INZDA, $UTC).
Rate	Up to 50 Hz (user selectable)

High Rate Attitude Output

Parameters	User selectable binary messages: attitude, heading, speed
Rate	Up to 100 Hz (user selectable)

Auxiliary GPS Inputs

Parameter	NMEA Standard ASCII messages: $GPGGA, $GPGST, $GPGSA, $GPGSV. Uses Aux input with best quality.
Rate	1 Hz

Base GPS Correction Inputs

Parameter	RTCM 1, 9, 18, 19, CMR and CMR+ input formats accepted. Combined with raw GPS observables in tightly-coupled navigation solution.
Rate	1 Hz

Digital I/O

1PPS Output	1 pulse-per-second Time Sync output, normally high, active low pulse
Event Input (2)	Time mark of external events. TTL pulses > 1 msec width, rising or falling edge, max rate 200 Hz.

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APPLANIX
A TRIMBLE COMPANY

SeaBat 7125

High-Resolution Multibeam Echosounder System



SeaBat 7125

- **Unparalleled Resolution and Installation Flexibility**
- **Single or Dual-Frequency Operation (200 and/or 400kHz)**
- **256 or 512 Focused 0.5° Beams at 400kHz (1° at 200kHz)**
- **128° Swath Coverage (4x Water Depth)**
- **400 meter Depth Rated (6000 meter option)**
- **Built-in test environment (BITE)**
- **Complies to IHO SP44 Special Order + USACE Class 1**



The new generation SeaBat 7125 represents yet another technological breakthrough in high quality performance. With unparalleled resolution and installation flexibility, the SeaBat 7125 is ideal for a great variety of hydrographic, offshore, military, bathymetric, sidescan & snippets applications from a surface vessel, ROV to 6000 meter depth.

The SeaBat 7125 is a single and / or dual frequency (200/400kHz) multibeam echosounder system. In the 200kHz configuration, the receiver forms 256 equi-angle or equi-distant dynamically focused 1° receive beams to cover a 128° swath, with a maximum range of 500 meters. In the 400kHz configuration, the receiver forms 256 equi-angle focused 0.5° receive beams or 512 in equi-distant mode, to cover a 128° swath, with ultra high resolution and a typical range of 200 meters.

The SeaBat 7125 is controlled by the 7-P, a high performance Sonar Processor that manages data flow and signal processing using a state-of-the-art FPGA architechture. The 7-P provides a Windows®-based GUI user interface, allowing system configuration, control, data output, storage and built-in test environment (BITE) displays to assist the operator.

Equi-distant or equi-angular beam spacing across the entire swath is selectable by the operator to provide uniform sounding density and maximize usable outer swath. Data logging of beamformed water column data or pre-beamformed stave data to a RAID disk system is also optionally provided.

The SeaBat 7125 receiver sonar head design provides increased bandwidth, improved dynamic range and noise immunity over earlier models and makes full use of Commercial-off-the-Shelf (COTS) hardware and software to increase cost effectiveness with a well defined path for future upgrades and expansion.

www.reson.com

SeaBat 7125

High-Resolution Multibeam Echosounder System

SYSTEM PERFORMANCE

Frequency:	200kHz	400kHz
Max Range:	500 m	200 m
Swath Coverage:	128°	128°
Beamwidth:	1° x 2°	0.5° x 1°
Number of Beams:	256 Equi-angle or Equi-distant	256 / 512 Equi-angle or 512 Equi-distant
Max Update Rate:	50 Hz	50 Hz
Waveform:	Gated CW	Gated CW
Depth Resolution:	5 mm	5 mm
Pulse Length:	33 to 300 µseconds	33 to 300 µseconds
Depth Rating:	400 m (standard) 6000 m (option)	400 m (standard) 6000 m (option)

INTERFACE

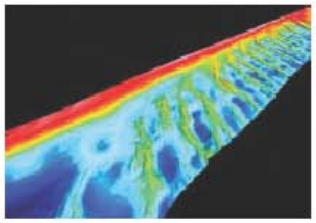
System Control:	7-P Processor Unit
Power Requirements:	48V DC 58W (Provided by sonar processor) 110/220 VAC 50/60 Hz, 300W
Data Transfer:	Ethernet, 1 Gbit

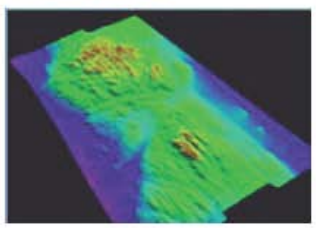
MECHANICAL

Weight:	200kHz	400kHz
Receive Array:	9.6 kg (dry), 4.6 kg (wet)	9.6 kg (dry), 4.6 kg (wet)
Transmit Array:	7.5 kg (dry), 6.4kg (wet)	2.75 kg (dry), 1.75 kg (wet)
7-L LCU:	15.7 kg (dry), 5.2 kg (wet) 7-P	15.7 kg (dry), 5.2 kg (wet) 7-P
Processor:	30 kg	30 kg
Dimensions:		
Receive Array:	102 x 496 x 131 mm	102 x 496 x 131 mm
Transmit Array:	100 x 259 x 117 mm	62 x 285 mm
Link Control Unit:	530.9 x 174 mm	530.9 x 174 mm
7-P Processor:	431 x 146 mm	431 x 146 mm
Temperature:	Operating: 0° to +40° C	Operating: 0° to +40° C
	Storage: -30° to +55° C	Storage: -30° to +55° C

OPTIONS

AUV Configuration	SVP-70 Sound Velocity Probe
Dual Frequency	Extended Warranty / Support & Maintenance Contracts
Mounting Bracket with Fairing	Beam Data Recording & High Speed Export (includes 1TB external RAID array)
10m Array to LCU Cable Set	Fiber-Optic Conversion for ROV Installations





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Version: B068 080219 / US



Specifications

Below are the general specifications for the NXIC CTD along with the specifications for the conductivity, temperature and pressure sensors.

Note: These specifications are subject to change without notice.

General

Power requirements:	Internal battery pack or 7–35 VDC @ 500 mA maximum when externally powered
External sensor power:	11 VDC nominal @ 50 mA maximum for any sensor; 150 mA maximum total for all the sensors
Depth rating:	500 m standard, Delrin housing
	7000 m optional, 64-AVL titanium housing
Sample rate:	1–15 S/sec, selectable
Resolution:	20 bits
Bulkhead connector:	Subconn MCBH4F, mates with MCIL4M
Real time clock:	Programmable alarm/sleep functions
Real time clock stability:	±5 ppm initial accuracy, ±12 ppm/year
Communication interface:	RS-232, RS-485 or CMOS TTL
Baud rate:	1200, 9600, 19200, 38400, 57600, and 115200
Data format:	8 data bits, 1 stop bit

Salinity calculation:	PSU-78
Sound velocity calculation:	UNESCO44
Warm up:	3 seconds after power up
Internal memory:	128 MB; 256 MB optional
Battery pack:	16 welded alkaline "C" cells; 3.2 V (nominal) at 40 A·h

Conductivity

Sensor type:	Non-external inductive cell
Range:	0–9.0 S/m (0–90 mS/cm)
Accuracy:	±0.0002 S/m (±0.002 mS/cm)
Stability:	±0.00005 S/m/month (±0.0005 mS/cm/month)
Resolution:	0.00001 S/m (0.0001 mS/cm)

Temperature

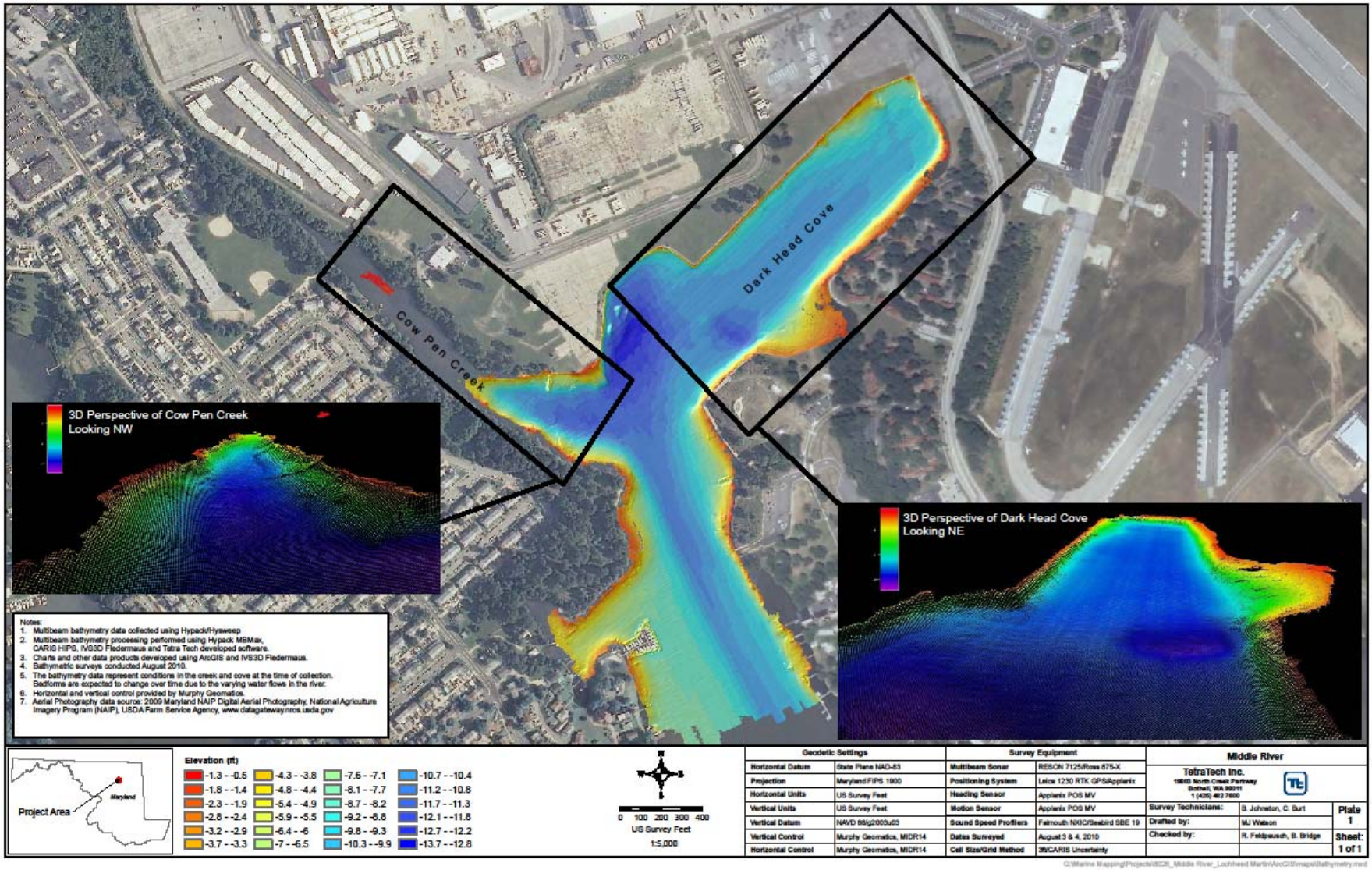
Sensor type:	Aged thermistor
Range:	-2–32°C standard, -5–45°C optional
Accuracy:	±0.002°C
Stability:	±0.0005°C/month
Resolution:	0.0001°C
Response:	100 msec

Pressure

Sensor type:	Precision micro-machined silicon transducer
Range:	Customer specified
Accuracy:	±0.02% of full scale
Stability:	±0.004% of full scale/month
Resolution:	0.001% of full scale
Response:	25 msec

Appendix D

Middle River Bathymetry 2010


Dark Head Cove
Cow Pen Creek
3D Perspective of Cow Pen Creek
Looking NW
3D Perspective of Dark Head Cove
Looking NE
Notes:
1. Multibeam bathymetry data collected using Hypack/Hysweep
2. Multibeam bathymetry processing performed using Hypack MBMax, CARIS HIPS, IVS3D Fledermaus and Tetra Tech developed software.
3. Charts and other data products developed using ArcGIS and IVS3D Fledermaus.
4. Bathymetric surveys conducted August 2010.
5. The bathymetry data represent conditions in the creek and cove at the time of collection. Bedforms are expected to change over time due to the varying water flows in the river.
6. Horizontal and vertical control provided by Murphy Geomatics.
7. Aerial Photography data source: 2009 Maryland NAIP Digital Aerial Photography, National Agriculture Imagery Program (NAIP), USDA Farm Service Agency, www.datagateway.nrcs.usda.gov
Project Area
Maryland
Elevation (ft)
-1.3 - -0.5
-1.8 - -1.4
-2.3 - -1.9
-2.8 - -2.4
-3.2 - -2.9
-3.7 - -3.3
-4.3 - -3.8
-4.8 - -4.4
-5.4 - -4.9
-5.9 - -5.5
-6.4 - -6
-7 - -6.5
-7.6 - -7.1
-8.1 - -7.7
-8.7 - -8.2
-9.2 - -8.8
-9.8 - -9.3
-10.3 - -9.9
-10.7 - -10.4
-11.2 - -10.8
-11.7 - -11.3
-12.1 - -11.8
-12.7 - -12.2
-13.7 - -12.8
0 100 200 300 400
US Survey Feet
1:5,000
Geodetic Settings
Horizontal Datum: State Plane NAD-83
Projection: Maryland FIPS 1900
Horizontal Units: US Survey Feet
Vertical Units: US Survey Feet
Vertical Datum: NAVD 88@2003u03
Vertical Control: Murphy Geomatics, MIDR14
Horizontal Control: Murphy Geomatics, MIDR14
Survey Equipment
Multibeam Sonar: RESON 7125/Reson 875-X
Positioning System: Leica 1230 RTK GPS/Applanix
Heading Sensor: Applanix POS MV
Motion Sensor: Applanix POS MV
Sound Speed Profilers: Falmouth NXIC/Seabird SBE 19
Dates Surveyed: August 3 & 4, 2010
Cell Size/Grid Method: 3M/CARIS Uncertainty
Middle River
TetraTech Inc.
10900 North Creek Parkway
Bothell, WA 98011
1 (425) 482 7600
Survey Technicians: B. Johnston, C. Burt
Drafted by: MJ Watson
Checked by: R. Feldpausch, B. Bridge
Plate 1
Sheet: 1 of 1

APPENDIX G—
SEDIMENT STABILITY ANALYSIS

Sediment Stability Analysis
Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

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SEDIMENT STABILITY ANALYSIS

INTRODUCTION

A modeling analysis was conducted to estimate the stability of bed sediment in the Cow Pen Creek and Dark Head Cove forks of Dark Head Creek, a tributary of the Middle River in Baltimore County Maryland. The analysis considered two extreme events: a high rainfall event in the Cow Pen Creek and Dark Head Creek watersheds and a historical storm surge and accompanying period of high wind. The *Environmental Fluid Dynamic Code* (EFDC) [Hamrick, 1992; Tetra Tech, 2007; United States Environmental Protection Agency (USEPA), 2007] was used for the modeling analysis, which involved determining bed stresses during simulated events. This appendix documents the modeling analysis, including model configuration, event selections, and presentation and discussion of the model predictions of sediment stability.

MODEL CONFIGURATION

The EFDC model was configured to simulate flow in the study region, which includes Cow Pen Creek, Dark Head Cove, and Dark Head Creek. The model grid is shown in Figure 1 and has approximately 50 feet (15 meter) square grid-cells. Bathymetric and topographic data for model configuration include a recent bathymetric survey conducted by Tetra Tech during August, 2010 and National Oceanic and Atmospheric Administration (NOAA) “Coastal Relief” bathymetry and topography. Figure 2 shows the extent of the bathymetric survey, and Figure 3 shows the interpolated and estimated bathymetry over the entire grid. Site vegetation precluded collecting bathymetric data in the upstream area of Cow Pen Creek, so a minimum water depth of one foot [30 centimeters (cm)] was used for this area and blended with the measured bathymetry. For the downstream area of Dark Head Creek, an open boundary bathymetric profile consistent with the NOAA “Coastal Relief” was developed for the open boundary row of cells and blended with the measured bathymetry upstream in the creek.

The model was further configured to simulate two extreme events. The first is a high rainfall-runoff event based on a 100-year annual recurrence interval 24-hour rainfall of 8.7 inches (24.7 cm). The runoff volumes from the Cow Pen Creek and Dark Head Cove watersheds were estimated using the "Simple Method" for estimating runoff from urban areas (SMRC, 2010). Data requirements for this approach include the sub-watershed drainage area, impervious cover, and precipitation.

The sub-watersheds of the study area were delineated using available data sources. Elevation contours derived from U.S. Geological Survey (USGS) 10-meter digital elevation models (USGS, 2009) of the study area were the primary source of information. The watershed delineation also incorporated site utility information for Chesapeake Park, owned by LMC Properties, Inc. The sub-watershed delineations of Cow Pen Creek and Dark Head Cove are shown in Figure 4.

General land use/land cover data sets for the sub-watersheds were extracted from the *National Land Cover Dataset* (NLCD) database (MRLC, 2001). NLCD data were derived from satellite imagery taken circa 2001 and provide detailed categorization of urban and natural areas. Land use categories were divided into separate pervious and impervious land units based on the impervious percentages description provided in the NLCD metadata. Table 1 presents the land use distributions of the Cow Pen Creek and Dark Head Cove sub-watersheds.

Rainfall totals were taken from rainfall frequency data released by the NOAA "Precipitation Frequency Data" server. Rainfall frequency data for the study area are presented in Table 2 and may be accessed at http://hdsc.nws.noaa.gov/. Using the data sets described above, peak runoff volumes were estimated for the two watersheds for a 24-hr 100-year storm. These runoff volumes result in a 49 cubic feet per second (cfs) [1.39 cubic meters per second (cms)] flow into Cow Pen Creek and a 66 cfs (1.88 cms) flow into Dark Head Cover. A spring tide with range of 1.58 feet (0.48 meter) (NOAA, 2010) was applied to the model at the open boundary at the mouth of Dark Head Creek for this event.

Table 1.
Land use areas for the Cow Pen Creek and Dark Head Cove sub-watersheds

Land use description	% Impervious	Area (acres)		% area	
		Cow Pen Creek	Dark Head Cove	Cow Pen Creek	Dark Head Cove
Open water	100.0%	8.2	25.8	2.3	4.1
Developed, open space	10.0%	56.0	66.5	15.4	10.5
Developed, low intensity	34.5%	87.0	61.4	24.0	9.7
Developed, med. intensity	64.5%	94.7	111.6	26.1	17.6
Developed, high intensity	90.0%	35.6	70.5	9.8	11.1
Barren	50.0%	0.9	5.3	0.2	0.8
Deciduous forest	0.0%	49.1	208.8	13.5	32.9
Evergreen forest	0.0%	2.2	4.4	0.6	0.7
Pasture/hay	0.0%	16.7	50.3	4.6	7.9
Cultivated crops	0.0%	8.9	23.1	2.5	3.6
Woody wetlands	0.0%	9.6	26.9	2.6	4.2
Herbaceous wetlands	0.0%	2.0	5.3	0.6	0.8
Total (excluding open water)		362.7	634.3	100	100

Table 2.
Rainfall frequency totals for the study area

Annual recurrence interval (years)	Rainfall frequency total (in)									
	5-min	10-min	15-min	30-min	60-min	120-min	3-hr	6-hr	12-hr	24-hr
1	0.35	0.55	0.69	0.95	1.18	1.41	1.52	1.9	2.3	2.69
2	0.41	0.66	0.83	1.15	1.45	1.72	1.85	2.3	2.78	3.26
5	0.49	0.79	1	1.42	1.82	2.17	2.34	2.91	3.54	4.21
10	0.55	0.88	1.11	1.61	2.1	2.53	2.73	3.4	4.19	5.04
25	0.62	0.99	1.25	1.86	2.48	3.02	3.29	4.14	5.17	6.3
50	0.67	1.07	1.36	2.04	2.77	3.43	3.74	4.76	6.04	7.43
100	0.72	1.15	1.46	2.23	3.07	3.85	4.23	5.44	7	8.7
200	0.77	1.23	1.55	2.41	3.38	4.3	4.74	6.18	8.08	10.13
500	0.83	1.32	1.66	2.64	3.79	4.92	5.47	7.26	9.72	12.33
1,000	0.88	1.39	1.74	2.82	4.12	5.43	6.07	8.18	11.15	14.27

The second modeled event is based on the historical storm surge and winds associated with Hurricane Isabella in September 2003. Figure 5 shows the water surface elevation at the NOAA station in Baltimore Harbor, which was used for the tidal boundary condition. In addition to the surge, the September period includes a spring tide. The wind forcing is based on observed wind speed (Figure 6) and direction at Baltimore Washington International (BWI) Airport.

EVENT SIMULATION RESULTS

The high rainfall-runoff event was simulated as a continuous inflow of 49 cfs (1.39 cms) into Cow Pen Creek and 66 cfs (1.88 cms) into Dark Head Cove, accompanied by a 1.58 foot (0.48 m)-range spring tide at the mouth of Dark Head Creek. The resulting distribution of maximum sediment-bed stresses is shown in Figure 7. Bed stresses are less than 0.1 Newtons per square meter (N/m^2)over most of the study area except for the upstream area of Cow Pen Creek, where the maximum stresses reach 4 N/m^2. Field investigations of critical bed stresses for the erosion of cohesive sediments in the Chesapeake Bay region (Maa, et al., 1998, 2002, 2008) indicate 0.1 N/m^2 as a lower boundary for the critical erosion stress for surface sediments, with the critical stresses increasing with depth in the sediment bed. Maa (2008) observed maximum sediment erosion rates on the order of 0.0001 gram per square meters per second (gm/cm^2-sec). Sand and noncohesive-behaving silt beds are also stable at stresses below 0.1 N/m^2, as shown in Figure 8 (Garcia, 2008).

The storm surge and wind simulation was executed for the entire month of September 2003 and maximum bed stresses in each model grid cell were determined from the model output. The distribution of maximum bed stresses is shown in Figure 9. Stresses are less than 0.1 N/m^2 over much of the area, with high stresses again occurring in the upstream area of Cow Pen Creek. Bands of high stress occur along the southwest shoreline of Dark Head Cove and in Dark Head Creek. To determine the relative importance of the wind forcing, the surge simulation was repeated without wind, using the stress distribution shown in Figure 10. Stresses associated with only the storm surge are below 0.03 N/m^2 over the entire area, indicating that the high wind speed in excess of 16 meters per second (m/s) [36 miles per hour (mph)] is primarily responsible for the higher stresses. This also confirms that normal tidal conditions, including monthly spring tides do not pose the potential for erosion. Since local sheltering effects are not accounted for, the wind-induced stresses can be viewed as conservative.

The general conclusion of the analysis is that the sediment bed is stable in the area of interest, except for the upstream area of Cow Pen Creek. This area has probably been eroded and renewed by new deposits relatively frequently, since shorter duration rainfall events with a lower annual recurrence interval can produce similar peak discharges at the 100-year 24-hour event. The 100-year 24-hour event was selected in this case since its duration could transport eroded material outside of the study area. This was confirmed by a dye simulation, which indicates that the mean travel time to the mouth of Dark Head Creek is about 0.5 days, with a dilution factor of 5. For settling velocities ranging from 0.01–0.001 cm/sec, and accounting for the 1 to 5 dilution to the mouth, the sediment concentration at the mouth of Dark Head Creek would range from 2–15% of the concentration of sediment suspended in the upstream area of Cow Pen Creek.

If the maximum erosion rate of 0.0001 gm/cm^2-sec occurred over the duration of the event and approximately 10,000 square meters (m^2) were affected, suspended sediment concentrations on the order of 7,000 milligrams per liter (mg/L) could occur for the 1.39 cms flow into Cow Pen Creek. The corresponding concentration range at the mouth of Dark Head Creek would be from 140–1,000 mg/L. For a sediment-bed dry density of approximately 1 gm/cm^3, an estimate of the depth of erosion from the one day event would be 10 cm.

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12) Versar, Inc., 2001. *Water Quality Management Plan for Middle River Watershed, Executive Summary*. Submitted to Baltimore County Department of Environmental Protection and Resources Management. 32 pp.

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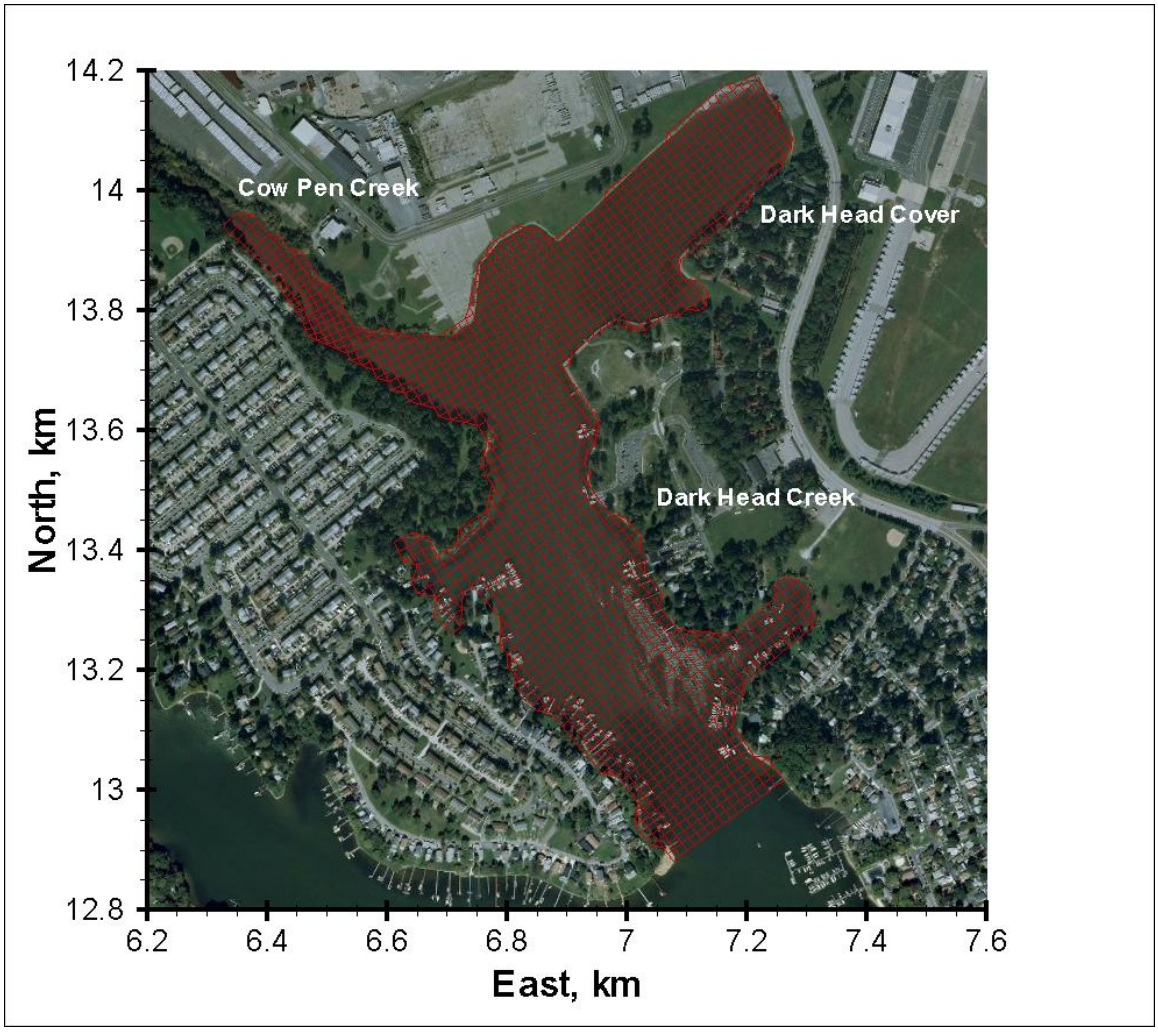

Figure 1. EFDC model grid of Dark Head Creek.

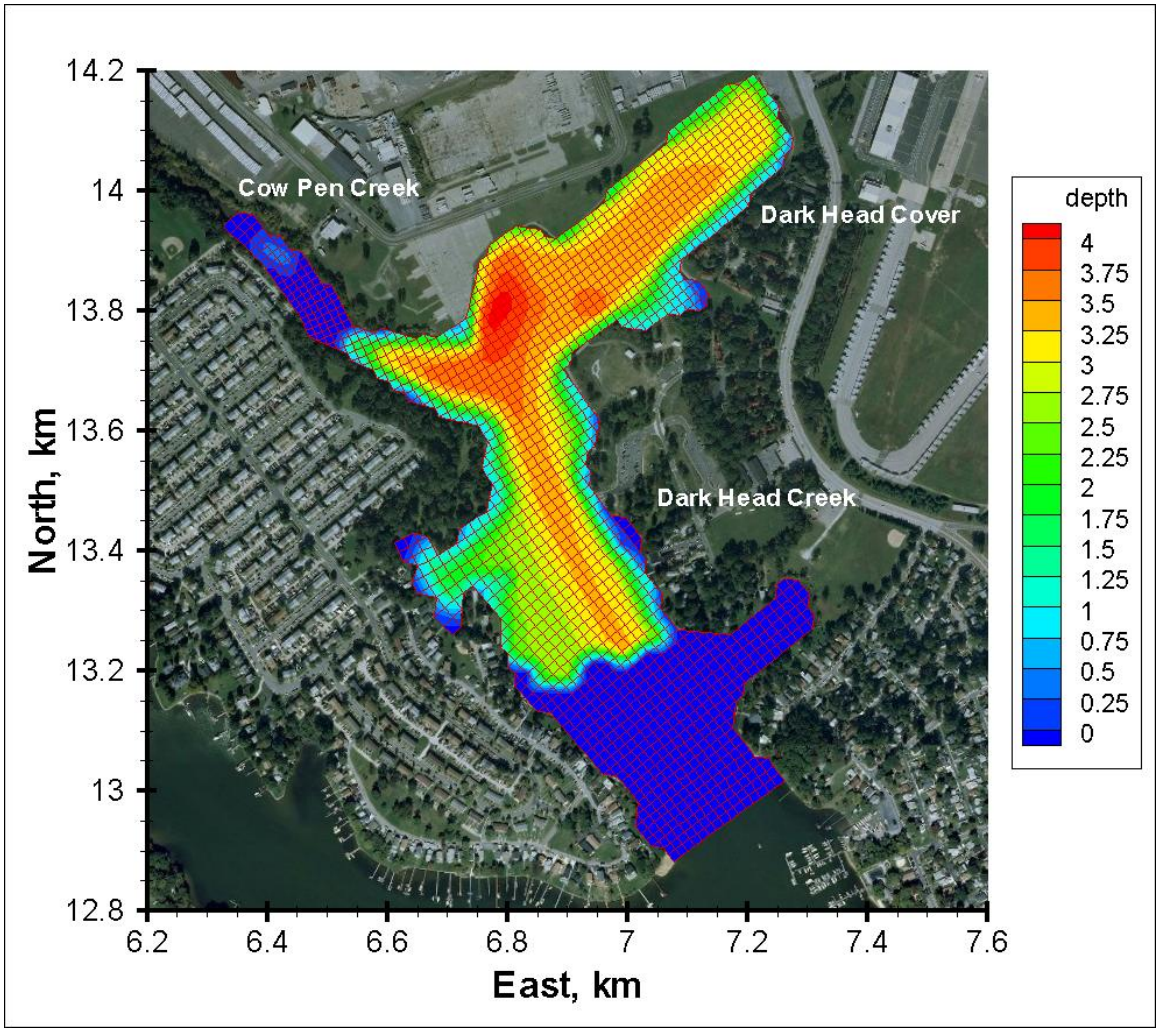

Figure 2. Extent of bathymetric survey shown on model grid. Depths are in meters below mean sea level. Darkest blue represents areas not surveyed.

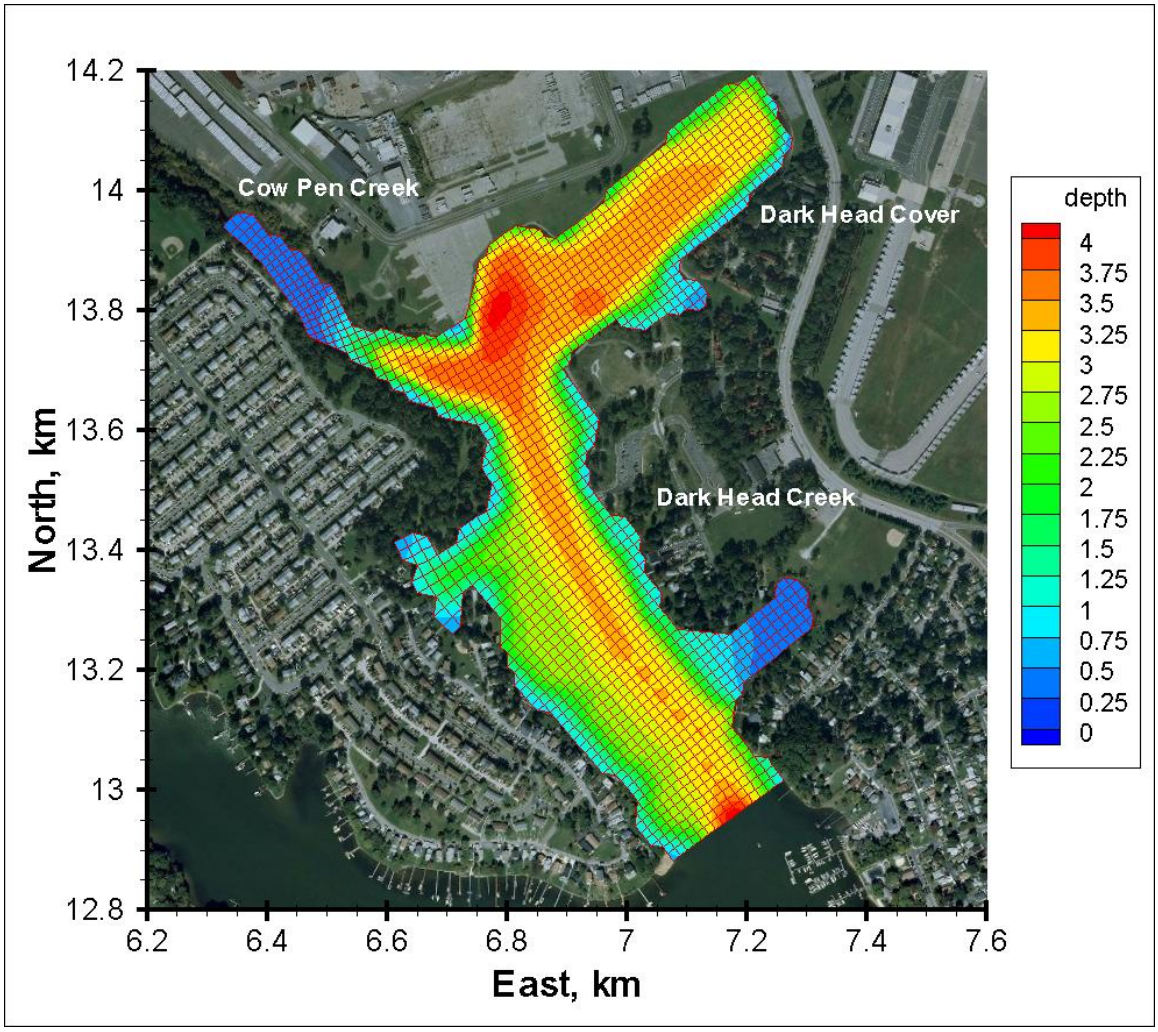

Figure 3. Model grid of Dark Head creek near the Middle River Complex site showing water depth in meters below mean sea level.

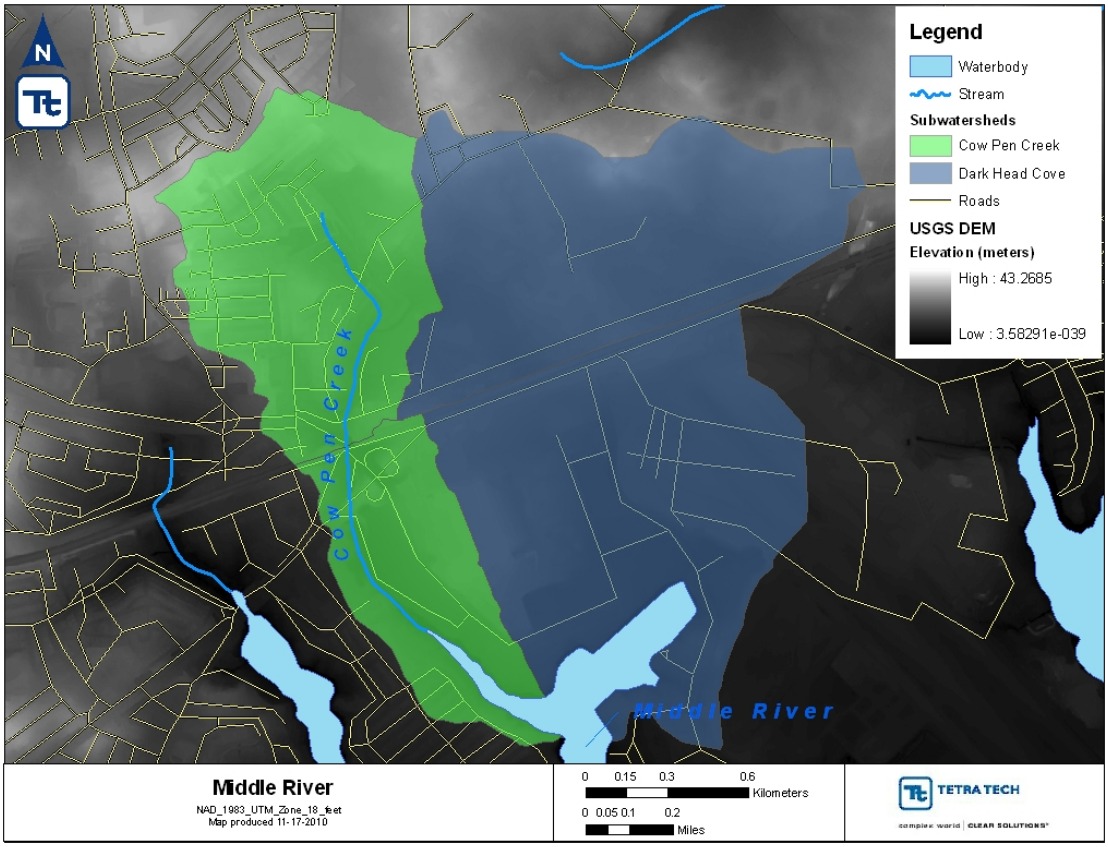

Figure 4. Cow Pen Creek and Dark Head Cove sub-watersheds

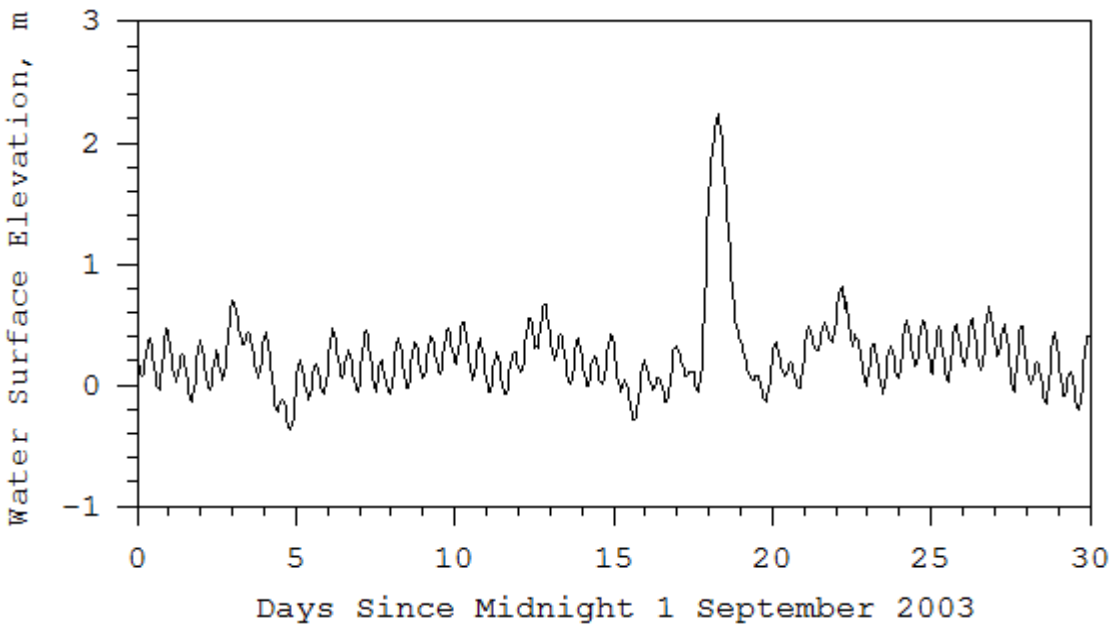

Figure 5. Water surface elevation at NOAA gage in Baltimore Harbor during September 2003, showing the Hurricane Isabella storm surge.

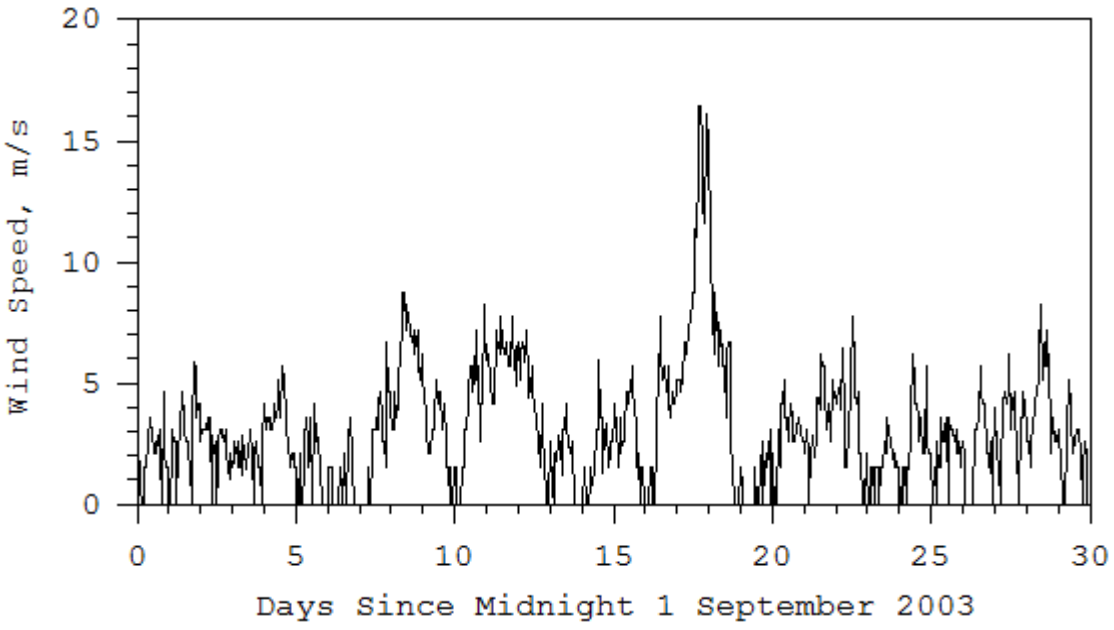

Figure 6. Wind speed at BWI Airport during September 2003.

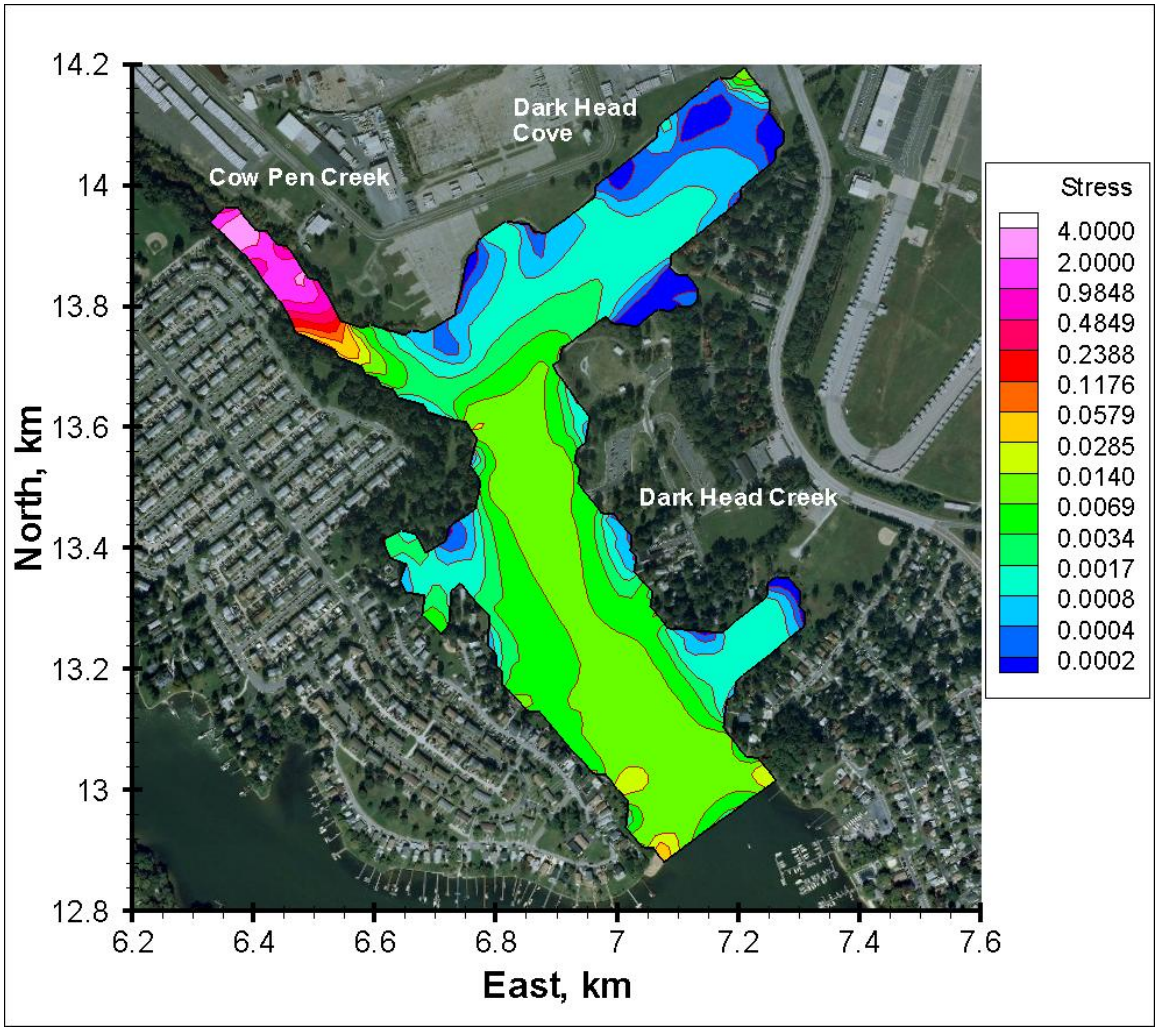

Figure 7. Distribution of maximum bed-stress (N/m^2) during a 100-year annual recurrence interval, 24-hour rainfall of 8.7 inches (24.7 cm). Daily rainfall event coincident with spring tide conditions.

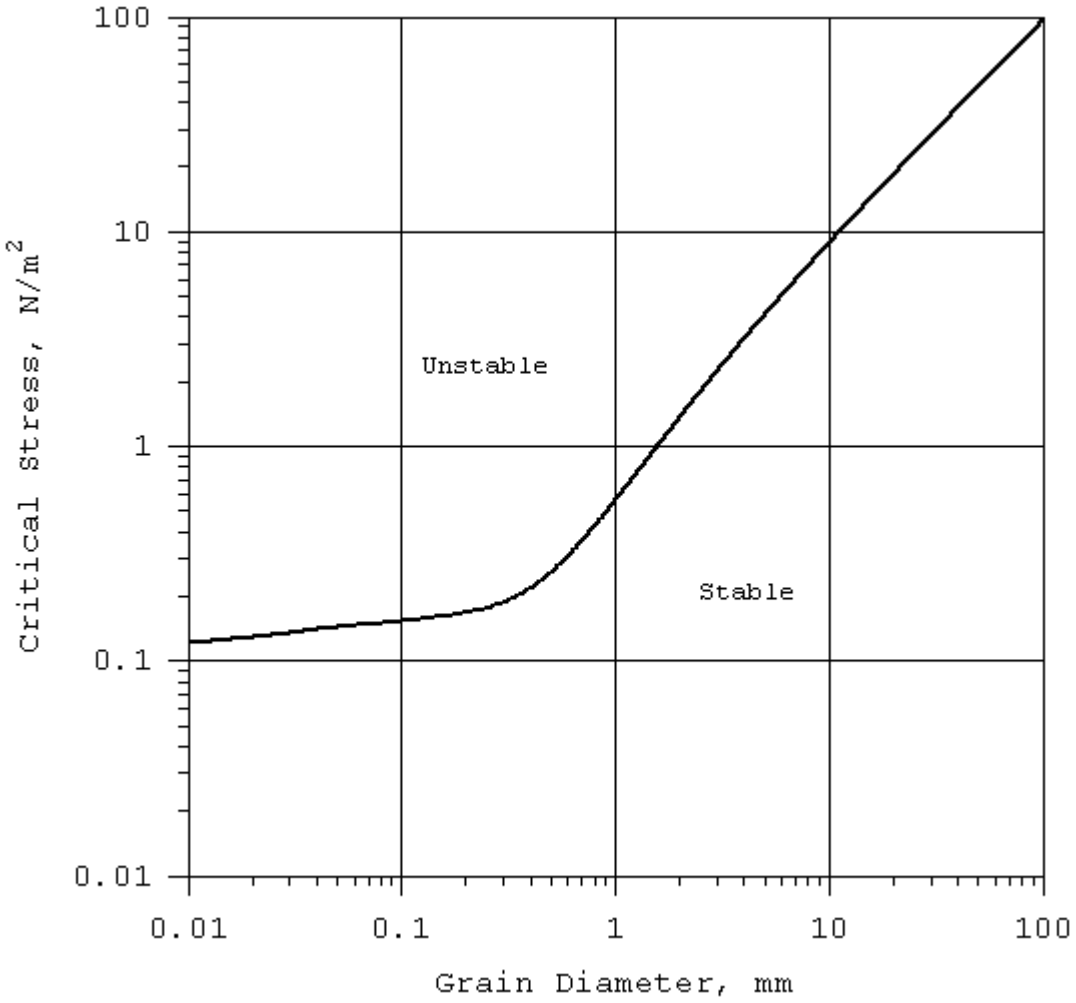

Figure 8. Modified Shield's diagram showing critical stress for erosion of noncohesive sediment as a function of grain diameter.

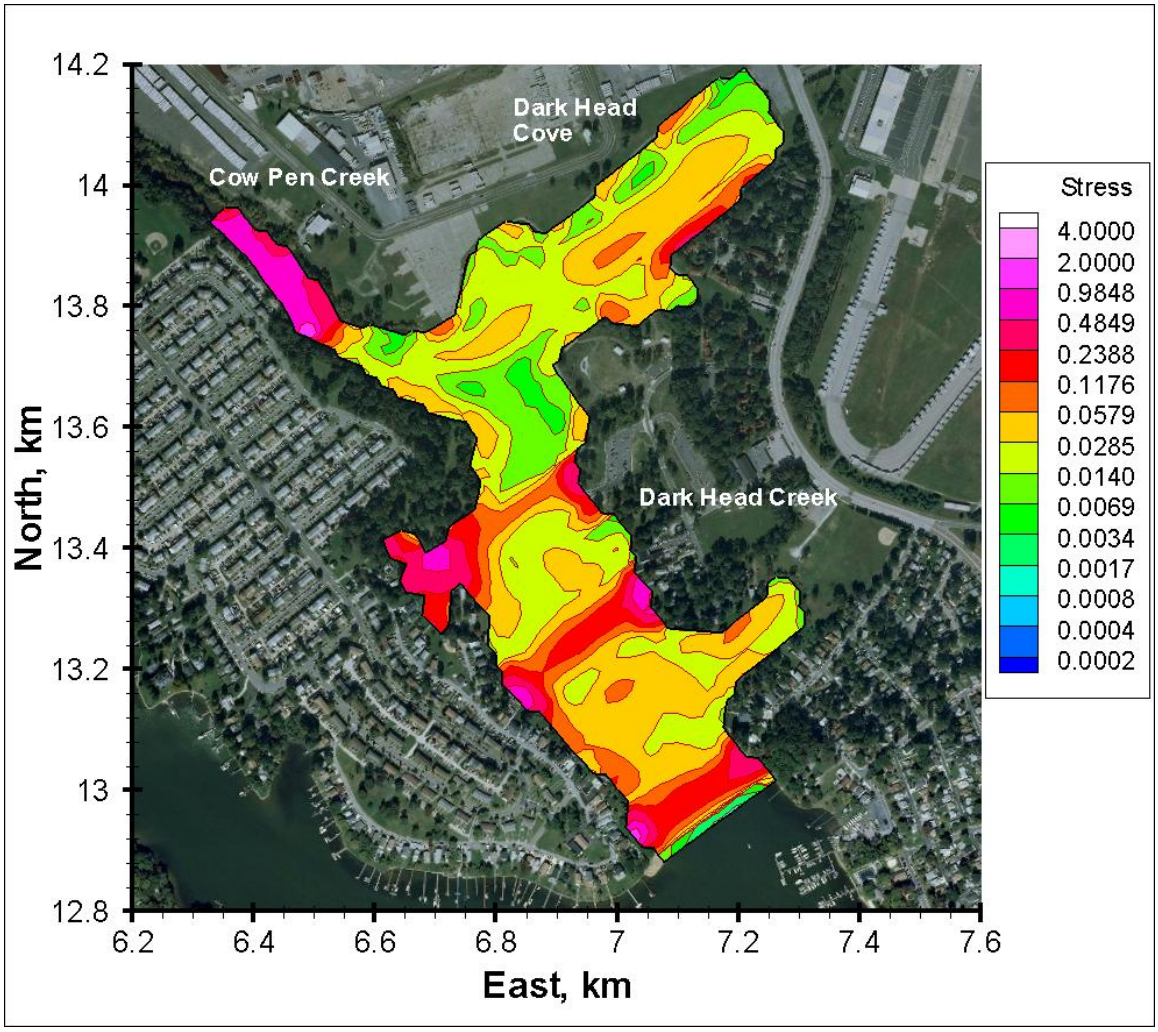

Figure 9. Distribution of maximum bed-stress (N/m^2) during Hurricane Isabella storm surge and winds, September 2003.

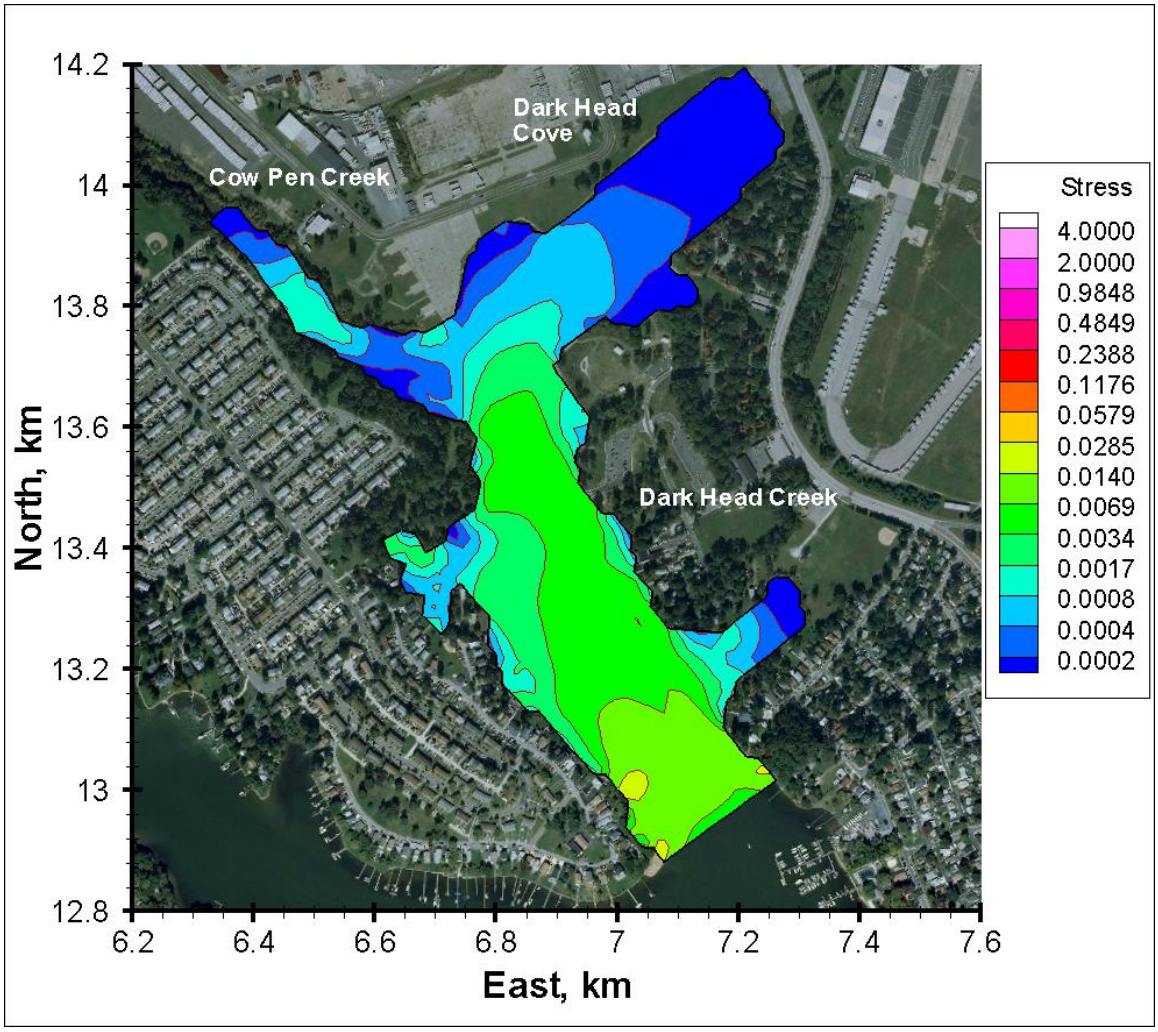

Figure 10. Distribution of maximum bed-stress (N/m^2) during Hurricane Isabella storm surge and winds, September 2003.

APPENDIX H—
BENTHIC INVERTEBRATE ASSESSMENT

Appendix H—
Middle River Benthic Report

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

January 2011

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ACRONYMS

CA	corrective action
CB-B-IBI	*Chesapeake Bay Benthic Index of Biotic Integrity*
MQO	measurement-quality objective
PDE	percent difference in enumeration
ppt	parts per trillion
PTC	percent taxonomic completeness
PTD	percent taxonomic disagreement
QC	quality control
SOP	standard operating procedure
USGS	United States Geological Survey

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Section 1
The Middle River Biological Assessment

Benthic macroinvertebrate samples were collected from 10 sites near Lockheed Martin's Middle River Complex in Middle River, Maryland. Two sites (Bowleys Quarters and Marshy Point) are in relatively undisturbed areas and considered to be of reference quality (see **Table 1**). Another site (Middle River Downstream) was intended to be a reference site, but was later discounted because of elevated levels of some metals in the surficial sediment. The test sites include two sites in Cow Pen Creek and five in Dark Head Cove.

Table 1—Site numbers, water body names, and related comments

Site	Water body	Comments
BN-BQ-1	Bowleys Quarters	Reference
BN-MP-1	Marshy Point	Reference
BN-MRD-1	Middle River Downstream	Initial reference—*discounted because of elevated metals*
BN-CPC-1	Cow Pen Creek (test)	Relatively large amounts of detritus
BN-CPC-2	Cow Pen Creek (test)	Relatively large amounts of detritus
BN-DHC-1	Dark Head Cove (test)	Relatively large amounts of detritus
BN-DHC-2	Dark Head Cove (test)	Relatively large amounts of detritus
BN-DHC-3	Dark Head Cove (test)	
BN-DHC-4	Dark Head Cove (test)	
BN-DHC-5	Dark Head Cove (test)	

The five replicate Petite Ponar® dredge samples taken at each site were combined for biological metric calculations (see **Attachment A**). The metrics include those of the *Chesapeake Bay Benthic Index of Biotic Integrity* (CB-B-IBI; Weisberg et al. 1997, Llansó and Dauer 2002) for oligohaline estuaries. These sites have salinities ranging from 2.4–4.5 parts per trillon (ppt), which is within the oligohaline range. Other commonly applied metrics were also calculated (Llansó et al. 2009), including percent tubificid oligochaetes and percent spionid polychaetes, which are used in the EMAP-Virginia Province benthic index (Paul et al. 2001).

Metrics were calculated based on the laboratory identifications and, except for worms of the subfamily Tubificinae, the genera and species of Tubificinae were reassigned to the subfamily level before metric calculation because of taxonomic uncertainty (see section 2). Taxon attributes (**Attachment B**) were taken primarily from the CB-B-IBI application manual (Llansó and Dauer 2002). Tolerance ratings for taxa not addressed by the manual were copied from the United States Geological Survey (USGS) *Traits* database (**http://pubs.usgs.gov/ds/ds187/**), using an average of values when multiple sources were cited. For the Tubificinae, attributes at the subfamily level were derived from the average or mode of values for two related groups: Tubificidae with capiliform chaetae and Tubificidae without capiliform chaetae.

The CB-B-IBI is calculated by scoring six metrics of benthic community structure and function according to established thresholds (see **Table 2**). The scores (on a 1–5 scale) are then averaged to form the index for each site. Samples with index values of 3.0 or more are considered to have good benthic conditions, indicative of good habitat quality. Metrics in the index were calculated according to Llansó and Dauer (2002), which calls for eliminating certain taxa from the calculations (**Attachment B**).

Table 2—
Metrics and scoring thresholds for calculating the CB-B-IBI in oligohaline sites (Llansó and Dauer 2002)

Metric	Metric code	5	3	1
1. Abundance [number per square meter (#/m^2)]	Density.m^2	≥450–3350	180–450 or ≥3350–4050	<180 or ≥4050
2. Abundance of oligohaline pollution-indicative taxa (%)	OPIpct	≤27	27–95	>95
3. Abundance of oligohaline pollution-sensitive taxa (%)	OPSpct	≥26	0.2–26	<0.2
4. Abundance of carnivores and omnivores (%)	pctCO	≥35	15–35	<15
5. HBI value*	HBI	≤6	6–9.05	>9.05
6. Tanypodini to Chironomidae abundance (%)	pctTnypni_Chir	≤17	17–64	>64

** Equivalent to Tolerance Score of Llansó and Dauer (2002)*

RESULTS

Metrics vary by site and some show better conditions in the two reference sites, the one initial reference site, and the three Dark Head Cove sites with lower amounts of detritus (see **Figure 1** and **Table 3**). Of the six metrics in the CB-B-IBI, one results in scores that do not vary among

sites (**Figure 2**). The metric "Abundance of oligohaline pollution-sensitive taxa" was scored 1 point for each sample because sites had no or low numbers of pollution-sensitive taxa. The metric "Abundance of oligohaline pollution-indicative taxa" results in scores of 3 points for all but one site DHC-1, which scored 1 point for having 99% pollution-indicative individuals. The numbers of individuals and densities are highest in test sites, especially those with greater amounts of detritus. Densities in the reference sites are moderate, resulting in scores of 5 points. Very high and very low densities were given lower scores. Test site scores range from 1–5.

The HBI is a tolerance metric where higher values indicate a greater abundance of pollution-tolerant individuals in a sample (and thus degraded conditions); conversely, lower values indicate a greater abundance of pollution-sensitive individuals (and thus less-degraded conditions). It is calculated as the average of tolerance values for all individuals in a sample. The calculated HBI values are then converted to scores on the 1, 3, 5 scale (Llansó and Dauer 2002), where higher scores indicate more pollution-sensitive individuals and better conditions. The converted HBI score is lowest in the two reference sites, indicating that pollution tolerant organisms are less abundant at these sites. Several test sites had HBI values >9 (and consequently low scores of 1), indicating that most of the organisms in those samples are pollution-tolerant, and that conditions are unfavorable for survival and reproduction of pollution-sensitive individuals.

HBI values and pollution indicative ratings are not always in agreement within the Llansó and Dauer (2002) taxa list. This results in a situation where the HBI value is low in both reference sites, yet the percent pollution indicators are relatively high in all sites (all >80%). Pollution indicator traits were derived independently from the tolerance values and may be differently sensitive to toxicants. One oligohaline pollution-sensitive taxon was identified (*Marenzellaria viridis* [Annelida: Polychaeta]) at DHC-2. Even when adding two other taxa considered sensitive in mesohaline habitats (*Rangia cuneata* and *Cyathura polita*; found in MP-1, DHC-2, and DHC-3), the percentages are never high enough to yield metric scores greater than 1 point in any individual sample. Values for the metric "Percent Tanypodini of Chironomidae" are variable and create opposite expectations, being higher in reference sites than in some test sites. Percent carnivore/omnivore values are high in one reference site and low in another, but are relatively low in all test sites, scoring 1 or 3 points.

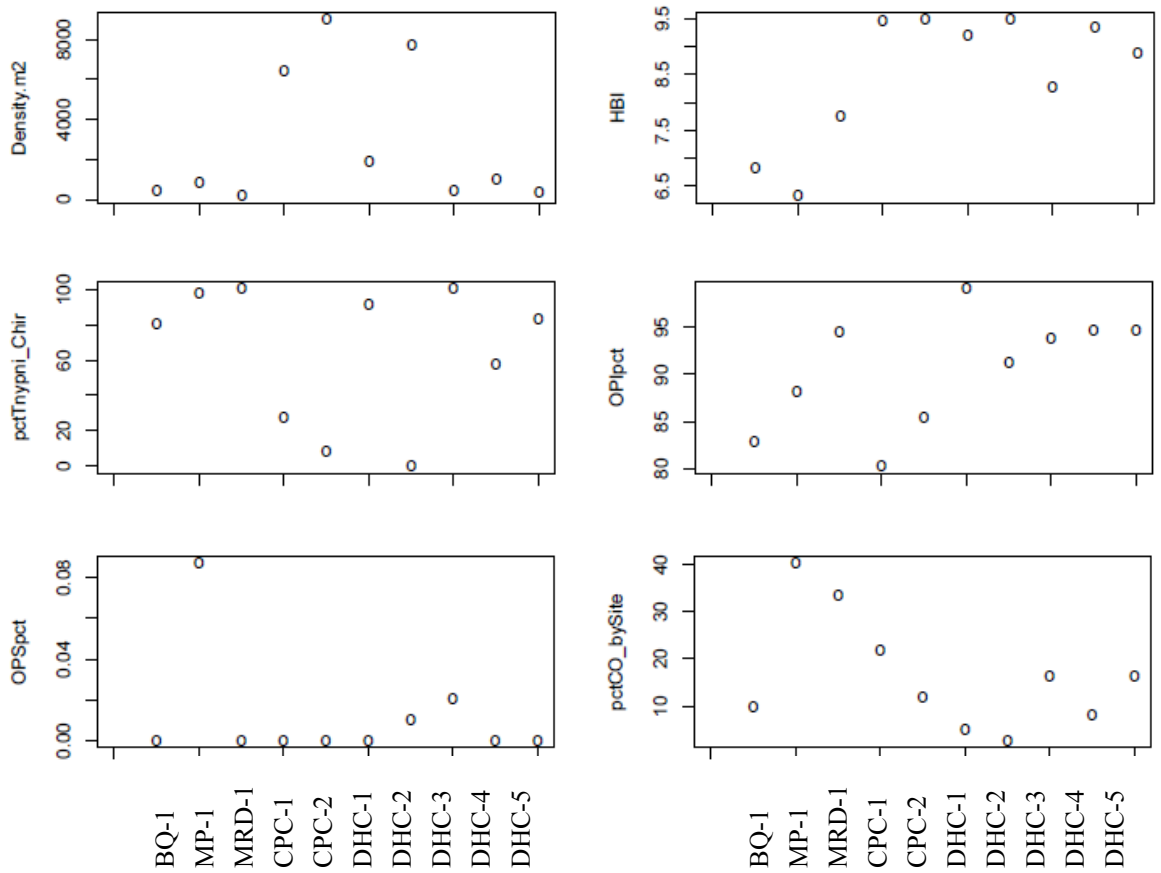

Figure 1—Calculated metric values of the Chesapeake Bay B-IBI. Metric codes (*y*-axis) are as in Table 2.

When the CB-B-IBI scores were calculated from the six metrics, only one reference site (Marshy Point) had a score of 3.0, indicating good benthic conditions (**Figure 3**). The other reference site (Bowleys Quarters [BN-BQ-1]) had a B-IBI score of 2.33. All test sites had scores in the range of 1.67–2.33. The lowest value is in site DHC-1 and the highest scores of the test sites are in sites DHC-3, -4, and -5.

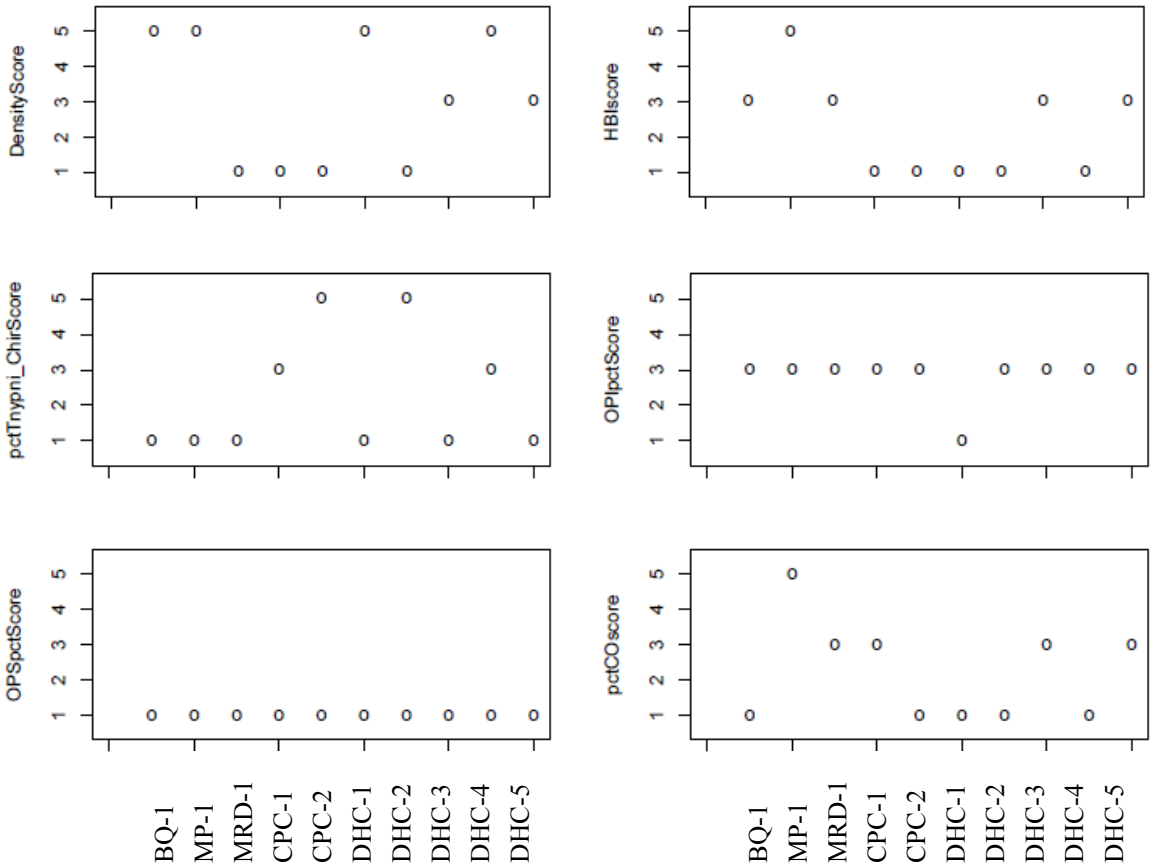

Figure 2—Metric scores for the six metrics in the CB-B-IBI. Metric codes (*y*-axis) are as in Table 2.

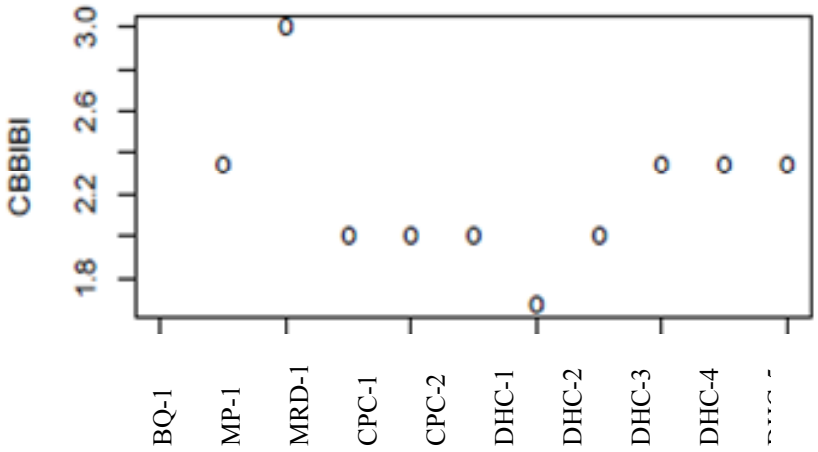

Figure 3—Chesapeake Bay B-IBI (CB-B-IBI) scores. Values ≥3.0 and greater are considered to have good benthic conditions.

Tubificid oligochaetes are absent or sparse in reference sites as compared to test sites (**Figure 4A**). Spionid polychaetes are sparse in one reference site and moderately prominent in the other (**Figure 4B**). When these two metrics are considered in combination, tubificids and

spionids appear to comprise less than 50% of all references sites and more than 65% of all test sites. Metrics related to feeding mechanisms do not show discernable patterns among sites.

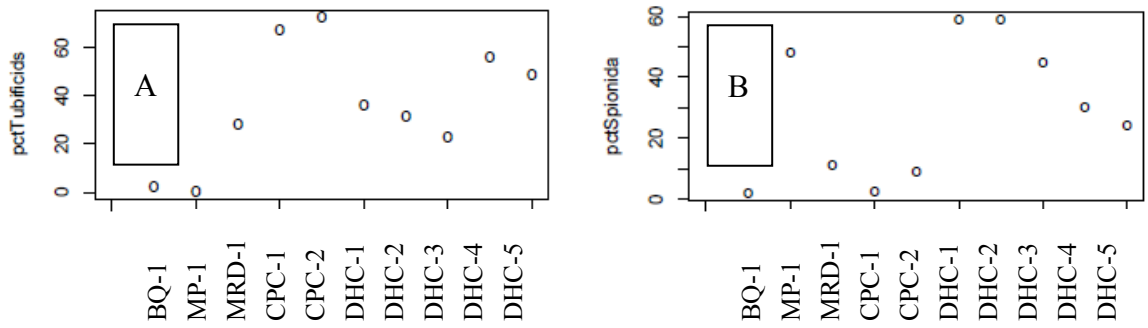

Figure 4—Percent tubificid oligochaetes (A) and percent spionid polychaetes (B)

DISCUSSION

One local reference site (Marshy Point) has good benthic conditions according to the CB-B-IBI. The other local reference site (Bowleys Quarters) and the proposed reference site (Middle River Downstream) have values below the 3.0 threshold, indicating some type of stressful conditions for the benthic macroinvertebrates even in these relatively unexposed locations. The 3.0 threshold is based on a wider distribution of reference sites throughout the Chesapeake Bay and probably includes mostly sites with less local disturbance and input than the local reference sites selected for this study. Therefore, it is assumed that some background disturbances or inputs negatively affect benthic organisms in the general study area. The average CB-B-IBI score for the two reference sites is 2.7.

All of the test sites have CB-B-IBI scores below the 3.0 threshold, indicating some stress to the benthic organisms. Both Cow Pen Creek sites had CB-B-IBI scores of 2.0, which is lower than either of the local reference-site scores. In Darkhead Cove, sites DHC-1 and DHC-2 appear to have worse biological conditions than the other three. However, all scores are below the 3.0 CB-B-IBI threshold, and the sites are very close to each other. The average of the CB-B-IBI scores in the five sites in Darkhead Cove is 2.1, indicating that the biological community is somehow stressed. Statistical comparisons among reference and test sites do not show significant differences in IBI values (*t*-test, $p>0.05$), though the sample sizes are so small that statistical results lack power (two reference sites, two to five test sites).

The CB-B-IBI (Weisberg et al. 1997) is the most appropriate overall benthic index we could apply in these analyses. It was calibrated for the entire Chesapeake Bay, we used the metric suite

and scoring criteria specific to oligohaline conditions, and we could calculate the index from the collected data. Although other metrics show some patterns among sites, we do not have as strong a basis for interpretation as we do for the overall, composite index, the CB-B-IBI. We interpret the percentage of tubificids and spionids to confirm results of the IBI (based on general knowledge of benthic organisms) and to suggest that the local reference sites have somewhat better benthic conditions than the test sites.

The reference sites have low percentages of pollution-tolerant tubificid oligochaetes and spionid polychaetes relative to the test sites (**Figure 4**). These organisms can persist and thrive in locations too stressful for sensitive organisms. They can also do well in locations with abundant detritus because they collect small food particles from the carbon-rich environment.

Tubificids are commonly among the taxa known to indicate pollution in oligohaline estuarine environments (Pelletier et al. 2010). They are generally tolerant of a wide range of pollutant types, including low dissolved-oxygen, heavy metals, physical habitat conditions, and low-level toxicants. Spionid polychaetes are known to tolerate relatively low dissolved oxygen even in the presence of hydrogen sulfide (Llansó 1991). Tubificids and spionids are prey resources for predators such as crabs and benthic-feeding fish. Although one reference site had a relatively high percentage of spionids (48% in Marshy Point), the combination of tubificids and spionids in reference sites was always lower than that combination in test sites. This pattern is in agreement with the HBI tolerance metric and suggests that some competitive advantage exists for one or the other tolerant organism when site stresses came into effect.

In a study of sediment toxicity throughout the Chesapeake Bay, higher benthic-macroinvertebrate densities were negatively correlated with contaminant concentrations (Hartwell and Hameedi 2007). However, among the Middle River sites in this study, densities of individuals are moderate in reference sites (where stressors are relatively low) and highest in some test sites (**Figure 1)**. This suggests that the effects of contaminant concentrations on densities of individuals are weak or absent among the Middle River study sites. Habitat or nutrient conditions may outweigh any potential contaminant effects and allow higher benthic productivity in sites where higher levels of detritus were observed (especially Cow Pen Creek and DHC-2). Despite these observations, contaminant effects should not be discounted because the higher productivity was achieved by pollution-tolerant taxa.

Table 3—Metric values and scores, by site. Metrics numbered and highlighted by boxes are used in the CB-B-IBI (Llansó and Dauer 2002). The overall CB-B-IBI score is the mean of the six metrics.

Site ID	BN-BQ-1	BN-MP-1	BN-MRD-1	BN-CPC-1	BN-CPC-2	BN-DHC-1	BN-DHC-2	BN-DHC-3	BN-DHC-4	BN-DHC-5
Reference status	Ref	Ref	Init. Ref	Test	Test	Test	Test	Test	Test	Test
Site number	1	2	3	4	5	6	7	8	9	10
TotTax_bySite	8	9	5	16	25	6	19	7	8	6
TotIndiv_bySite	52	92	18	738	1041	218	893	49	113	37
1. Density.m2	450.1	796.4	155.8	6388.1	9010.9	1887.0	7729.8	424.1	978.1	320.3
Score	5	5	1	1	1	5	1	3	5	3
TaxaPer100Indiv	15.4	9.8	27.8	2.2	2.4	2.8	2.1	14.3	7.1	16.2
TotFams_bySite	6	8	5	11	15	6	14	8	7	5
TotFamsPer100Indiv	11.5	8.7	27.8	1.5	1.4	2.8	1.6	16.3	6.2	13.5
Orders_bySite	6	7	5	9	10	6	10	6	5	5
TotOrdersPer100Indiv	11.5	7.6	27.8	1.2	1.0	2.8	1.1	12.2	4.4	13.5
pctDom	69.2	34.8	33.3	67.3	72.6	58.7	58.0	44.9	55.8	48.7
2. HBI	6.82	6.32	7.75	9.45	9.47	9.2	9.49	8.26	9.35	8.87
Score	3	3	3	1	1	1	1	3	1	3
pctInsecta	9.6	42.4	33.3	22.6	12.5	5.5	3.0	16.3	8.0	16.2
HerbTax	0	0	0	1	2	0	1	0	0	0
pctHerb_bySite	0	0	0	0.14	0.58	0	0.34	0	0	0
FiltTax_bySite	1	2	0	1	1	2	4	1	0	0
pctFilt_bySite	3.9	40.2	0	0.1	0.1	0.9	1.2	2.0	0	0
PredTax_bySite	3	4	2	7	9	2	5	3	4	3
PredPctTax	37.5	44.4	40.0	43.8	36.0	33.3	26.3	42.9	50.0	50.0
pctPred_bySite	21.2	42.4	38.9	20.3	10.6	4.6	1.8	18.4	8.0	18.9
CollTax_bySite	4	3	3	6	10	2	8	3	4	3
CollPctTax	50.0	33.3	60.0	37.5	40.0	33.3	42.1	42.9	50.0	50.0

Table 3—Metric values and scores, by site. Metrics numbered and highlighted by boxes are used in the CB-B-IBI (Llansó and Dauer 2002). The overall CB-B-IBI score is the mean of the six metrics. (continued)

Site ID	BN-BQ-1	BN-MP-1	BN-MRD-1	BN-CPC-1	BN-CPC-2	BN-DHC-1	BN-DHC-2	BN-DHC-3	BN-DHC-4	BN-DHC-5
Reference status	Ref	Ref	Init. Ref	Test	Test	Test	Test	Test	Test	Test
Site number	1	2	3	4	5	6	7	8	9	10
pctColl_bySite	75.0	17.4	61.1	78.1	87.6	94.5	96.4	79.6	92.0	81.1
pctTubificids	1.9	0	27.8	67.3	72.6	35.8	31.2	22.5	55.8	48.7
pctSpionida	1.9	47.8	11.1	2.2	8.7	58.7	59.1	44.9	30.1	24.3
3. OPIpct	82.7	88.0	94.4	80.2	85.3	99.1	91.3	93.9	94.7	94.6
Score	3	3	3	3	3	1	3	3	3	3
Shan_base_2	1.68	2.41	2.11	1.95	1.71	1.29	1.71	2.12	1.71	1.97
4. pctCO_bySite	9.6	40.2	33.3	21.8	11.7	5.1	2.7	16.3	8.0	16.2
Score	1	5	3	3	1	1	1	3	1	3
5. OPSpct	0.000	0.087	0.000	0.000	0.000	0.000	0.010	0.020	0.000	0.000
Score	1	1	1	1	1	1	1	1	1	1
6. pctTnypni_Chir	80.0	97.3	100.0	27.0	8.0	90.9	0.0	100.0	57.1	83.3
Score	1	1	1	3	5	1	5	1	3	1
CB-B-IBI (avg.)	2.3	3.0	2.0	2.0	2.0	1.7	2.0	2.3	2.3	2.3

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Section 2

Quality Control of Benthic-Macroinvertebrate Taxonomic Data

After the primary taxonomic laboratory identified the taxa in all 50 samples, five samples were randomly selected (10%) and sent to independent quality control (QC) laboratories for re-identification (**Table 4**). The duplicate results were directly compared to quantify rates of differences in sample counts (percent difference in enumeration [PDE]), percent taxonomic disagreement [PTD]), and consistency of effort (percent taxonomic completeness [PTC]). Note that neither primary nor QC taxonomists were given detailed standard operating procedures (SOP), but were instructed in writing to complete identifications to the genus level if specimen condition would allow. Excessively damaged or immature specimens could be left at coarser hierarchical levels of identification, such as subfamily, family, or higher, if necessary.

Table 4—Summary of taxonomic comparison results, by individual sample. Primary and QC taxonomists are T1 and T2, respectively. See Stribling et al. (2008) for a description of the QC procedure. Detailed results are in Attachment C.

	No. individuals					Taxonomic completeness (%)		
Sample ID	T1	T2	Matches	PDE	PTD	T1	T2	PTC_absdiff*
BN-CPC-1-3	104	99	18	2.5	82.7	100	35.4	64.6
BN-CPC-2-1	355	348	60	1	83.1	100	60.6	39.4
BN-CPC-2-3	187	210	110	5.8	47.6	100	67.1	32.9
BN-DHC-1-3	65	55	40	8.3	38.5	100	72.7	27.3
BN-DHC-1-5	55	39	24	17	56.4	100	59.0	41.0

**PTC_absdiff* is the absolute difference between the % taxonomic completeness attained by each of the taxonomists; low numbers indicate greater equivalency in level of effort

The mean PTD is 61.7%, substantially higher than the standard programmatic measurement-quality objective (MQO) for freshwater systems, 15% (Stribling et al. 2008). Overall, the comparisons are primarily affected by the hyper-abundance of tubificid worms (Oligochaeta: Naididae: Tubificinae) and associated straight taxonomic disagreements and hierarchical differences. The sample with the highest PTD of 83.1% is primarily due to its being dominated

by tubificids (83% of the full sample) and the differences/disagreements. Corrective actions (CA) are required because the error rate is so high. Specifically, the CA is to combine all tubificine identifications to the subfamily level for analysis. By doing so, mean PTD drops 44 percentage points from 61.7% to 17.5%. Note too that apparent errors are very low for mussels (Mollusca: Bivalvia), crustaceans, midges (Diptera: Chironomidae), and caddisflies (Trichoptera). With this corrective action, the rate of error in this data set should be considered acceptable for additional analyses.

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ATTACHMENT A

TAXONOMIC DATA QUALITY CONTROL REPORT

Taxonomic Data Quality Control Report

Analysis completed (date)	December 07, 2010
Report completed (date)	December 09, 2010
Tetra Tech project number	112IC02903
Project name	Middle River Biological Assessment
Client	Tetra Tech, Inc., Stone Mountain, Georgia
Client contact	Eric Samuels (770-413-0965 [x232])
Primary taxonomist(s)	George Christian (T1, Normandeau Associates)
QC taxonomist(s)	Tim Morris (T2 [brackish water taxa], Cove Corporation); Lisa Scott (T2 [freshwater taxa and all oligochaetes], Versar)
QC analyst	J. Stribling

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TAXON BY TAXON COMPARISONS (within samples) . . . . . .page 4
CORRECTIVE ACTIONS . . . . . .page 6

Prepared by: Tetra Tech, Inc., Center for Ecological Sciences, 400 Red Brook Blvd., Suite 200, Owings Mills, Maryland 21117-5159 (with questions, contact James Stribling [410-356-8993], or james.stribling@tetratech.com)

TETRA TECH

Taxonomic Data Quality Control Report

Analysis completed (date)	December 07, 2010
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Tetra Tech project number	112IC02903
Project name	Middle River Biological Assessment
Client	Tetra Tech, Inc., Stone Mountain, Georgia
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Primary taxonomist(s)	George Christian (T1, Normandeau Associates)
QC taxonomist(s)	Tim Morris (T2 [brackish water taxa], Cove Corporation); Lisa Scott (T2 [freshwater taxa and all oligochaetes], Versar)
QC analyst	J. Stribling

Test conditions and narrative summary – There were 5 benthic macroinvertebrate samples of variable counts, randomly selected as 10% of the sample lot, for a biological assessment of the Middle River (n=50 samples). Samples were taken by petite ponar dredge from a brackish water zone near the mouth of the river at the Chesapeake Bay, Maryland. These taxonomic comparison (taxcomp) results represent a direct comparison of identification results by independent taxonomists in separate laboratories. The mean percent taxonomic disagreement (PTD) is 61.7%, substantially higher than standard programmatic measurement quality objective (MQO) for freshwater systems, 15%. Overall, the comparisons were primarily affected by the hyper-abundance of tubificid worms (Oligochaeta: Naididae: Tubificinae), and associated straight taxonomic disagreements and hierarchical differences. Sample PTD ranged from 38.5-83.1%; the sample with the highest PTD of 83.1%, was primarily due to its being dominated by these worms (83% of the full sample) and the previously-mentioned differences. Corrective actions are required, and, specifically, are combining all tubificine identifications to the subfamily level for analysis. With these corrective actions, the rates of error in this dataset should be considered acceptable for additional analyses. *Additional notes* – By combining all tubificines for the T2 data, including *Limnodrilus*, *Tubificoides*, and specimens identified as Tubificinae, the mean error rate (PTD) drops 44 percentage points from 61.7% to 17.5%. Also, errors were very low for mussels (Mollusca: Bivalvia), crustaceans, midges (Diptera: Chironomidae), and caddisflies (Trichoptera).

Standard operating procedures (SOP) for identifications documented and provided to all primary and QC taxonomists? No. All taxonomists were requested in writing to do whatever was necessary to attain genus level identifications, if the condition of the specimens would allow.

Additional comments: None.

TETRA TECH

SUMMARY STATISTICS (by sample lot)

Number of samples in lot	50
Number of samples for taxonomic comparison	5
Percent of sample lot	10%
Percent taxonomic disagreement (PTD)	
Average	61.7
Standard deviation	20.4
Measurement quality objective	none designated
Percent difference in enumeration (PDE)	
Average	6.9
Standard deviation	6.3
Measurement quality objective	none designated
Percent taxonomic completeness (PTC, absolute difference)	
Average	41.0
Standard deviation	14.3
Measurement quality objective	none designated

Hierarchical target levels

Genus level across all taxa

The following table provides definitions for abbreviations and columns headers in tables found in subsequent pages:

Abbreviations/column headers	
A - no_ind_T1	number of individuals counted by primary taxonomist
B - no_ind_T2	number of individuals counted by QC taxonomist
C - Matches	number of agreements between the two taxonomists
D - PDE	percent difference in enumeration
E - PTD	percent taxonomic disagreement
F - Target_T1	number of individuals identified to target level, primary taxonomist
G - Target_T2	number of individuals identified to target level, QC taxonomist
H - PTC_T1	percent taxonomic completeness, primary taxonomist
I - PTC_T2	percent taxonomic completeness, QC taxonomist
J - PTC (abs diff)	percent taxonomic completeness (absolute difference)
K - Diff_strt	number of straight disagreements
L - Diff_hier	number of hierarchical differences
M - Diff_miss	number of apparently missing specimens

TETRA TECH

SUMMARY STATISTICS (by individual samples)

Sample ID	A	B	C	D	E	F	G	H	I	J
BN-CPC-1-3	104	99	18	2.5	82.7	104	35	100	35.4	64.6
BN-CPC-2-1	355	348	60	1	83.1	355	211	100	60.6	39.4
BN-CPC-2-3	187	210	110	5.8	47.6	187	141	100	67.1	32.9
BN-DHC-1-3	65	55	40	8.3	38.5	65	40	100	72.7	27.3
BN-DHC-1-5	55	39	24	17	56.4	55	23	100	59	41

TAXON BY TAXON COMPARISONS (within samples)

Sample ID	Taxon	A	B	C	K	L	M
BN-CPC-1-3	Dero	0	1	0			
BN-CPC-1-3	Limnodrilus	91	9	9			
BN-CPC-1-3	Tubificinae	0	62	0		62	
BN-CPC-1-3	Tubificoides	0	14	0	14		
BN-CPC-1-3	Neanthes	2	0	0		1	
BN-CPC-1-3	Laeonereis	0	1	0			1
BN-CPC-1-3	Streblospio	2	2	2			
BN-CPC-1-3	Ceratopogon	0	1	0	1		
BN-CPC-1-3	Mallochohelea	2	1	1			
BN-CPC-1-3	Chironomidae	0	1	0			1
BN-CPC-1-3	Coelotanypus	4	3	3	1		
BN-CPC-1-3	Tanypus	3	4	3	1		
BN-CPC-2-1	Mytilopsis	3	3	3			
BN-CPC-2-1	Dero	7	5	5			
BN-CPC-2-1	Stephensoniana	0	2	0			
BN-CPC-2-1	Limnodrilus	293	13	13			16
BN-CPC-2-1	Tubificidae	0	1	0		1	
BN-CPC-2-1	Tubificinae	0	129	0		129	
BN-CPC-2-1	Tubificoides	0	134	0	134		
BN-CPC-2-1	Neanthes	7	0	0	7		
BN-CPC-2-1	Laeonereis	0	7	0			
BN-CPC-2-1	Amphicteis	3	5	3			2
BN-CPC-2-1	Streblospio	28	35	28			7
BN-CPC-2-1	Ceratopogoninae	0	5	0		5	

Sample ID	Taxon	A	B	C	K	L	M
BN-CPC-2-1	Mallochohelea	10	5	5			
BN-CPC-2-1	Polypedilum	1	1	1			
BN-CPC-2-1	Rheotanytarsus	1	2	1	1		
BN-CPC-2-1	Tanypus	2	1	1			
BN-CPC-2-3	Mytilopsis	39	37	37			2
BN-CPC-2-3	Dero	0	2	0	2		
BN-CPC-2-3	Limnodrilus	68	2	2			
BN-CPC-2-3	Tubificinae	0	62	0		62	
BN-CPC-2-3	Tubificoides	0	23	0	23		
BN-CPC-2-3	Neanthes	4	0	0		4	1
BN-CPC-2-3	Laeonereis	0	5	0			
BN-CPC-2-3	Streblospio	7	9	7			2
BN-CPC-2-3	Gammarus	12	12	12			
BN-CPC-2-3	Ceratopogoninae	0	2	0		2	
BN-CPC-2-3	Mallochohelea	7	5	5			
BN-CPC-2-3	Chironomidae	0	1	0		1	
BN-CPC-2-3	Dicrotendipes	0	1	0	1		
BN-CPC-2-3	Nanocladius	1	1	1			
BN-CPC-2-3	Parachironomus	45	43	43			
BN-CPC-2-3	Polypedilum	0	1	0			
BN-CPC-2-3	Coenagrionidae	0	1	0		1	
BN-CPC-2-3	Enallagma	1	0	0			
BN-CPC-2-3	Orthotrichia	3	3	3			
BN-DHC-1-3	Mytilopsis	1	0	0			
BN-DHC-1-3	Limnodrilus	13	0	0			
BN-DHC-1-3	Tubificinae	0	15	0		13	2
BN-DHC-1-3	Streblospio	49	38	38			11
BN-DHC-1-3	Coelotanypus	1	1	1			
BN-DHC-1-3	Tanypus	1	1	1			
BN-DHC-1-5	Limnodrilus	13	0	0			
BN-DHC-1-5	Tubificinae	0	12	0		12	1
BN-DHC-1-5	Amphicteis	0	1	0			1
BN-DHC-1-5	Streblospio	37	21	21			
BN-DHC-1-5	Chironomini	0	1	0		1	
BN-DHC-1-5	Coelotanypus	3	3	3			

Sample ID	Taxon	A	B	C	K	L	M
BN-DHC-1-5	Microtendipes	1	0	0			
BN-DHC-1-5	Cheumatopsyche	1	0	0		1	
BN-DHC-1-5	Hydropsychidae	0	1	0			

Corrective actions

1. For this dataset, prior to any metric or index calculations or site assessments, combine all tubificine worms at the subfamily level.
2. Future analyses should provide more explicit written standard operating procedures (SOP) to primary and QC laboratories and taxonomists.

ATTACHMENT B

LABORATORY TAXONOMIC IDENTIFICATION RESULTS FOR BENTHIC MACROINVERTEBRATES

Attachment B. Laboratory taxonomic identification results for benthic macroinvertebrates samples taken using Petite Ponar dredges, from tidally-influence brackish water at the mouth of the Middle River (Maryland) at the Chesapeake Bay. Sample data shown are composites of 5 ponar grabs at each site location.

Site	Class	Order	Family	Lab_ID	No. indiv.
BN-BQ-1	Anopla	Heteronemertea	Lineidae	*Cerebratulus*	3
	Bivalvia	Veneroida	Mactridae	*Mulinia lateralis*	2
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	36
	Insecta	Diptera	Chironomidae	*Chironomus*	1
	Insecta	Diptera	Chironomidae	*Coelotanypus*	4
	Nematoda			*Nematoda*	4
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	1
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	1
	TOTAL				*52*
BN-CPC-1	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	1
	Crustacea	Amphipoda	Gammaridae	*Gammarus fasciatus*	7
	Insecta	Diptera	Ceratopogonidae	*Mallochohelea*	24
	Insecta	Diptera	Chironomidae	*Chironomus*	4
	Insecta	Diptera	Chironomidae	*Clinotanypus*	14
	Insecta	Diptera	Chironomidae	*Coelotanypus*	5
	Insecta	Diptera	Chironomidae	*Parachironomus*	70
	Insecta	Diptera	Chironomidae	*Polypedilum*	10
	Insecta	Diptera	Chironomidae	*Procladius*	6
	Insecta	Diptera	Chironomidae	*Rheotanytarsus*	1
	Insecta	Diptera	Chironomidae	*Tanypus*	26
	Insecta	Diptera	Chironomidae	*Tanytarsus*	1
	Insecta	Odonata	Coenagrionidae	*Enallagma*	5
	Insecta	Trichoptera	Hydroptilidae	*Orthotrichia*	1
	Oligochaeta	Tubificida	Naididae	*Dero obtusa*	30
	Oligochaeta	Tubificida	Tubificinae*	*Aulodrilus pigueti*	2
	Oligochaeta	Tubificida	Tubificinae*	*Ilyodrilus templetoni*	2
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	482
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus hoffmeisteri*	11
	Polychaeta	Phyllodocida	Nereidae	*Neanthes succinea*	28
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	16
	TOTAL				*746*
BN-CPC-2	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	66
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	1
	Crustacea	Amphipoda	Gammaridae	*Gammarus fasciatus*	22
	Insecta	Diptera	Ceratopogonidae	*Mallochohelea*	33
	Insecta	Diptera	Ceratopogonidae	*Sphaeromias*	1
	Insecta	Diptera	Chironomidae	*Clinotanypus*	1
	Insecta	Diptera	Chironomidae	*Coelotanypus*	4

Site	Class	Order	Family	Lab_ID	No. indiv.
BN-CPC-2	Insecta	Diptera	Chironomidae	*Cricotopus*	1
	Insecta	Diptera	Chironomidae	*Dicrotendipes*	2
	Insecta	Diptera	Chironomidae	*Nanocladius*	1
	Insecta	Diptera	Chironomidae	*Parachironomus*	64
	Insecta	Diptera	Chironomidae	*Polypedilum*	4
	Insecta	Diptera	Chironomidae	*Polypedilum scalaenum* gr.	7
	Insecta	Diptera	Chironomidae	*Procladius*	1
	Insecta	Diptera	Chironomidae	*Rheotanytarsus*	1
	Insecta	Diptera	Chironomidae	*Tanypus*	2
	Insecta	Odonata	Coenagrionidae	*Enallagma*	2
	Insecta	Trichoptera	Hydroptilidae	*Hydroptila*	1
	Insecta	Trichoptera	Hydroptilidae	*Orthotrichia*	5
	Nematoda			*Nematoda*	2
	Oligochaeta	Tubificida	Enchytraeidae	*Enchytraeidae*	12
	Oligochaeta	Tubificida	Naididae	*Dero*	14
	Oligochaeta	Tubificida	Naididae	*Dero obtusa*	7
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	746
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus hoffmeisteri*	9
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus udekemianus*	1
	Polychaeta	Phyllodocida	Nereidae	*Neanthes succinea*	23
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	90
	Polychaeta	Terebellida	Ampharetidae	*Hypaniola florida*	6
	TOTAL				*1129*
BN-DHC-1	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	1
	Gastropoda	Mesogastropoda	Hydrobiidae	*Hydrobia*	2
	Insecta	Diptera	Chironomidae	*Coelotanypus*	8
	Insecta	Diptera	Chironomidae	*Microtendipes pedellus* gr.	1
	Insecta	Diptera	Chironomidae	*Tanypus*	2
	Insecta	Trichoptera	Hydropsychidae	*Cheumatopsyche*	1
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	78
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	128
	TOTAL				*221*
BN-DHC-2	Anopla	Heteronemertea	Lineidae	*Cerebratulus*	6
	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	63
	Bivalvia	Veneroida	Mactridae	*Mulinea lateralis*	1
	Bivalvia	Veneroida	Mactridae	*Rangia cuneata*	3
	Crustacea	Amphipoda	Corophiidae	*Corophium*	1
	Crustacea	Amphipoda	Gammaridae	*Gammarus fasciatus*	13
	Insecta	Diptera	Ceratopogonidae	*Culicoides*	1
	Insecta	Diptera	Ceratopogonidae	*Mallochohelea*	4
	Insecta	Diptera	Chironomidae	*Chironomus*	11

Site	Class	Order	Family	Lab_ID	No. indiv.
BN-DHC-2	Insecta	Diptera	Chironomidae	*Cricotopus bicinctus* gr.	2
	Insecta	Diptera	Chironomidae	*Parachironomus*	3
	Insecta	Diptera	Chironomidae	*Rheotanytarsus*	3
	Insecta	Trichoptera	Hydroptilidae	*Orthotrichia*	3
	Nematoda			*Nematoda*	2
	Oligochaeta	Tubificida	Naididae	*Dero*	16
	Oligochaeta	Tubificida	Naididae	*Dero obtusa*	21
	Oligochaeta	Tubificida	Tubificinae*	*Ilyodrilus templetoni*	1
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	278
	Polychaeta	Phyllodocida	Nereidae	*Neanthes succinea*	3
	Polychaeta	Spionida	Spionidae	*Marenzellaria viridis*	6
	Polychaeta	Spionida	Spionidae	*Polydora cornuta*	4
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	518
	Polychaeta	Terebellida	Ampharetidae	*Hypaniola florida*	7
	TOTAL				*970*
BN-DHC-3	Anopla	Heteronemertea	Lineidae	*Cerebratulus*	1
	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	5
	Bivalvia	Veneroida	Mactridae	*Rangia cuneata*	1
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	6
	Insecta	Diptera	Ceratopogonidae	*Culicoides*	1
	Insecta	Diptera	Chironomidae	*Coelotanypus*	7
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	11
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	22
	TOTAL				*54*
BN-DHC-4	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	2
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	6
	Insecta	Diptera	Ceratopogonidae	*Culicoides*	2
	Insecta	Diptera	Chironomidae	*Clinotanypus*	1
	Insecta	Diptera	Chironomidae	*Coelotanypus*	4
	Insecta	Diptera	Chironomidae	*Parachironomus*	2
	Oligochaeta	Tubificida	Naididae	*Dero*	1
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	63
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	34
	TOTAL				*115*
BN-DHC-5	Anopla	Heteronemertea	Lineidae	*Cerebratulus*	1
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	3
	Insecta	Diptera	Chironomidae	*Clinotanypus*	1
	Insecta	Diptera	Chironomidae	*Coelotanypus*	5
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	18
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	9
	TOTAL				*37*

Site	Class	Order	Family	Lab_ID	No. indiv.
BN-MP-1	Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*	5
	Bivalvia	Veneroida	Mactridae	*Rangia cuneata*	5
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	1
	Crustacea	Isopoda	Anthuridae	*Cyathura Polita*	3
	Gastropoda	Mesogastropoda	Hydrobiidae	*Hydrobia*	3
	Insecta	Diptera	Chironomidae	*Coelotanypus*	27
	Insecta	Diptera	Chironomidae	*Coelotanypus scapularis*	9
	Insecta	Diptera	Chironomidae	*Parachironomus*	1
	Insecta	Odonata	Coenagrionidae	*Enallagma*	2
	Polychaeta	Spionida	Spionidae	*Polydora cornuta*	32
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	12
	TOTAL				*100*
BN-MRD-1	Anopla	Heteronemertea	Lineidae	*Cerebratulus*	1
	Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*	4
	Insecta	Diptera	Chironomidae	*Coelotanypus*	6
	Oligochaeta	Tubificida	Tubificinae*	*Limnodrilus*	5
	Polychaeta	Spionida	Spionidae	*Streblospio benedicti*	2
	TOTAL				*18*

* Tubificinae was used as the final ID for metric calculations.

ATTACHMENT C

MASTER LIST OF TAXA

Attachment C. Master list of taxa found in these Middle River samples and associate attributes needed for metric and index calculations.

Class	Order	Family	Final ID	Tolerance		Omit?[2]	CarnOmni[3]	Poll. Ind.[4]
				TV	Source[1]			
Anopla	Heteronemertea	Lineidae	*Cerebratulus*			no		
Anopla	Paleonemertea	Carinomidae	*Carinoma tremaphoros*			no		
Bivalvia	Veneroida	Dreissenidae	*Mytilopsis leucophaeata*			yes		
Bivalvia	Veneroida	Mactridae	*Mulinea lateralis*			no		MPI
Bivalvia	Veneroida	Mactridae	*Rangia cuneata*			no		MPS
Crustacea	Amphipoda	Aoridae	*Leptocheirus plumulosus*			no		OPI
Crustacea	Amphipoda	Corophiidae	*Corophium*			yes		
Crustacea	Amphipoda	Gammaridae	*Gammarus fasciatus*			yes		
Crustacea	Isopoda	Anthuridae	*Cyathura polita*	5	B	no	X	MPS
Gastropoda	Mesogastropoda	Hydrobiidae	*Hydrobia*			yes		
Gastropoda	Mesogastropoda	Hydrobiidae	*Spurwinkia salsa*			yes		
Insecta	Diptera	Ceratopogonidae	*Culicoides*	7.9	B	no	X	
Insecta	Diptera	Ceratopogonidae	*Mallochohelea*			no	X	
Insecta	Diptera	Ceratopogonidae	*Sphaeromias*			no	X	
Insecta	Diptera	Chironomidae	*Chironomus*	9.8	A	no	X	OPI
Insecta	Diptera	Chironomidae	*Cricotopus*	6	B	no	X	
Insecta	Diptera	Chironomidae	*C. bicinctus* gr.	6	B	no	X	
Insecta	Diptera	Chironomidae	*Dicrotendipes*	7.9	A	no	X	
Insecta	Diptera	Chironomidae	*Microtendipes pedellus* gr.	5.25	B	no	X	
Insecta	Diptera	Chironomidae	*Nanocladius*	7.2	A	no	X	
Insecta	Diptera	Chironomidae	*Parachironomus*	9.2	A	no	X	
Insecta	Diptera	Chironomidae	*Polypedilum*	6.7	A	no	X	OPI
Insecta	Diptera	Chironomidae	*P. scalaenum* gr.	6.7	A	no	X	OPI
Insecta	Diptera	Chironomidae	*Rheotanytarsus*	6.4	A	no	X	
Insecta	Diptera	Chironomidae	*Tanytarsus*	6.7	A	no	X	
Insecta	Diptera	Chironomidae	*Clinotanypus*	9.1	A	no	X	
Insecta	Diptera	Chironomidae	*Coelotanypus*	6.2	A	no	X	OPI
Insecta	Diptera	Chironomidae	*C. scapularis*	6.2	A	no	X	OPI
Insecta	Diptera	Chironomidae	*Procladius*	9.3	A	no	X	OPI
Insecta	Diptera	Chironomidae	*Tanypus*	9.6	A	no	X	OPI
Insecta	Odonata	Coenagrionidae	*Enallagma*	8.95	B	no		
Insecta	Trichoptera	Hydropsychidae	*Cheumatopsyche*	5.4	B	no		
Insecta	Trichoptera	Hydroptilidae	*Hydroptila*	6.1	B	no		
Insecta	Trichoptera	Hydroptilidae	*Orthotrichia*	6.15	B	no		
Nematoda	.	.	Nematoda	6	B	no		
Oligochaeta	Tubificida	Enchytraeidae	Enchytraeidae	10	A	no		

Class	Order	Family	Final ID	Tolerance		Omit?[2]	CarnOmni[3]	Poll. Ind.[4]
				TV	Source[1]			
Oligochaeta	Tubificida	Naididae	*Dero obtusa*	9.5	B	no		
Oligochaeta	Tubificida	Naididae	*Dero*	9.5	B	no		
Oligochaeta	Tubificida	Tubificinae	Tubificinae	9.6	C	no		OPI
Oligochaeta	Tubificida	Tubificinae	*Aulodrilus pigueti*	4.7	A	no		OPI
Oligochaeta	Tubificida	Tubificinae	*Ilyodrilus templetoni*	9.4	A	no		OPI
Oligochaeta	Tubificida	Tubificinae	*Limnodrilus*	9.8	D	no		OPI
Oligochaeta	Tubificida	Tubificinae	*L. hoffmeisteri*	9.8	A	no		OPI
Oligochaeta	Tubificida	Tubificinae	*L. udekemianus*	9.7	A	no		OPI
Polychaeta	Phyllodocida	Nereidae	*Neanthes succinea*			no	X	OPI
Polychaeta	Spionida	Spionidae	*Marenzellaria viridis*			no		OPS
Polychaeta	Spionida	Spionidae	*Polydora cornuta*			no		OPI
Polychaeta	Spionida	Spionidae	*Streblospio benedicti*			no		OPI
Polychaeta	Terebellida	Ampharetidae	*Hypaniola florida*			no		

[1]Source: A - Llansó and Dauer 2002, B - USGS traits database, C - Average of Llansó and Dauer TV for T w/ and wo/ cap chaetae, D - Association w/Species; [2] CarnOmni, Carnivore or Omnivore, [3]Omit? From Llansó and Dauer 2002, indicates whether the taxon is used for metric calculations; [4]Abbreviations: Poll. Ind., Pollution Indicative; OPI, Oligohaline Pollution Indicative (Applicable in Middle River sites); OPS, Oligohaline Pollution Sensitive (Applicable in Middle River sites); MPI, Mesohaline Pollution Indicative (Not applicable in Middle River sites); MPS, Mesohaline Pollution Sensitive (Not applicable in Middle River sites)

APPENDIX I—
EVALUATION OF GEOTEXTILE FABRIC CONTAINERS TO DEWATER MIDDLE RIVER COMPLEX SEDIMENTS

Appendix I—
Revised Evaluation of Geotextile Fabric Containers

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

January 2011

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Acronyms

ASTM	American Society for Testing and Materials
AWQC	"Ambient Water Quality Criteria"
CKD	cement kiln dust
CON	confluence
CPC	Cow Pen Creek
CSS	chemical solidification/stabilization
°F	degrees Fahrenheit
DHC	Dark Head Cover
floc	flocculant
HBT	hanging-bag test
LKD	lime kiln dust
MCL(s)	maximum concentration level(s)
MDE	Maryland Department of the Environment
mg/min	milligram(s) per minute
ml	milliliter
MRC	Middle River Complex
MSDS	"Material Safety Data Sheet"
NTU(s)	Nephelometric Turbidity Unit(s)
PAH(s)	polycyclic aromatic-hydrocarbons(s)
PCB(s)	polychlorinated biphenyl(s)
PDC	PDC Laboratories, Inc.
PP	polypropylene
ppm	parts per million
psi	pounds per square inch
SDBT(s)	sediment-dewatering-bag test(s)
SED	sediment
Shively	Shively Geotechnical, Inc.
SOW	"Statement of Work"
TenCate	TenCate Industrial Fabrics
TSS	total suspended solids
UCC	unconfined compression
USCS	"Unified Soil Classification System"
USEPA	United States Environmental Protection Agency

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1.0 Introduction/Study Objectives

As part of the Middle River Complex (MRC) sediment-sampling program, sediment from Cow Pen Creek (CPC) and Dark Head Cove (DHC) was collected and a pre-design testing program performed to evaluate dewatering methodologies that may be used during future sediment remediation. This section focuses on the pre-design testing phase of the project (i.e., passive sediment-dewatering testing using sediment-dewatering-bag technology).

1.1 Pre-Design Testing Description

If, in the future, the Maryland Department of the Environment (MDE) or other regulator requires removal of contaminated sediments from CPC or DHC, Lockheed Martin will need information on sediment-dewatering technologies and associated dewatering and performance characteristics (e.g., achievable sediment percent-solids) as a starting point for sediment remediation. This project task evaluates if sediment-tube dewatering technology can dewater CPC and DHC sediments so that the final sediment product may be further treated [via chemical solidification/stabilization (CSS)] and managed before disposal.

1.2 Treatment Technology Description

Technology alternatives for dewatering dredged sediments include:

- centrifuges (mechanical dewatering)
- belt presses (mechanical dewatering)
- sediment-drying beds
- plate-and-frame filter presses (mechanical dewatering)
- geotextile bags/containers and tubes (passive dewatering)

This testing assessed, through treatability-study testing, the passive dewatering alternative, since it is a relatively low-cost, high-volume dewatering-alternative that has been used successfully on

numerous environmental dredging projects. In addition, geotextile tubes allow for flexible operations (e.g., tubes can be stacked; filtrate can be drained directly to surface stream or collected in containment structures) at remediation sites where space for remedial activities may be limited and not suitable for mechanical dewatering facilities/equipment.

The sediment dewatering cycle associated with geotextile tubes/containers has three phases:

1. ***Phase 1—Sediment Filling/Containment:*** Sediment, typically pre-treated with one or more sediment/sludge-conditioning polymers, is pumped into the geotextile bag/tube. The sediment bag/tube, constructed of high-strength permeable geotextile, is uniquely designed to retain sediment or solids and release pore water so that it flows from the sediment bag/tube.

2. ***Phase 2—Sediment Dewatering:*** Pore water, separated from sediment primarily through use of an optimal conditioning polymer, drains from pores in the geotextile bag/tube resulting in sediment dewatering and subsequent sediment volume reduction. In many cases, the water quality of pore water released will allow for its discharge to receiving water without subsequent treatment.

3. ***Phase 3—Sediment Consolidation:*** After Phases 1 and 2, sediment solids continue to consolidate and release residual moisture remaining in the sediment through the pores of the geotextile tube/container. Often, if the sediment tube is allowed to continue dewatering and consolidate, sediment volume reduction can reach as high as 90%.

Geotextile tube/bag tests (also known as pillow tests) were performed to test the applicability of geotextile tubes to dewatering site-specific sediments. Geotextile tubes (pillows) and filter material, as well as the general methodologies followed during laboratory testing, were obtained from TenCate Industrial Fabrics (TenCate) of Commerce, Georgia. The original "Statement of Work" (SOW) suggested that a hanging-bag test (HBT) to assess dewatering characteristics of MRC sediments. However, Tetra Tech performed sediment-dewatering-bag tests (SDBTs) (horizontal configuration) for the following reasons:

- SDBTs require less sediment slurry volume than the HBT
- The SDBT has constant fill pressure through a mechanical fitting where the HBT has periodic high fill pressure (head) when pumped or poured sediment falls from the top of the open bag to the bottom. The SDBT can monitor the pressure head, whereas the HBT does not measure pressure head. The ability to quantitatively monitor hydraulic head

(inlet pressure) allows assessment of the effects of fabric, slurry, and chemical (polymer) additives on passive sediment-dewatering.

- The SDBT uses a small one-cubic-foot (7.5 gallons) geotextile bag with a horizontal orientation, whereas the HBT requires a larger, bulky, vertical bag that can hold up to approximately 50 gallons of liquid. The SDBT simulates the orientation of the sediment tubes used in full-scale environmental remediation applications

- The SDBT better simulates dewatering processes that occur in full-scale sediment dewatering tubes/bags

1.3 Treatability Testing Objectives

Sediments may be dredged from CPC and DHC as part of this potential MRC remediation. Dredged sediments will require dewatering before being transferred to a landfill. Dewatering the sediment will reduce its volume, subsequently reducing transportation costs to the landfill (also known as a sediment-management unit). Treatability testing focused on passive sediment-dewatering technology using a geotextile fabric. The objectives of the SDBT and associated analytical and geotechnical tests were as follows:

1. Define optimal chemical-conditioning agent that can enhance sediment-dewatering in a sediment tube/bag

2. Represent sediment-dewatering on a pilot-scale

3. Define sediment-dewatering rates and dewatering cycle-time based upon test data

4. Quantify passage of sediment solids (suspended solids) through the geotextile container (tube or bag) holding the dredged sediment

5. Define the final total-solids-concentration (achievable percent solids) of dewatered sediments and determine if the sediment tubes can generate a final product that meets dewatering goals

6. Define sediment pore-water chemical characterization to develop management alternatives

7. Define the physical and geotechnical characteristics of dewatered sediment

8. Define which CSS agent (fly ash, Portland cement, kiln dust, or slaked lime) can produce a sediment matrix with sufficiently strong for landfill disposal and at what dosage

Relatively few geotextile types are designed and commercially available for sediment dewatering applications, based on a review of information from geotextile manufacturers/suppliers. TenCate's Geotube GT 500 dewatering fabric is one of the few specifically identified for, and proven effective in, dewatering dredged sediments. For this reason, this fabric was used in the pillow testing. GT 500 geotextile container material is a specially-engineered dewatering geotextile manufactured from high-tenacity polypropylene (PP) multifilament and monofilament yarns. These PP yarns are woven into a stable network to form the containment structure. The GT 500 geotextile container is inert to biological degradation and resistant to chemicals typically encountered in surface waters containing sediments, as well as to acidic or basic solutions.

2.0 SEDIMENT COLLECTION AT THE MIDDLE RIVER COMPLEX

Sediment samples for dewatering testing were collected August 23–26, 2010 from three different locations below surface waters surrounding the Middle River Complex (MRC). A sediment dredging barge, operated by personnel/crew from Normandeau Associates (Stowe, Pennsylvania), collected the sediment samples using a Vibracore® sediment sampler and associated equipment. Tetra Tech directed and observed the sediment sampling from onboard the barge. The three sediment-sampling locations were designated in the field as follows:

- **Confluence (CON)-sediment (SED)—**This sediment sampling location is at the confluence of DHC and CPC
- **Dark Head Cove (DHC)-SED**—This sediment sampling location is under the surface waters of DHC
- **Cow Pen Creek (CPC)-SED—**This sediment sampling location is under the surface waters of CPC

Figure 2-1 shows the general locations and coordinates where the CON-SED, DHC-SED and CPC-SED sediment samples were collected. All sediment-sampling points were recording using GPS and the "Coordinate System"—U.S. State Plane 1983; North American Datum (NAD) 83; Maryland 1900.

Actual sampling locations were selected using Thiessen polygons depicting polychlorinated biphenyls (PCBs), polycyclic aromatic-hydrocarbons (PAHs), chromium, and cadmium contamination (contaminants of concern driving possible remediation activities at the MRC) at the three horizons sampled during the last phase of the MRC sediment investigation. The overall objective behind the sampling effort was to collect representative sediment media to be used for the sediment dewatering-bag test(s) (SDBTs). Tetra Tech personnel from the Germantown, Maryland; Stone Mountain, Georgia; and Collinsville, Illinois offices made the final selection of

sediment-sampling locations to be used to generate representative samples for the sediment-dewatering tests.

In addition to the sediment samples (which were placed in clean five-gallon plastic buckets), surface water samples were also collected near the sediment sampling locations. Surface water samples were collected into five-gallon carboys for subsequent transportation to the testing laboratory, where they were used to create sediment slurry that was poured into the sediment-dewatering bags. Photo documentation of sediment sampling at the MRC is in Appendix A. After sediment and surface-water sample collection, samples were transported via truck from Baltimore to the St. Louis, Missouri area and subsequently delivered to PDC Laboratories, Inc. (PDC) for storage until the start of the sediment characterization and dewatering testing. Tetra Tech characterized the sediment and tested dewatering methods at PDC with assistance, as necessary, from PDC technicians and chemists.

3.0 Raw (*in situ*) Sediment Characterization (Geotechnical Testing)

After delivering the sediment samples to PDC Laboratories, Inc. (PDC), Tetra Tech collected representative samples of confluence sediment (CON-SED), Cow Pen Creek sediment (CPC-SED), and Dark Head Cove sediment (DHC-SED) for geotechnical characterization testing by Shively Geotechnical, Inc. (Shively) of Fairview Heights, Illinois. Geotechnical tests during raw sediment characterization were as follows:

- Moisture Content (ASTM D 2216)
- Particle Size Distribution (ASTM D422)
- Organic Content (ASTM D2974)
- Atterburg Limits (ASTM D 4318

The geotechnical testing results represent *in situ* sediment characterization before dewatering. Data sheets generated by Shively during all phases of the dewatering tests are in Appendix B.

In situ characterization results for the CON-SED, CPC-SED, and DHC-SED sediments are presented in Tables 3-1, 3-2, and 3-3, respectively. Results of the geotechnical tests led to classification of the three sediment samples as follows:

- CON-SED: fat clay at 35.8% solids
- CPC-SED: elastic silt at 43.4% solids
- DHC-SED: clayey sand at 54.3% solids

Sediment classifications used herein are defined according to the United “Unified Soil Classification System” (USCS).

In situ sediment samples were analyzed at PDC (analysis data sheets generated during this and all test phases by PDC are in Appendix C) and aliquots were sent to WaterSolve, Grand Rapids,

Michigan (a company affiliated with TenCate that performed courtesy sediment-conditioning tests; preliminary testing only for polymer-type selection) for solids-content analyses to assess the accuracy of the Shively results. Using the results from the other two laboratories, the average *in situ* percent-solids is as follows:

- CON-SED: 35.8% (Shively) + 35.7 % (PDC) + 34.4% (WaterSolve) = 35.3% average
- CPC-SED: 43.4% (Shively) + 44.3% (PDC) + 40.9% (WaterSolve) = 42.9% average
- DHC-SED: 54.3% (Shively) + 44.6% (PDC) + 42.8% (WaterSolve) = 47.2% average

Overall, the solids content (percent) results from each of the three laboratories identified above are very similar. The percent solids concentration is important in determining how to formulate the sediment-slurry volumes to be introduced into the sediment-dewatering bags. Target sediment-slurry concentrations to be introduced to the bags were approximately 10% solids (based upon typical hydraulic dredging percent-solids) for each sediment type.

4.0 Sediment-Conditioning Evaluations and Results

4.1 Preliminary Sediment-Conditioning Evaluations

In most cases, chemical conditioning is required to create a sediment slurry, comprised of a flocculated matrix that will maximize the release of pore water from the sediment slurry matrix with a minimum of fine suspended solids passing through a geotextile fabric (such as in the sediment dewatering-bag test [SDBT] scenario). During sediment-conditioning evaluations, various polymers were evaluated based on water release rate, water clarity, and flocculant (floc) appearance. After an optimal polymer-conditioning system was defined, bench-scale confirmation tests were performed on each sediment to define the performance that could be expected during the larger scale SDBTs. This section describes the sediment-conditioning evaluations and the associated results.

4.1.1 Preliminary Sediment-Conditioning Testing Procedures

Preliminary sediment-conditioning tests were conducted by WaterSolve (a polymer supplier affiliated with TenCate) as a courtesy, since Tetra Tech was using TenCate sediment-dewatering bags for the treatability tests. Twenty-four cationic and anionic polymers were diluted to a 0.5% solution for the preliminary sediment-conditioning tests. Polymers and coagulants were added to sediment-slurry samples using a 10 milliliter (ml) plastic syringe and then gently tumbled five to seven times to distribute the dewatering aids into the sediment-slurry matrix.

Observations of water release, water clarity, and floc appearance were recorded. Polymer(s) that flocculated and dewatered the sediment most effectively were re-evaluated at lower dosages to isolate the most effective sediment-conditioning agent(s). Dual polymer systems were also evaluated with the intention of achieving overall improvements in water clarity and release volume as compared with single polymer applications.

4.1.2 Preliminary Sediment-Conditioning Testing Results

Preliminary sediment-conditioning results are summarized in Tables 4-1 through 4-3. Table 4-1 shows the polymer screening results for a variety of cationic and anionic polymers with respect to water release rate, water clarity, and floc appearance. These results identified a dual-polymer system, including Solve 426 (Solve 426 and Solve 127 supplied by WaterSolve, LLC in Grand Rapids, Michigan) as producing the best results. This prompted further evaluation of dual-polymer systems. Table 4-2 shows the screening results of the dual-polymer system, including Solve 426.

The polymer system producing the best results consisted of Solve 426, followed by Solve 127. Table 4-3 shows the results of the optimum polymer system (Solve 426 and Solve 127) added to samples of confluence sediment- (CON-SED), Cow Pen Creek sediment- (CPC-SED), and Dark Head Cove sediment- (DHC-SED) slurry. In all cases, results were excellent with respect to optimal water release rate, water clarity, and floc appearance.

Chemical conditioning with a consecutive dual polymer application of Solve 426 at 88 parts per million (ppm) followed by Solve 127 at 125 ppm proved (based upon the results in Tables 4-1 though 4-3) the most effective in flocculating and dewatering the Middle River Complex (MRC) sediment slurries, as compared with other chemical conditioning programs. Water release volumes and flocculent appearance were deemed excellent during preliminary bench-scale testing. Polymer addition results were rated on a qualitative scale of 1–6, with 1 associated with the “best” performance and 6 associated with the “worst” performance as compared with other polymers. These designations are assigned by WaterSolve as a way of indicating polymer performance in subject test-media.

Performance associated with the addition of Solve 426 followed by the addition of Solve 127 was “1” for water release and “1” for floc appearance as compared to other polymer additions tested. After passing a 200-ml slurry sample (4:1 water to sediment ratio at 7.1% solids) conditioned with 88 ppm of Solve 426 and 135 ppm of Solve 127 through a GT500D filter (rapid-dewatering test-protocol), percent solids in the resultant sediment cake increased to 18.9% after an hour of drying time. From this 200-ml conditioned-sediment-slurry sample, 60 ml and

125 ml of pore water was released in one minute and 60 minutes, respectively, after passing through the geotextile filter.

Preliminary testing results helped define the specifications for the recommended dual-polymer sediment-conditioning system for the larger-scale SDBTs as follows:

- recommended polymers: Solve 426 at 88 ppm; Solve 127 at 125 ppm. "Material Safety Data Sheet" (MSDS) information on these polymers is in Appendix D
- Solve 426 solution concentration: Can be fed neat; 1.0% solution
- Solve 127 solution concentration: 0.5% solution aged in batch feed tank prior to injection into slurry stream
- water:sediment ratio: 4:1
- mixing energy: moderate to high

The recommend polymer dosages, based on the information presented above, for use during the confirmation sediment-conditioning evaluation and sediment-dewatering-bag tests are as follows:

- Solve 426: 133 ml/four-gallon batch of sediment slurry
- Solve 127: 189.25 ml/four-gallon batch of sediment slurry

4.2 Confirmation Sediment-Conditioning Evaluation

4.2.1 Confirmation Sediment-Conditioning Testing Procedures

Tetra Tech performed additional confirmation tests following the preliminary sediment-conditioning tests to ensure that the Solve 426 and Solve 127 polymer system produced an optimal product with respect to sediment dewatering and pore-water release and clarity. Tetra Tech's confirmation tests consisted of adding the optimal Solve 426 and 127 dosages, half optimal dosages, and two times (2×) optimal dosages to 200 ml of sediment slurry samples, mixing, and then filtering them through GT500 geotextile filter media. Water release volumes were recorded at one and 60 minutes to assess water release rates.

As a second test, after the sediment slurry samples were filtered, the resultant sediment filter cakes were allowed to dry for approximately three days at an ambient temperature of about 72 degrees Fahrenheit (°F). At the end of the three-day period, samples of the sediment cakes were submitted to PDC for percent-solids analyses. These results were expected to provide an insight as to the degree of dewatering that could be expected in the larger scale SDBTs. Photo documentation of Tetra Tech's sediment-conditioning confirmation testing is in Appendix E.

4.2.2 Confirmation Sediment-Conditioning Testing Results

Tables 4-4 ("Water Release Results") and 4-5 ("Sediment-Cake Percent-Solids") provide the results of the Tetra Tech sediment-conditioning confirmation tests. The results in these tables indicate that the medium polymer dosages, which were the optimal polymer dosages in the WaterSolve tests, released water at a relatively fast rate with an associated clear supernatant. In addition, the medium polymer dosage (88 ppm for Solve 426 and 125 ppm for Solve 127) produced a sediment cake with relatively high percent-solids. For these reasons, Tetra Tech concurred with the WaterSolve sediment-conditioning results and implemented the recommended polymer dosages in the larger scale SDBTs using geotextile fabric bags/tubes. As a reminder, the recommended polymer dosages, which eventually became the actual polymer dosages during the sediment-bag dewatering tests, are as follows:

- Solve 426: 133 ml/four-gallon batch of sediment slurry
- Solve 127: 189.25 ml/four-gallon batch of sediment slurry

5.0 Sediment Dewatering-Bag Testing Procedures and Results

5.1 Sediment-Dewatering-Bag Testing Procedures

5.1.1 Preparation of Sediment Slurry for Introduction to Sediment-Dewatering Bags

Once the conditioning agents were selected for the sediment-dewatering tests, conditioned sediment-slurry samples were prepared for introduction into sediment-dewatering bags. The size of the equipment needed to prepare the sediment slurry volumes (up to 30 gallons) necessitated preparing the slurry in the PDC parking lot. For each of the sediments, the raw, *in situ* sediment was mixed with surface water (collected from near the sediment samples) in a pre-cleaned 45-gallon plastic container. As the sediment slurry was mixed, a four-gallon aliquot of the slurry was collected for the sediment-slurry conditioning.

Sediment-slurry conditioning consisted of adding optimal doses of Solve 426 and Solve 127 polymers into the five-gallon bucket of slurry and then mixing it using a drill mixer. After a good floc formed in the sediment slurry (typically within 30 seconds), the conditioned sediment was ready to be poured into the funnel and standpipe attached to the sediment-dewatering bag. Target percent-solids for the sediment-slurry batches was 10% solids.

Laboratory calculations called for filling the sediment-dewatering bag with, typically, five to eight batches of conditioned sediment. Note that filling the sediment-dewatering bag was stopped when the sediment slurry in the plastic standpipe attached to the bag reached a standing height of 27 inches. This sediment slurry height represents a simulated bag pressure of one pound per square inch (psi). Photo documentation of sediment slurry preparation and bag filling is in Appendix F.

One sample of each conditioned-sediment slurry was submitted to Shively for grain-size, moisture-content, and organic-content analyses. These data are considered the starting point of the dewatering tests and were compared with the final dewatered-sediment geotechnical results to define the percent-solids achievable with passive-dewatering technology, in addition to defining the achievable volume reduction. Only one sample of each sediment was submitted for geotechnical testing, not every batch of conditioned sediment. This may have resulted in slight variability in sediment-slurry percent-solids concentrations from batch to batch; however, this is not considered large enough to affect the conclusions of the analysis.

5.1.2 Sediment-Dewatering-Bag Test Procedures

As previously discussed, the purpose of the SDBTs was to: (1) visualize sediment dewatering; (2) evaluate the efficiency of the selected sediment-conditioning polymer; (3) assess the quality and clarity of the sediment-bag filtrates; and (4) predict the achievable percent-solids using passive-dewatering technology. The procedures/steps for conducting the SDBTs, some of which have been previously discussed, were as follows:

- ***Step 1:*** Assembled sediment pillow-bag frame/support structure (polyvinyl chloride piping or milk crate assembly) and placed a 35- to 45-gallon plastic container under the framing to capture the effluent from the sediment-dewatering bag. Placed the sediment-dewatering bag on top of the frame and inserted the 27-inch stand pipe into the pillow-bag fill port. (The 27-inch standpipe represents approximately 1-psi head pressure on the pillow during filling).

- ***Step 2:*** Placed up to 35 gallons of a 4:1 water-sediment slurry into a pre-cleaned 45-gallon container and mixed to create a homogeneous slurry mixture. As the slurry was being mixed, four-gallon aliquots of the slurry to be conditioned were collected.

- ***Step 3:*** The predetermined optimal conditioning-polymers were added to four-gallon batches of sediment slurry, rapidly mixed, and continually stirred to prevent sediment floc from settling before pouring the mixture into the sediment-dewatering bag.

- ***Step 4:*** Using a small bucket and funnel, filled the sediment-dewatering bag by pouring conditioned sediment into the top of the 27-inch standpipe. The volume of sediment poured into the bag was recorded.

- ***Step 5:*** Continued to fill the sediment pillow with conditioned sediment as rapidly as possible until the sediment rose in the standpipe to the 1 psi calibration mark. When that mark was reached, the bag was considered full and collection of effluent samples (filtrate) began. After sediment pouring stopped and the sediment had been emptied from the standpipe, the standpipe was carefully removed from the pillow and the fill-port plug was installed for the duration of the test.

- ***Step 6:*** Collected sediment dewatering bag effluent samples (filtrate) throughout the duration of the sediment-dewatering-bag tests for total suspended solids (TSS) and turbidity measurements. While filling up the sediment-dewatering bag, water began to flow out of the pores of the geotextile fabric into the collection reservoir. This "first flush" water (filtrate or pore water) was collected for 10 minutes after it began to flow out of the bag, analyzed for TSS and turbidity, and then pumped back into the sediment-dewatering bag (using a portable hand pump) to fill up the bag according to manufacturer's specifications.

    - Pore water collected after the first 10-minute flush of the SDBT was composited throughout the duration of the test. This pore water, not considered "first flush," was identified as the "steady-state" pore water and was composited and analyzed.

    - When collecting effluent samples from the sediment-dewatering bags, the volume of water collected was recorded so that solids mass-balance calculations could be performed during the treatability-testing data evaluation.

    - For the duration of the SDBTs, sediment pore-water volumes collected in the reservoirs under the sediment-pillow frame were recorded daily and the pore water was then transferred into a master effluent composite container for additional chemical analyses at the end of the SDBTs.

- ***Step 7:*** In addition to collecting TSS samples during the SDBTs, dewatered sediment in the geotextile bags was analyzed for moisture content, and paint-filter tests were performed. The paint-filter liquids test (SW-846 Method 9095A) involves placing a predetermined amount of waste material into a paint filter. If any portion of the material (i.e., liquid fraction) passes through and drops from the filter within five-minutes the material is deemed to contain free liquid. Since most landfills cannot accept free liquids (doing so is a violation of waste acceptance criteria), paint-filter tests were run to assess if the waste (sediment) could be accepted in a landfill without further treatment. As with the TSS samples, records of sediment mass were collected during each sediment-sampling event to use in future solids mass-balance calculations. Sediment samples were collected by removing the pillow fill-port plug and collecting the sample with a spatula or small soil-probe.

- Visual observations and measurements (i.e., estimated sediment depth in the dewatering pillow) were used to define sediment dewatering behavior and conditions signaling the completion of the dewatering tests. Photographs were taken during the SDBTs and other laboratory activities as documentation.

5.1.3 Sediment Pore-Water Characterization

As previously described, pore water was generated throughout the SDBTs and analyzed at specified times for TSS. Each day, laboratory technicians measured the volume of pore water released from the dewatering geotextile-bags. Pore water was then collected in a container under the dewatering bag and poured into the composite container dedicated for each SDBT. After the SDBTs, the dedicated composite containers were combined and representative samples were collected for TSS, polychlorinated biphenyls (PCBs), polycyclic aromatic-hydrocarbons (PAHs), and priority-pollutant-metals analyses. Results of these analyses defined subsequent sediment-pore-water management alternatives.

5.1.4 Dew atered-Sediment Characterization

Sediment-dewatering bags were weighed at the end of each dewatering test (as signaled by minimal or no release of effluent sample from the sediment pillow) and dewatered-sediment samples from the dewatering bags were then collected for the following analyses: mechanical grain-size/hydrometer test, Atterberg limits, moisture content, organics content, unconfined compression strength, and paint-filter tests. Dewatered sediments were not analyzed for any chemical parameters.

5.2 Sediment-Dewatering-Bag Testing Results

5.2.1 Conditioned-Sediment-Slurry Characterization (Geotechnical Test Results)

Tetra Tech prepared five to eight batches of conditioned sediment slurry for use during sediment dewatering bag filling operations. A representative conditioned sediment slurry batch for each of the Middle River Complex (MRC) sediments collected (CON-SED, CPC-SED, DHC-SED) was sampled and submitted for the following geotechnical characterization analyses:

- total solids content (%)
- organic content (%)

- Atterberg limits
- grain-size distribution

Tables 3-1, 3-2, and 3-3 present the geotechnical results for the conditioned-sediment slurry samples submitted to PDC and Shively. The following grain-size distribution classifications were identified based on the information presented in these tables:

- ***CON-SED sediment slurry:*** Elastic silt at 10% solids (*in situ* CON-SED sediment classified as Fat Clay)
- ***CPC-SED sediment slurry:*** Elastic silt with sand a 8% (*in situ* sediment classified as Elastic Silt)
- ***DHC-SED sediment slurry:*** Elastic silt with sand at 8% (*in situ* sediment classified as Clayey Sand)

Conditioning (i.e., adding two polymers to coagulate and flocculate the sediment) appears to modify the grain-size distribution of each sediment type and subsequently modify the sediment classification. The solids content reported in Tables 3-1 through 3-3 are from only one of the several batches of sediment slurry prepared to fill up the sediment-dewatering bags to specification. Conditioned sediment slurries could also display some variability, due to variability in the sediment samples, but not enough to affect the conclusions of the analyses.

5.2.2 Sediment Dewatering Duration

SDBTs began when sediment slurry was first introduced to the dewatering bag and ended when the bags stopped releasing water to the collection reservoir. The period between each test's start and finish is considered the sediment-dewatering-duration time, which was recorded in the laboratory notes for each of the three sediment bags.

5.2.2.1 CON-SED Sediment Dewatering Period

The CON-SED SDBT began on 9/21/10 at 10:40 a.m. It was terminated and water released on 9/24/10 at approximately 12:30 p.m., when water release from the bag approached 0 ml/day. The total duration of the active dewatering phase of the test was approximately 72 hours.

5.2.2.2 CPC-SED Sediment-Dewatering Period

The CPC-SED SDBT began on 9/21/10 at 3:25 p.m. It was terminated and water released on 9/24/10 at approximately 12:30 p.m., when water release from the bag approached 0 ml/day. The total duration of the active dewatering phase of the test was approximately 69 hours.

5.2.2.3 DHC-S ED Sediment-Dewatering Period

The DHC-SED SDBT began on 9/22/10 at 9:15 a.m. It was terminated and water released on 9/24/10 at approximately 12:30 p.m., when water release from the bag approached 0 ml/day. The total duration of the active dewatering phase of the test was approximately 51 hours.

5.2.3 Solids Release Results (TSS vs. Time)

5.2.3.1 CON-SED Sediment

Tables 5-1 and 5-2 present information and data related to solids release versus time for the CON-SED SDBT. As shown by the data in these tables, the rate of solids release from the CON-SED sediment-dewatering bag decreased from approximately 7.8 milligrams per minute (mg/min) to 0.036 mg/min in approximately three days. The average solids release rate over the duration of the dewatering test was approximately 0.59 mg/min. This solids release rate produced a relatively low turbidity in the pore-water composite container of 7.8 Nephelometric Turbidity Units (NTUs).

5.2.3.2 CPC-SED Sediment

Table 5-3 and 5-4 present information and data related to solids release vs. time for the CPC-SED SDBT. As shown by the data in these tables, the rate of solids release from the CPC-SED sediment-dewatering bag decreased from approximately 78.5 mg/min to 0.005 mg/min in approximately 2.8 days. The average solids release rate over the duration of the dewatering test was approximately 0.01 mg/min. This solids release rate produced a relatively low turbidity in the pore-water composite container of 37 NTU.

5.2.3.3 DHC-S ED Sediment

Tables 5-5 and 5-6 present information and data related to solids release vs. time for the DHC-SED SDBT. As shown by the data in these tables, the rate of solids release from the DHC-SED sediment-dewatering bag decreased from approximately 76.7 mg/min to 0.008 mg/min in approximately 2.125 days. The average solids release rate over the duration of the dewatering test was approximately 2.45 mg/min. This solids release rate produced a moderate level of turbidity in the pore-water composite container of 85 NTUs.

5.2.4 Sediment Moisture Content and Paint-Filter Test Results vs. Time (Sediment-Dewatering-Bag Test Duration)

5.2.4.1 CON-SED Sediment

Table 5-7 presents sediment moisture content and paint-filter test results generated during the CON-SED SDBT. In less than seven hours after beginning to fill the sediment-dewatering bag, sediment solids-content increased from approximately 10% to 27%, and passed the paint-filter test. From 9/21/10 to 9/27/10, solids concentrations gradually increased from 27% to 37% as the sediment-dewatering bag released pore water. The final sediment-solids concentration analyzed was 36%. All sediment samples collected throughout the CON-SED dewatering test passed the paint-filter tests.

5.2.4.2 CPC-SED Sediment

Table 5-8 presents sediment moisture content and paint-filter test results generated during the CPC-SED SDBT. In less than 17.5 hours after beginning to fill the sediment-dewatering bag, the sediment-solids content increased from approximately 8% to 42%, and passed the paint-filter test. From 9/22/10 to 9/27/10, solids concentrations gradually increased from 42% to approximately 51% as the sediment-dewatering bag released additional pore water. The final sediment-solids concentration analyzed was 49%. All sediment samples collected throughout the CPC-SED dewatering test passed the paint-filter tests.

5.2.4.3 DHC-S ED Sediment

Table 5-9 presents sediment moisture content paint-filter test results generated during the DHC-SED SDBT, which started on 9/22/10. Approximately seven hours or less after beginning to fill the sediment-dewatering bag, the sediment-solids content increased from approximately 8% to 37%, but failed the paint-filter test. From 9/22/10 to 9/27/10, solids concentrations gradually increased from 37% to 52% as the sediment-dewatering bag released additional pore water. The final sediment-solids concentration analyzed was 49%. All sediment samples collected throughout the DHC-SED dewatering test passed the paint-filter tests except for the 9/22/10 paint-filter test.

5.2.5 Solids Mass-Balance

In all three test cases, total mass recovered exceeded the total calculated mass introduced to the bags. This variability can be attributed to percent-solids bias (low) in the initial conditioned-sediment slurry due to precipitation/flocculation following the addition of polymer to the sediment solids.

5.2.5.1 CON-SED Mass Balance

The sediment slurry volume introduced to the CON-SED sediment-dewatering bag and the sediment-slurry solids content (approximately 10%) lead us to estimate that approximately 11.8 pounds of solids were poured into the bag at the start of the SDBT. After the test, the CON-SED bag was weighed and a sediment sample analyzed for percent solids. Multiplying the percent solids by the wet weight of the sediment bag indicates that the bag contained 13.6 pounds of solids (solids recovery = 86.8%).

5.2.5.2 CPC-SED Mass Balance

The sediment slurry volume introduced to the CPC-SED sediment-dewatering bag and the sediment-slurry solids content (approximately 8%) lead us to estimate that approximately 25 pounds of solids were poured into the bag at the start of the SDBT. After the test, the CPC-SED bag was weighed and a sediment sample analyzed for percent solids. Multiplying the

percent solids by the wet weight of the sediment bag indicates that the bag contained 31.2 pounds of solids (solids recovery = 80.1%).

5.2.5.3 DHC-SED Mass Balance

The sediment slurry volume introduced to the DHC-SED sediment-dewatering bag and the sediment-slurry solids content (approximately 8%) lead us to estimate that approximately 26 pounds of solids were poured into the bag at the start of the SDBT. After the test was completed, the DHC-SED bag was weighed and a sediment sample analyzed for percent solids. Multiplying the percent solids by the wet weight of the sediment bag indicates that the bag contained 28.3 pounds of solids (sediment recovery = 91.9%).

5.2.6 Dew atered-Sediment Characterization (Geotechnical Tests)

After SDBTs, a large flap was cut into the top of the three horizontal bags and samples of the dewatered sediments were collected for the following geotechnical analyses:

- total solids content (%)
- Atterberg limits
- unconfined compression (UCC) strength
- organic content (%)
- grain-size distribution

Tables 3-1, 3-2 and 3-3 present the geotechnical results for the dewatered-sediment samples submitted to PDC and Shively. The information presented in these tables helped identify the following grain-size distribution classifications:

- ***CON-SED dewatered sediment*:** Elastic silt at 36% solids (*in situ* CON-SED sediment classified as Fat Clay and conditioned-sediment slurry dewatered in the sediment bags was classified as elastic silt)
- ***CPC-SED sediment slurry*:** Elastic silt with sand at 49% (*in situ* sediment classified as elastic silt and conditioned-sediment slurry dewatered in the sediment bags was classified as elastic silt with sand)
- ***DHC-SED sediment slurry*:** Sandy lean clay at 49% (*in situ* sediment classified as clayey sand and conditioned-sediment slurry dewatered in the sediment bags was classified as elastic silt with sand)

Passive sediment dewatering appeared to modify the grain-size distribution of only the DHC-SED sediment, which consequently modified the sediment classification. One possible explanation for the classification change is that the DHC-SED dewatering-bag released the most solids through the geotextile fabric. The information in Table 3-3 indicates that the solids released from the bag appear to be primarily silt. Silt distribution in the bag decreased while the sand distribution increased. This grain-size distribution change probably contributed to the dewatered-sediment-matrix classification change. Molded specimens were submitted to Shively for UCC strength analysis for CON-SED, DHC-SED, and CPC-SED. However, UCC testing was not performed on these specimens, as they were too soft and not suitable for strength testing.

5.2.7 Pore-W ater Characterization (Comparison with "Ambient Water Quality Criteria")

As previously discussed, during SDBTs, generated pore water was collected in reservoirs underneath the filled and capped dewatering bags. As the reservoirs filled with the pore water, it was subsequently pumped into composite containers to track generated volumes and for chemical characterization purposes. Once the tests were completed, pore water in the composite containers was collected and analyzed for the following parameters:

- TSS
- total PCBs
- total PAHs
- total metals (13 "Priority Pollutant" metals)
- dissolved metals (13 "Priority Pollutant" metals)
- pH
- turbidity
- dissolved PCBs
- dissolved PAHs

Pore-water analytical results associated with the SDBTs are presented in the following subsections.

5.2.7.1 CON-SED Sediment-Pore-Water Chemical Characterization

CON-SED sediment pore-water data are summarized in Table 5-10. These data were compared with "Ambient Water Quality Criteria" (AWQC) to determine if pore-water treatment may be

required before discharging the pore-water back to CPC or DHC. Comparison of these data suggests that some pollutants of concern may be in CON-SED pore water. Whether this is the case depends as well as upon which cleanup objective is applied to this project by regulators (Maryland Department of the Environment [MDE], United States Environmental Protection Agency [USEPA]). If pollutants of concern remain in CON-SED pore water, it will need to be managed through on-site or off-site treatment.

In some cases, the filtration process used during dissolved-parameter analyses reduced some pollutant concentrations. In the CON-SED pore water, filtration removed concentrations of chromium, copper, nickel, and zinc. Further investigation and treatability testing may be required to define how CON-SED sediment-pore water will be managed.

5.2.7.2 CPC-SED Sediment-Pore-Water Chemical Characterization

CPC-SED sediment pore-water data are summarized in Table 5-11. These data were compared with AWQC to determine if pore-water treatment may be required before returning it to CPC or DHC. Comparison of these data suggests that some pollutants of concern may be in CPC-SED pore water. Whether this is the case depends as well as upon which cleanup objective is applied to this project by the regulators. If pollutants of concern remain in CPC-SED pore water, it will need to be managed through on-site or off-site treatment.

In some cases, the filtration process used during dissolved-parameter analyses reduced some pollutant concentrations. In the CPC-SED pore water, filtration removed concentrations of arsenic, cadmium, chromium, copper, lead, nickel, and zinc. Further investigation and treatability testing may be required to define how CPC-SED sediment-pore water will be managed.

5.2.7.3 DHC-S ED Sediment-Pore-Water Chemical Characterization

DHC-SED sediment pore-water data are summarized in Table 5-12. These data were compared with AWQC to determine if pore water treatment may be required before returning it to CPC or DHC. Comparison of these data suggests that some pollutants of concern may be in DHC-SED pore water. Whether this is the case depends as well as upon which cleanup objective is applied

to this project by the regulators. If pollutants of concern remain in DHC-SED pore water, it will need to be managed through on-site or off-site treatment.

In some cases, filtration during dissolved-parameter analyses reduced some pollutant concentrations. In the DHC-SED pore water, filtration removed concentrations of cadmium, chromium, copper, lead, nickel, and zinc. Further investigation and treatability testing may be required to define how DHC-SED sediment-pore water will be managed.

6.0 Chemical Solidification/Stabilization Testing

6.1 CSS Testing Procedures

At the end of the sediment dewatering-bag tests (SDBTs), a significant portion of the dewatered sediments were used to evaluate how various chemical solidification/stabilization (CSS) agents might strengthen the dewatered-sediment matrix for disposal. Tetra Tech used four CSS agents (Portland cement, lime, kiln dust, and fly ash) at three different CSS agent/sediment ratios for the three dewatered-sediment samples. Additionally, each test specimen (2-inch by 4-inch plastic mold) was prepared essentially in quadruplicate to track how the CSS agent strengthened the sediment matrix over a 28-day curing period (with four different breaks). Tables 6-1 through 6-3 identify the actual sediment specimens created using dewatered confluence sediment (CON-SED), Cow Pen Creek sediment (CPC-SED), and Dark Head Cove sediment (DHC-SED) samples, along with the results of the related unconfined compression (UCC,) density, and moisture content tests.

A literature review led to the conclusion that the appropriate quantities of CSS agents to be added to the sediments are approximately 2.5%, 7%, and 15% by weight of the wet sediment. Sediment was blended into a homogeneous matrix after the addition of CSS agent and then placed into the mold before being taken to the geotechnical laboratory for the 7-, 14-, 21-, and 28-day curing process. After curing, specimens were taken out of the molds to undergo the UCC strength tests, along with companion sediment-density and moisture content tests. The first specimen breaks were to occur at three days, but all specimens demonstrated soft surfaces and were not yet suitable for testing. Samples were allowed to cure for at least seven days before initiating any sediment-specimen breaks using the UCC testing equipment.

Tetra Tech obtained CSS agents from the following sources:

- lime (Home Depot)
- slaked lime (Lowes Home Improvement Store
- cement kiln dust (Continental Cement Company, Hannibal, Missouri)
- class C fly ash (Lafarge Concrete, Iowa)
- Portland cement (Home Depot): commercial grade Quikrete Type I Portland cement (ASTM C 150 Type I) "Material Safety Data Sheet" (MSDS) and other CSS agent specifications are included in Appendix G.

6.2 CSS Test Results

6.2.1 CON-SED CSS Test Results

Table 6-1 summarizes the CSS results associated with the CON-SED dewatered sediment. As shown in this table, the CSS agents that most strengthened the dewatered-sediment matrix are slaked lime, fly ash, and Portland cement at the higher dosages. Portland cement adds the most strength to the CON-SED matrix. Typically, matrix strength increased as sediment density and solids content increased. The addition of kiln dust as a CSS agent did not add any strength to the CON-SED matrix.

6.2.2 CPC-SED CSS Test Results

Table 6-2 summarizes the CSS results associated with the CPC-SED dewatered sediment. As shown in this table, the CSS agents that most strengthened the dewatered-sediment matrix are slaked lime, fly ash, and Portland cement. Portland cement adds the most strength to the CPC-SED matrix. Typically, matrix strength increased as sediment density and solids content increased. As was the case with the CON-SED testing, kiln dust did not add any strength to the CPC-SED matrix.

6.2.3 DHC-SED CSS Test Results

Table 6-3 summarizes the CSS results associated with the DHC-SED dewatered sediment. As shown in this table, the CSS that most strengthened the dewatered-sediment matrix are slaked lime and Portland cement. Typically, matrix strength increased as sediment density and solids content increased. As was the case with the other two sediments, Portland cement adds the most

strength to the DHC-SED matrix. As was the case with the CON-SED and CPC-SED testing, kiln dust did not add any strength to the DHC-SED matrix.

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7.0 Study Conclusions and Recommendations

The results of the pre-design testing led to the following conclusions and recommendations:

7.1 Stud y Conclusions

1. Of the various polymers tested during the preliminary and confirmation sediment-conditioning evaluations, the dual-polymer system of Solve 426 and Solve 127 produced the optimal results for coagulating and flocculating sediment-slurry solids and separating sediment solids from pore water.

2. Sediment dewatering with the GT500 geotextile fabric produced dewatered sediment cakes with acceptable solids content (confluence sediment [CON-SED] = 36%; Cow Pen Creek sediment [CPC-SED] = 49%; Dark Head Cove sediment [DHC-SED] = 49%), which passed paint-filter tests and released minimal solids into generated pore water.

3. Pore water generated during the sediment dewatering-bag test(s) (SDBTs) was generally clear with respect to solids and turbidity but still may contain constituents, which exceed "Ambient Water Quality Criteria" (AWQC). Therefore, pore water may require treatment on-site before being returned to CPC or DHC or require some other management approach (disposal via a publicly owned treatment-works under a pre-treatment permit).

4. In most cases, filtered parameter-concentrations (dissolved fraction) are less than their total concentrations, particularly in relation to metals concentrations. In some cases, the resulting filtered concentration was reduced to below AWQC. Therefore, on-site pre-treatment of pore water with filtration may be an option before discharging pore water back to CPC or DHC. This option would require communication and approval by the relevant regulators.

5. The results of the chemical solidification/stabilization (CSS) evaluations suggest that Portland cement is the CSS agent demonstrating the greatest unconfined compression (UCC) strength in each of the three sediments tested. As would be expected, the highest dose (CSS agent: wet sediment ratio) adds the most strength to the sediment matrix. The UCC strength of a specimen tended to increase with an increase in density and solids content. The highest UCC strength-test recorded during the study was 11.2 psi in the 21-day specimen for the CON-SED using 15% Portland cement. Both slaked lime and fly ash add some strength to the sediment matrices, but not as much as Portland cement. Kiln dust additions produced

specimens that did not cure and remained soft to the point that the geotechnical laboratory declared the specimen unacceptable for testing. Therefore, this CSS agent (at least as a standalone agent) may be eliminated from any potential further evaluation.

7.2 Stud y Recommendations

1. If dredging of CPC or DHC is required in future, use of the dual-polymer system (Solve 426 and Solve 127) and sediment-dewatering tubes constructed with GT500 geotextile fabric should be considered to dewater the sediment, due to the favorable results generated during the SDBT.

2. Pore-water chemical characterization should probably be compared to the existing water quality in CPC and DHC to see if an untreated discharge would degrade existing water quality.

3. If greater sediment matrix strength is required for disposal, additional CSS tests should be considered using higher CSS agent to sediment ratios. Potential candidates for further evaluation would include Portland cement, slaked lime, and possibly fly ash.

4. It may be of value to the project to perform some supplemental testing on generated pore water to better define management strategy. As the first step in this process, regulatory requirements associated with the pore water discharge would have to be defined and pore water characterization results compared to the effluent cleanup objectives/effluent limitations to determine if on-site or off-site treatment is required. If treatment is required, the next step in the process would be to define candidate unit operations or processes needed in a treatment train to address specific pollutants of concern. Based on a conservative approach to anticipated pore water cleanup objectives for discharge, candidate treatment operations that may be evaluated during the Feasibility Study activities could include ultrafiltration, sand filtration, and activated carbon. Additional unit operations could be evaluated to address the removal of arsenic in pore water, if necessary. Once candidate unit operations/processes are identified for screening, a work plan would be developed in conjunction with the data quality objectives and analytical plan. After approval of the work/analytical plan, screening tests would be implemented possibly followed by process confirmation testing on a laboratory bench-scale or field pilot-scale.

5. Additional chemical solidification/stabilization testing should be considered to fine-tune dewatered sediment management strategy. Tasks associated with this supplemental testing could include: (1) Identify local candidate landfills that may be able to accept processed river sediment and define sediment matrix strength specifications, (2) Perform supplemental CSS testing with CSS agents (i.e., Cement Kiln Dust, Lime kiln dust, fly ash) from several different local (Baltimore Area) suppliers, and (3) Perform CSS tests using multiple additives (i.e., low dosage of Portland cement with moderate dosages of CKD, LKD and/or fly ash).

6. To achieve acceptance of the dewatered sediments into a candidate landfill, it is recommended that dewatered sediment be characterized to define specific waste acceptance criteria parameters. Additionally, based upon the availability of finalized strength requirements of the dewatered sediments, additional testing may be required to optimize CSS agent additives to achieve defined strength and/or free liquid requirements.

8.0 References

1. Tetra Tech, Inc. 2010. *Additional Characterization and Sediment Sampling Work Plan, Middle River Complex, 2323 Eastern Blvd. Middle River, Maryland*. July.

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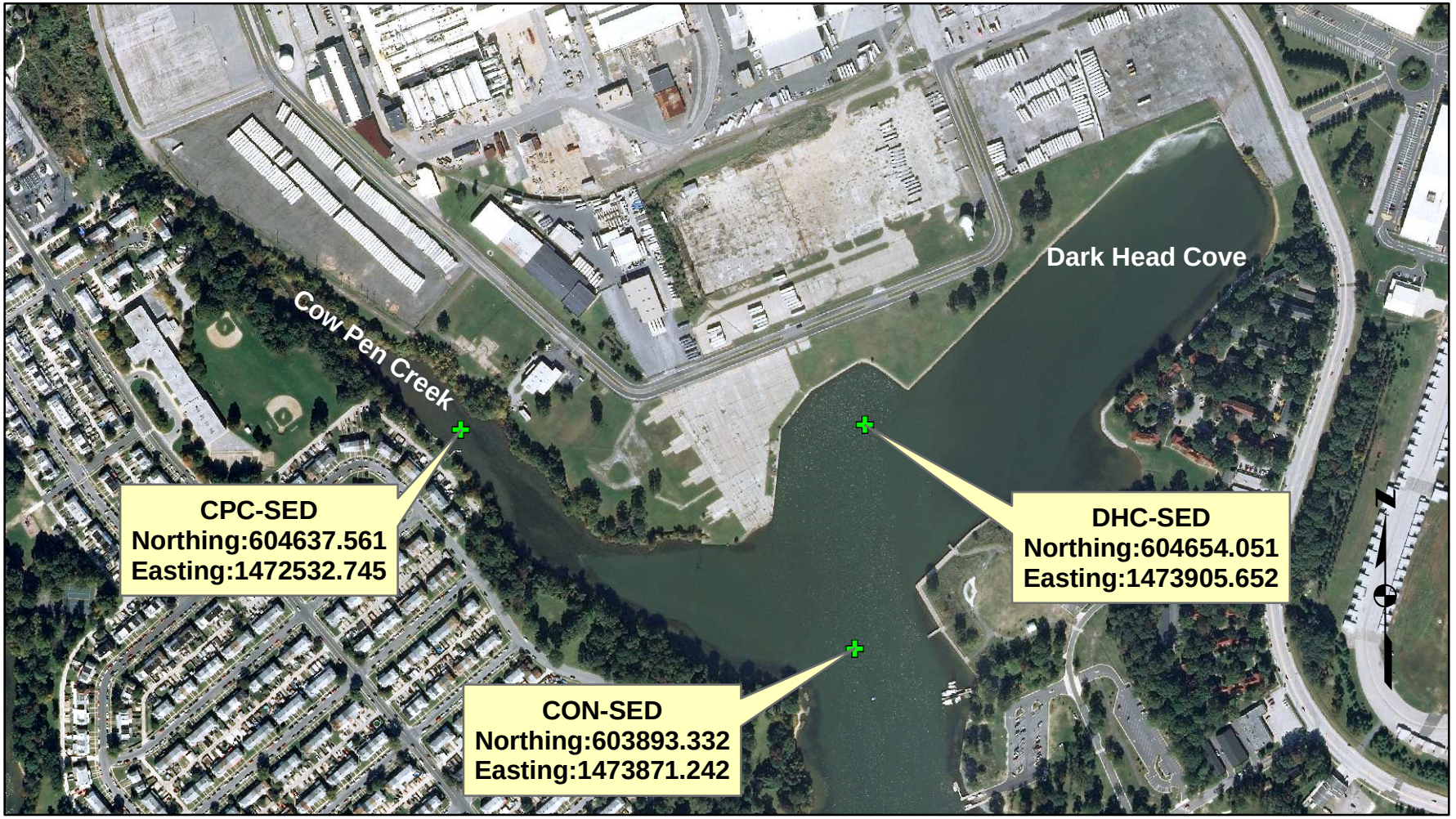
3. WaterSolve, LLC, 2010. Dewatering trial performance. September.

4. USEPA, 2006. Compilation of "National Recommended Water Quality Criteria." (http://www/epa.gov/waterscience/criteria/nrwqe-2006.pdf)

5. USEPA, 2006. Tabular form—AWQC. (http://www.epa.gov/waterscience/criteria/wqcriteria.html)

Figures



0 245 490 980 Feet

Coordinate System: Maryland State Plane Feet
Datum: NAD 83

Legend

✚ Approximate Sample Locations

TETRA TECH

www.tetratech.com

1634 Eastport Drive
Collinsville, IL 62234
PHONE: 618-345-0669 FAX: 618-345-1281

Drawing Description

Approximate Sediment Sampling Locations for Dewatering Tests

Lockheed Martin Middle River Complex
Middle River, Maryland

Project No.:	100-AMC-26244
Date:	11/15/2010
Drawn By:	DEF

Figure Number

2-1

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Tables

Table 3-1
CON-SED Sediment Sample Geotechnical Results
Lockheed Martin Middle River Complex
Middle River, Maryland

Sample ID	% Solids	Organic Content, %	Atterberg Limits			Grain Size Distribution					Unconfined Compression Strength (psi)
			Liquid Limit	Plastic Limit	Plasticity Index	% Gravel	% Sand	% Silt	% Clay	Classification	
In-Situ CON-SED Sediment	35.8	4.6	82	36	46	0.0	4.3	25.4	70.3	Fat Clay	Not Requested
Conditioned Sediment Slurry Before Dewatering	10.0	6.8	89	40	49	0.0	3.4	31.9	64.7	Elastic Silt	Not Requested
Sediment After Dewatering in Geotextile Fabric Tube/Pillow	36.0	6.1	86	40	46	0.0	2.7	27.9	69.5	Elastic Silt	*

psi = pounds per square inch
*Molded specimens submitted to Shively Geotechnical Laboratory. However, testing was not performed on the specimens as they were too soft and not suitable for strength testing.

Table 3-2
CPC-SED Sediment Sample Geotechnical Results
Lockheed Martin Middle River Complex
Middle River, Maryland

Sample ID	% Solids	Organic Content, %	Atterberg Limits			Grain Size Distribution					Unconfined Compression Strength (psi)
			Liquid Limit	Plastic Limit	Plasticity Index	% Gravel	% Sand	% Silt	% Clay	Classification	
In-Situ CPC-SED Sediment	43.4	6.4	69	35	34	0.0	14.2	36.6	49.2	Elastic Silt	Not Requested
Conditioned Sediment Slurry Before Dewatering	8.0	8.6	68	41	27	0.0	18.5	57.8	23.7	Elastic Silt with Sand	Not Requested
Sediment After Dewatering in Geotextile Fabric Tube/Pillow	49.0	7.0	61	36	25	0.0	23.0	38.4	38.7	Elastic Silt with Sand	*

psi = pounds per square inch
*Molded specimens submitted to Shively Geotechnical Laboratory. However, testing was not performed on the specimens as they were too soft and not suitable for strength testing.

Table 3-3
DHC-SED Sediment Sample Geotechnical Results
Lockheed Martin Middle River Complex
Middle River, Maryland

Sample ID	% Solids	Organic Content, %	Atterberg Limits			Grain Size Distribution					Unconfined Compression Strength (psi)
			Liquid Limit	Plastic Limit	Plasticity Index	% Gravel	% Sand	% Silt	% Clay	Classification	
In-Situ DHC-SED Sediment	54.3	2.5	48	22	26	2.9	47.7	15.1	34.3	Clayey Sand	Not Requested
Conditioned Sediment Slurry Before Dewatering	8.0	5.2	59	32	27	0.0	19.3	30.8	49.9	Elastic Silt with Sand	Not Requested
Sediment After Dewatering in Geotextile Fabric Tube/Pillow	49.0	3.1	49	25	24	0.0	33.8	23.9	42.3	Sandy Lean Clay	*

psi = pounds per square inch
*Molded specimens submitted to Shively Geotechnical Laboratory. However, testing was not performed on the specimens as they were too soft and not suitable for strength testing.

Table 4-1
Preliminary Dewatering Tests Performed by Polymer Supplier (Water Solve) – Polymer Screening
CON-SED Sediment Sample
Lockheed Martin Middle River Complex
Middle River, Maryland

Test No.	Polymer Type[1]	Polymer Dose (ml)	Sludge/Slurry Test Volume (ml)	Water Release Rate (1-6)	Water Clarity (1-6)	Floc Appearance (1-6)
1	164	2	150	5	5	5
2	164	4	150	4	4	4
3	164	6	150	1-2	3	2
4	164	8	150	1-2	3	2
5	164	10	150	2-3	3	2
6	9248	5	150	6	6	6
7	9248	10	150	6	6	6
8	9330	6	150	1-2	3	1-2
9	9330	8	150	1-2	3	2
10	151	6	150	6	6	6
11	426 / 164	2 / 3	150	5	5	5
12	426 / 164	3 / 6	150	1-2	3	1-2
13	416 / 164	3 / 3	150	4	4	4
14	416 / 164	3 / 6	150	1-2	3	1-2
15	426 / 9330	3 / 3	150	4	4	4
16	426 / 9330	3 / 6	150	1-2	3	1-2
17	426 / 9330	6 / 6	150	1-2	2-3	1-2
18	416 / 9330	6 / 6	150	4	4	4
19	9395	6	150	6	6	6
20	163	6	150	6	6	6
21	9340	6	150	6	6	6
22	9327	6	150	6	6	6
23	9350	6	150	6	6	6

Test Conditions = Polymer Concentration: 0.5%
Sediment:Water Ratio = 2:3
Performance Scoring = 1=Best; 6= Worst
[1]All polymers are “Solve” products
ml = milliliter

Table 4-2
Preliminary Dewatering Tests Performed by Polymer Supplier (Water Solve) –
Dual Polymer System Screening
CON-SED Sediment Sample
Lockheed Martin Middle River Complex
Middle River, Maryland

Test No.	Polymer Type[1]	Polymer Dose (ml)	Sludge/Slurry Test Volume (ml)	Water Release Rate (1-6)	Water Clarity (1-6)	Floc Appearance (1-6)
1	426 / 9248	3 / 4	150	1	2	1
2	426 / 9248	2 / 3	150	1	1-2	1-2
3	426 / 137	2 / 3	150	1	2	2
4	426 / 127*	2 / 3	150	1	1	1
5	127	3	150	6	6	6
6	127	5	150	2	6	6
7	127	7	150	2	3	2
8	426 / 2160	2 / 3	150	3	3	3
9	426 / 9244	2 / 3	150	2	2	2
10	426 / 9330	2 / 3	150	3	4	3

Test Conditions = Polymer Concentration: 0.5%
Sediment:Water Ratio = 1:4
Performance Scoring = 1, Best; 6, Worst
*Best polymer addition system tested
[1]All polymers are "Solve" products
ml = milliliter
mg = milligram

Notes:
1) Recommended polymer addition based on preliminary results: Solve 426 followed by Solve 127
2) To 200 ml, add 3.4 ml Solve 426 followed by 5 ml Solve 127
3) Rapid Dewatering Test: Water release rate from 200 mg sample is 60 ml at one minute and 125 ml at 60 minutes
4) RDT sediment cake = 18.9% solids

Table 4-3
Preliminary Dewatering Tests Performed by Polymer Supplier (Water Solve) on Three Sediments (CON-SED, CPC-SED, and DHC-SED) – Optimal Polymer System Screening
Lockheed Martin Middle River Complex
Middle River, Maryland

Test No.	Polymer Type (Solve)	Polymer Dose (ml)	Sludge/Slurry Test Volume (ml)	Water Release Rate (1-6)	Water Clarity (1-6)	Floc Appearance (1-6)
1 – CPC-SED	426 / 127	3.5 / 5	200	1	1	1
2 – DHC-SED	426 / 127	3.5 / 5	200	1	1	1
3 – CON-SED	426 / 127	3.5 / 5	200	1	1	1

Test Conditions = Polymer Concentration: 0.5%
Sediment:Water Ratio = 1:3
Performance Scoring = 1=Best; 6=Worst
ml = milliliter

Table 4-4
Sediment Conditioning Confirmation Tests
Water Release Results
Lockheed Martin Middle River Complex
Middle River, Maryland

Test No.	Polymer Dose for 200 ml Sediment Slurry Volume[1] Solve 426/127	Water Release at One Minute (ml)	Water Release at 60 Minutes (ml/min)	Turbidity at 60 Minutes (NTU)
Test 1: CON-SED LOW	44 ppm/62.5 ppm	25 (slow)	120 (2 ml/min)	4.6
Test 2: CON-SED MED	88 ppm/125 ppm	45	120 (2 ml/min)	5.9
Test 3: CON-SED HIGH	176 ppm/250 ppm	55 (fast but cloudy)	142 (2.4 ml/min)	15
Test 4: CPC-SED LOW	44	70 (fast and clear)	138 (2.3 ml/min)	19
Test 5: CPC-SED MED	88	97 (some solids)	135 (2.25 ml/min)	18
Test 6: CPC-SED HIGH	176	25 (slow)	120 (2 ml/min)	17
Test 7: DHC-SED LOW	44	40 (average)	132 (2.2 ml/min)	22
Test 8: DHC-SED MED	88	95 (fast but cloudy)	141 (2.35 ml/min)	24
Test 9: DHC-SED HIGH	176	110 (fast but cloudy)	140 (2.33 ml/min)	34

[1]Polymers used = Solve 426 followed by Solve 127
NTU = Nephelometric Turbidity Unit
ml = milliliter
min = minute
ppm = parts per million

Note: Sediment slurry filtered through geotextile fabric (same material used for construction of geotextile sediment tube)

Table 4-5
Sediment Conditioning Confirmation Tests
Sediment Filter Cake Percent Solids After Approximately 72 Hours of Dewatering
Lockheed Martin Middle River Complex
Middle River, Maryland

Test No.	Polymer Dose for 200 ml Sediment Slurry Volume[1] Solve 426/127	Sediment Cake Percent Solids After 72 Hours of Dewatering
Test 1: CON-SED LOW	44 ppm/62.5 ppm	44
Test 2: CON-SED MED	88 ppm/125 ppm	36
Test 3: CON-SED HIGH	176 ppm/250 ppm	35
Test 4: CPC-SED LOW	44	45
Test 5: CPC-SED MED	88	46
Test 6: CPC-SED HIGH	176	43
Test 7: DHC-SED LOW	44	42
Test 8: DHC-SED MED	88	43
Test 9: DHC-SED HIGH	176	43

[1]Polymers used = Solve 426 followed by Solve 127
ml = milliliter
ppm = parts per million

Note: Sediment slurry filtered through geotextile fabric (same material used for construction of geotextile sediment tube)

Table 5-1
CON-SED Geotextile Bag Dewatering Test Results
Total Suspended Solids and Turbidity vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	TSS (mg/L)	Turbidity (NTU)	Estimated Average Solids Release Rate (mg/min)	Comments
9/21/10	10:50 am	17	2.4	--	First flush; pore water sample collected off bag before ten minute reservoir water recycle
9/21/10	11:10 am	17	2.6	7.8	Sample collected off bag
9/22/10	11:45 am	18	2.2	--	Sample collected off bag
9/23/10	9:50 am	81	6.9	0.34	Sample out of collection reservoir; dripping off bag slow
9/24/10	12:30 pm	14	7.2	0.036	Sample out of collection reservoir
9/27/10	--	--	--	--	No pore water in reservoir for analysis
9/28/10	4:03 pm	69	7.8	0.59	Pore water composite container results; not off bag

Test Conditions = Dewatering Bag Test Started 9/21/10 at 10:40 am
mg/L = milligrams per liter
mg/min = milligrams per minute
NTU = Nephelometric Turbidity Unit
TSS = Total Suspended Solids

Table 5-2
CON-SED Water Released During Sediment Dewatering Bag Tests
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Water Volume Collected (gallons)	Comments
9/21/10 to 9/22/10 (Day 1)	9.0	Majority of water generated in first few hours of sediment dewatering (about 12:45 pm).
9/22/10 to 9/23/10 (Day 2)	1.6	--
9/23/10 to 9/24/10 (Day 3)	0.1	Water release from bag drastically dropped off between Days 2 and 3.
9/24/10 to 9/27/10 (Days 4 to 6)	0	No water in sediment dewatering bag reservoir on 9/27/10.
TOTAL	9.9	Some water losses occurred during bag filtering when water sprayed out and was not captured in reservoir.

Test started 9/21/10 at 10:40 am.

Table 5-3
CPC-SED Geotextile Bag Dewatering Test Results
Total Suspended Solids and Turbidity vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	TSS (mg/L)	Turbidity (NTU)	Estimated Average Solids Release Rate (mg/min)	Comments
9/21/10	3:30 pm	340	110	--	First flush out of reservoir before recirculation
9/21/10	4:45 pm	93	30	78.5	Sample collected off bag
9/22/10	11:45 am	53	24	0.26	Sample collected off bag
9/23/10	9:50 am	40	9	0.157	Sample collected off bag
9/24/10	12:30 pm	24	13	0.005	Collected out of sample reservoir
9/27/10	--	--	--	--	No pore water in reservoir for analysis
9/28/10	4:12 pm	6	37	0.01	Pore water composite container results; not off of bag

Test Conditions = Dewatering Bag Test Started 9/21/10 at 3:25 pm
mg/L = milligrams per liter
mg/min = milligrams per minute
NTU = Nephelometric Turbidity Unit
TSS = Total Suspended Solids

Table 5-4
CPC-SED Water Released During Sediment Dewatering Bag Tests
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Water Volume Collected (gallons)	Comments
9/21/10 (Day 1)	14.5	Approximately 14.5 gallons collected in reservoir before 4:30 pm.
9/22/10 (Day 2)	1.5	--
9/23/10 (Day 3)	1.5	--
9/24/10 (Day 4)	0.1	Through 11:45 am
9/24/10 to 9/27/10 (Days 4 to 6)	0	No water in sediment dewatering bag reservoir on 9/27/10. Readings on 9/24/10 started at about 11:45 am.
TOTAL	17.6	Some losses occurred during bag filling when water sprayed out of bag and was not captured in reservoir.

Test started 9/21/10 at 3:25 pm.

Table 5-5
DHC-SED Geotextile Bag Dewatering Test Results
Total Suspended Solids and Turbidity vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	TSS (mg/L)	Turbidity (NTU)	Estimated Average Solids Release (mg/min)	Comments
9/22/10	9:30 am	570	290	--	First flush out of reservoir before recirculation
9/22/10	10:30 am	79	53	76.7	Sample collected off bag
9/23/10	9:15 am	110	26	0.48	Sample collected off bag
9/24/10	11:30 am	32	23	0.008	Collected out of sample reservoir
9/27/10	--	--	--	--	No pore water in reservoir for analysis
9/28/10	4:10 pm	110	85	2.45	Pore water composite container results

Test Conditions = Dewatering Bag Test Started 9/22/10 at 9:15 am
mg/L = milligrams per liter
mg/min = milligrams per minute
NTU = Nephelometric Turbidity Unit
TSS = Total Suspended Solids

Table 5-6
DHC-SED Water Released During Sediment Dewatering Bag Tests
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Water Volume Collected (gallons)	Comments
9/22/10 (Day 1)	15.4	This water collected in first hour of dewatering.
9/23/10 (Day 2)	1.6	--
9/24/10 (Day 3)	.1	--
9/24/10 to 9/27/10 (Days 3 to 5)	0	No water in sediment dewatering bag reservoir on 9/27/10. Day 3 readings started at 11:30 am.
TOTAL	17	Some losses occurred during bag filling when water sprayed out of bag and was not captured in reservoir.

Test started 9/22/10 at 9:45 am.

Table 5-7
CON-SED Geotextile Bag Dewatering Test Results
Sediment Percent Solids and Paint Filter Test vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	Solid Content (%)	PFT (Pass/Fail)	Comments
9/21/10	5:40 pm	27	Pass	--
9/22/10	11:30 am	32	Pass	--
9/23/10	9:50 am	34	Pass	--
9/24/10	11:30 am	35	Pass	--
9/27/10	1:00 pm	37	Pass	--
9/29/10	11:35 am	36	Pass	Final Percent Solids and PFTs

Test Conditions = Dewatering Bag Test Started 9/21/10 at 10:40 am
Estimated Conditional Slurry Concentration = 10% solids
PFT = Paint Filter Test

Table 5-8
CPC-SED Geotextile Bag Dewatering Test Results
Sediment Percent Solids and Paint Filter Test vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	Solid Content (%)	PFT (Pass/Fail)	Comments
9/22/10	9:00 am	42	Pass	--
9/23/10	9:50 am	34	Pass	--
9/24/10	11:30 am	50	Pass	--
9/27/10	1:00 pm	51	Pass	--
9/29/10	11:45 am	49	Pass	Final Percent Solids and PFT

Test Conditions = Dewatering Bag Test Started 9/21/10 at 3:25 pm
Estimated Conditional Slurry Concentration = 8% solids
PFT = Paint Filter Test

Table 5-9
DHC-SED Geotextile Bag Dewatering Test Results
Sediment Percent Solids and Paint Filter Test vs. Time
Lockheed Martin Middle River Complex
Middle River, Maryland

Date	Time	Solid Content (%)	PFT (Pass/Fail)	Comments
9/22/10	4:30 pm	37	Fail	Only failure of all tests performed.
9/24/10	11:30 am	48	Pass	--
9/27/10	1:00 am	52	Pass	--
9/29/10	11:00 am	49	Pass	Final percent solids and PFTs

Test Conditions = Dewatering Bag Test Started 9/22/10 at 9:15 am
Estimated Conditional Slurry Concentration = 8% solids
PFT = Paint Filter Test

Table 5-10
Sediment Dewatering Tests
CON-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Total Suspended Solids (mg/L)	69	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
pH (Units)	7.8	--	--	6.5 to 9 units	5 to 9 units	--	--	--
Turbidity (NTU)	45.5	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
Metals								
Antimony	<10	<10	--	--	5.6	640	6	--
Arsenic	33	40	340	150	0.18	0.14	10	--
Beryllium	<1	<1	--	--	--	--	4	--
Cadmium	<2	<2	2.0	0.25	--	--	5	--
Chromium	12.5	<2	--	--	--	--	100	--
Copper	5.65	<2	--	--	--	1300	1000	--
Lead	<10	<10	65	2.5	--	--	15	--
Nickel	4.55	<2	470	52	610	4600	--	--
Selenium	21	37	--	5	170	4200	--	--
Silver*	<1.5	<1.5	3.2	--	--	--	100	--
Thallium	<20	<20	--	--	0.24	0.47	--	Organism consumption only
Zinc	24.5	<10	120	120	7400	2600	5000	Organism consumption only
Mercury	<0.2	<0.2	1.4	0.77	--	--	2	--
PCBs								
Aroclor 1016	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1221	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1232	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1242	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1248	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1254	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1260	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PCBs Total	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PAHs/SVOCs								
Acenaphthene	<10	<10	--	--	670	990	--	--
Acenaphthylene	<10	<10	--	--	--	--	--	No criteria
Anthracene	<10	<10	--	--	8300	4000	--	--
Benzo(a)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(a)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(b)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--

Table 5-10
Sediment Dewatering Tests
CON-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Benzo(g,h,i)perylene	<10	<10	--	--	--	--	--	No criteria
Benzo(k)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--
Chrysene	<10	<10	--	--	0.0038	0.018	--	--
Dibenzo(a,h)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Fluoranthene	<10	<10	--	--	130	140	--	--
Fluorene	<10	<10	--	--	1100	5300	--	--
Indeno(1,2,3-cd)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Naphthalene	<10	<10	--	--	--	--	--	No criteria
Phenanthrene	<10	<10	--	--	--	--	--	No criteria
Pyrene	<10	<10	--	--	830	4,000	--	--

*Criteria maximum concentration. The highest concentration of a material in surface water to which an aquatic community can be exposed briefly without adverse effect.
AWQC = Ambient Water Quality Criteria
CCC = Criteria Continuous Concentration (Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.
CMC = Criteria Maximum Concentration
MCL = Maximum Contaminant Level
ug/L = micrograms per liter
mg/L = milligrams per liter
NTU = Nephelometric Turbidity Unit
PCBs = Polychlorinated Biphenyls
PAHs = Polyaromatic Hydrocarbons
SVOCs = Semivolatile Organic Compounds
USEPA = United States Environmental Protection Agency

Table 5-11
Sediment Dewatering Tests
CPC-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Total Suspended Solids (mg/L)	6	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
pH (Units)	7.71	--	--	6.5 to 9 units	5 to 9 units	--	--	--
Turbidity (NTU)	37	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
Metals								
Antimony	<10	<10	--	--	5.6	640	6	--
Arsenic	48	30	340	150	0.18	0.14	10	--
Beryllium	<1	<1	--	--	--	--	4	--
Cadmium	13	2.2	2.0	0.25	--	--	5	--
Chromium	78	<2	--	--	--	--	100	--
Copper	8.8	<2	--	--	--	1300	1000	--
Lead	12	<10	65	2.5	--	--	15	--
Nickel	5.4	3.2	470	52	610	4600	--	--
Selenium	15	19	--	5	170	4200	--	--
Silver*	<1.5	<1.5	3.2	--	--	--	100	--
Thallium	<20	20	--	--	0.24	0.47	--	Organism consumption only
Zinc	76	16	120	120	7400	2600	5000	Organism consumption only
Mercury	<0.2	<0.2	1.4	0.77	--	--	2	--
PCBs								
Aroclor 1016	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1221	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1232	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1242	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1248	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1254	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1260	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PCBs Total	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PAHs/SVOCs								
Acenaphthene	<10	<10	--	--	670	990	--	--
Acenaphthylene	<10	<10	--	--	--	--	--	No criteria
Anthracene	<10	<10	--	--	8300	4000	--	--
Benzo(a)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(a)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(b)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--

Table 5-11
Sediment Dewatering Tests
CPC-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Benzo(g,h,i)perylene	<10	<10	--	--	--	--	--	No criteria
Benzo(k)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--
Chrysene	<10	<10	--	--	0.0038	0.018	--	--
Dibenzo(a,h)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Fluoranthene	<10	<10	--	--	130	140	--	--
Fluorene	<10	<10	--	--	1100	5300	--	--
Indeno(1,2,3-cd)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Naphthalene	<10	<10	--	--	--	--	--	No criteria
Phenanthrene	<10	<10	--	--	--	--	--	No criteria
Pyrene	<10	<10	--	--	830	4,000	--	--

*Criteria maximum concentration. The highest concentration of a material in surface water to which an aquatic community can be exposed briefly without adverse effect.
AWQC = Ambient Water Quality Criteria
CCC = Criteria Continuous Concentration (Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.
CMC = Criteria Maximum Concentration
MCL = Maximum Contaminant Level
ug/L = micrograms per liter
mg/L = milligrams per liter
NTU = Nephelometric Turbidity Unit
PCBs = Polychlorinated Biphenyls
PAHs = Polyaromatic Hydrocarbons
SVOCs = Semivolatile Organic Compounds
USEPA = United States Environmental Protection Agency

Table 5-12
Sediment Dewatering Tests
DHC-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Total Suspended Solids (mg/L)	110	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
pH (Units)	7.39	--	--	6.5 to 9 units	5 to 9 units	--	--	--
Turbidity (NTU)	85	--	--	--	--	--	--	Narrative criteria only in Gold and Red books
Metals								
Antimony	<10	<10	--	--	5.6	640	6	--
Arsenic	21	24	340	150	0.18	0.14	10	--
Beryllium	<1	<1	--	--	--	--	4	--
Cadmium	2.6	<2	2.0	0.25	--	--	5	--
Chromium	33	<2	--	--	--	--	100	--
Copper	73	<2	--	--	--	1300	1000	--
Lead	14	<10	65	2.5	--	--	15	--
Nickel	6.7	2.2	470	52	610	4600	--	--
Selenium	14	28	--	5	170	4200	--	--
Silver*	<1.5	<1.5	3.2	--	--	--	100	--
Thallium	<20	<20	--	--	0.24	0.47	--	Organism consumption only
Zinc	84	10	120	120	7400	2600	5000	Organism consumption only
Mercury	<0.2	<0.2	1.4	0.77	--	--	2	--
PCBs								
Aroclor 1016	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1221	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1232	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1242	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1248	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1254	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
Aroclor 1260	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PCBs Total	<0.5	<0.5	--	0.014	0.000064	0.000064	0.5	--
PAHs/SVOCs								
Acenaphthene	<10	<10	--	--	670	990	--	--
Acenaphthylene	<10	<10	--	--	--	--	--	No criteria
Anthracene	<10	<10	--	--	8300	4000	--	--
Benzo(a)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(a)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Benzo(b)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--

Table 5-12
Sediment Dewatering Tests
DHC-SED Pore Water Analytical Results Compared to Ambient Water Quality Criteria
Lockheed Martin Middle River Complex
Middle River, Maryland

Parameter	Total Concentration Results (ug/L)	Dissolved Concentration Results (ug/L)	USEPA National Recommended Water Quality Criteria – AWQC Concentrations (ug/L)					Comments
			CMC (Acute) (ug/L)	CCC (Chronic) (ug/L)	Human Consumption of Water and Organisms (ug/L)	Human Consumption of Organisms Only (ug/L)	USEPA National Drinking Water Regulations - MCL (ug/L)	
Benzo(g,h,i)perylene	<10	<10	--	--	--	--	--	No criteria
Benzo(k)fluoranthene	<10	<10	--	--	0.0038	0.018	--	--
Chrysene	<10	<10	--	--	0.0038	0.018	--	--
Dibenzo(a,h)anthracene	<10	<10	--	--	0.0038	0.018	--	--
Fluoranthene	<10	<10	--	--	130	140	--	--
Fluorene	<10	<10	--	--	1100	5300	--	--
Indeno(1,2,3-cd)pyrene	<10	<10	--	--	0.0038	0.018	--	--
Naphthalene	<10	<10	--	--	--	--	--	No criteria
Phenanthrene	<10	<10	--	--	--	--	--	No criteria
Pyrene	<10	<10	--	--	830	4,000	--	--

*Criteria maximum concentration. The highest concentration of a material in surface water to which an aquatic community can be exposed briefly without adverse effect.
AWQC = Ambient Water Quality Criteria
CCC = Criteria Continuous Concentration (Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.
CMC = Criteria Maximum Concentration
MCL = Maximum Contaminant Level
ug/L = micrograms per liter
mg/L = milligrams per liter
NTU = Nephelometric Turbidity Unit
PCBs = Polychlorinated Biphenyls
PAHs = Polyaromatic Hydrocarbons
SVOCs = Semivolatile Organic Compounds
USEPA = United States Environmental Protection Agency

Appendix A

Photodocumentation of Sediment Collection Activities at CPC and DHC


View of Cow Pen Creek.JPG


Sediment Sample Extracted from 5 FT. Core Sampler.J...


Vibracore Sampling in Cow Pen Creek.JPG


Another View of Vibracore Sampling in Cow Pen Cre...


Another View of Cow Pen Creek Sediment Sampling...


View of Sediment in Collection Bucket.JPG


Sediment Sampling Barge in Dark Head Cove.JPG


Another View of Vibracore Sediment Sampler in Actio...


Vibracore Sediment Sampling.JPG


Sediment Sample in Collection Bucket DSCN0...


View of Cow Pen Creek Looking to the West.JPG


View of Cow Pen Creek Looking to the East.JPG


Cleaning of Vibrcore Sampler After Sample Coll...


Sampling Barge Support Boat on Dark Head Cove.J...


Sampling Barge on Dark Head Cove.JPG


Sampling Barge Anchored on Dark Head Cove.JPG


Sediment Sample in Collection Bucket.JPG


Confluence Sediment Samplng Area.JPG


Vibracore Sediment Sampling in Confluence Ar...


Confluence Sampling Area-East View.JPG


Mobing Sediment Barge Before Sampling on Dark...


Vibrcore Sampling on Dark Head Cove.JPG


Dark Head Cove Sediment Samples in Buckets.JPG


More Dark Head Cove Sediment Samples.JPG


Extraction of Sediment Sample from 5 ft. Core Sa...


Cleaning of ZVibrcore Sampler on Dark Head Co...


More Dark Head Cove Sediment Sample.JPG


Pulling Core from Vibracore Sampler on Dark Head Co...


Extraction of sediment Sample from 5 ft. Core on...


Pouring Free liquid from 5 ft. Core Before Extracting Se...


Wenching Vibracore onto the Sediment Sampling Barge....


Prepping Vibracore Sampler forthe Collection of Anothe...


Cleaning Vibracore Sampler on Dark Head Cove.JPG


Lowering Vibrcore Sampler into Dark Head Cove to C...


Initial Vibracore Sediment Sampling on Dark Head C...

Appendix B

Shively Geotechnical Laboratory Data

Shively Geotechnical
A Division of Environmental Operations, Inc.

September 22, 2010
Project No. 6335

Robert Bessent
Tetra Tech, Inc.
1634 Eastport Plaza
Collinsville, Illinois 62234

Subject: Geotechnical Laboratory Testing
Sediment Dewatering Pre-Design
Chesapeake Bay Area

Dear Mr. Bessent:

Shively Geotechnical, a division of Environmental Operations, Inc. is pleased to present results of laboratory testing for material taken for the Sediment Dewatering Pre-Design project located in the Chesapeake Bay Area. Three samples were delivered to our laboratory by a representative of Tetra Tech, Inc., on September 1, 2010. Samples were submitted for gradation, moisture and organic determination, as well as Atterberg limit testing. Additionally, liquid limit was determined on two samples after being dried in the lab oven. Results can be found on the enclosed summary table and graphs.

Samples were tested in accordance with the following American Society for Testing and Materials (ASTM) procedures:

Particle Size Analysis	D 422
Moisture Content	D 2216
Organic Matter of Soils	D 2974
Liquid & Plastic Limits	D 4318

We appreciate the opportunity to be of service to Tetra Tech, Inc. Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

Shively Geotechnical,
A Division of Environmental Operations, Inc.

Janet M. May
Laboratory Services Manager

Attachments

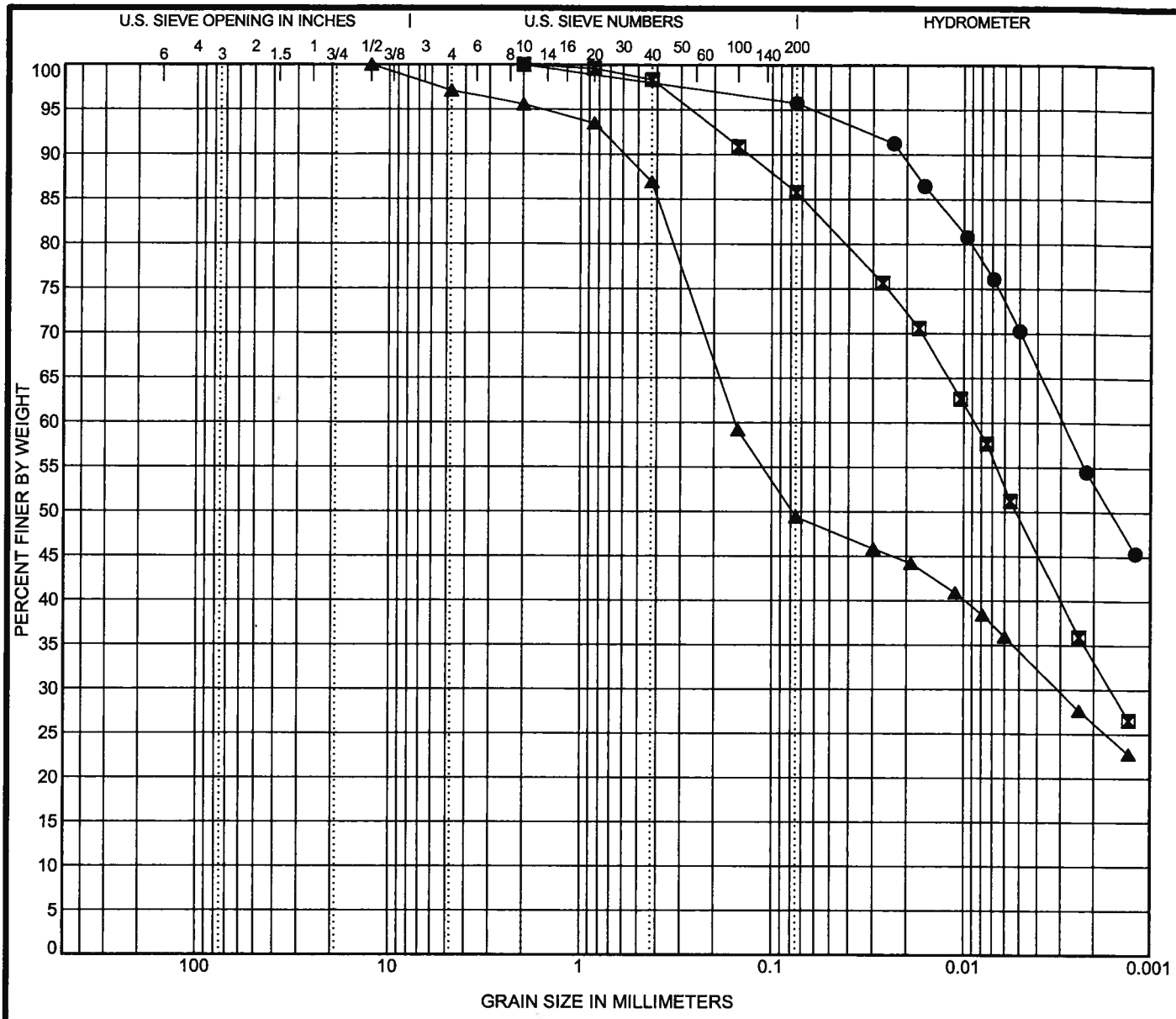
LABORATORY TEST RESULTS
FOR
TETRA TECH, INC.

SITE:
SEDIMENT DEWATERING PRE-DESIGN
CHESAPEAKE BAY AREA

Sample Designation	ASTM D 2216	ASTM D 4318				ASTM D 2974 Method C - 440°C
	Moisture Content, %	Liquid Limit (Prior to Oven Drying)	Liquid Limit (After Oven Drying*)	Plastic Limit	Plasticity Index	Organic Matter Content, %
CON-SED COMP.	179	82	70	36	46	4.6
CPC-SEC COMP.	130	69	60	35	34	6.4
DHC-SED COMP.	84	48	--	22	26	2.5

* Oven temperature set at 110 ± 5°C.

September 22, 2010
Project No. 6335
Shively Geotechnical,
a division of Environmental Operations, Inc.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● CON-SED COMP.	FAT CLAY(CH)	82	36	46		
⊠ CPC-SED COMP.	ELASTIC SILT (MH)	69	35	34		
▲ DHC-SED COMP.	CLAYEY SAND(SC)	48	22	26		

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● CON-SED COMP.	2	0.003			0.0	4.3	25.4	70.3
⊠ CPC-SED COMP.	2	0.009	0.002		0.0	14.2	36.6	49.2
▲ DHC-SED COMP.	12.5	0.155	0.003		2.9	47.7	15.1	34.3

Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

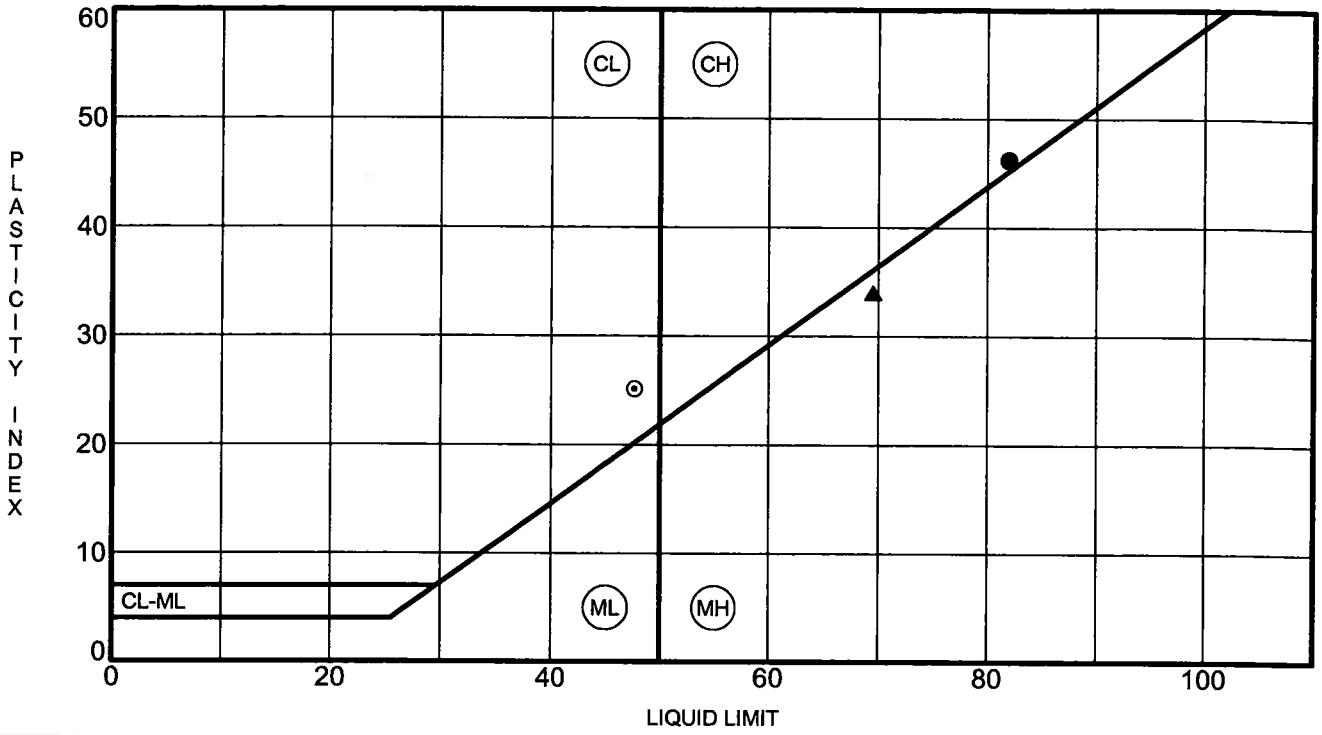
GRAIN SIZE DISTRIBUTION

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area

US GRAIN SIZE 6335 HYDRO CURVES.GPJ SHIVELY.GDT 9/10/10



	Specimen Identification		LL	PL	PI	Fines	Classification
●	CON-SED	Not Dried	82	36	46	96	FAT CLAY(CH)
	CON-SED	Oven Dried	70				
▲	CPC-SED	Not Dried	69	35	34	86	ELASTIC SILT(MH)
	CPC-SED	Oven Dried	60				
⊙	DHC-SED		48	22	26	49	CLAYEY SAND(SC)

Notes:

A soil is considered organic if the liquid limit after oven drying is less than 75% of the liquid limit of the original specimen determined before oven drying. For both samples, the ratio was greater than 75% as seen below. Therefore, both of the matierials are considered inorganic.

Oven Dried LL / Not Dried LL (70/82) = 0.85 for CON-SED

Oven Dried LL / Not Dried LL (60/69) = 0.87 for CPC-SED

Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

ATTERBERG LIMITS' RESULTS

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected MD

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

robert.bessent@tetratech.com

1			
CLIENT: TETRA TECH, INC	PROJECT NUMBER: T26422	P.O. NUMBER: →	MEANS SHIPPED: TE DELIVERY
ADDRESS: 1634 EASTPORT PLAZA DRIVE	PHONE NUMBER: 618-343-2352	FAX NUMBER: 618-345-1281	EMAIL ADDRESS:
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER: PAUL SMITH		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON: ROBERT BESSENT	SAMPLER'S SIGNATURE: [signature]		

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN #
LOGGED BY:
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	MOISTURE CONTENT - ASTM D2216	PARTICLE SIZE - ASTM D422	ORGANIC CONTENT - ASTM D2974	ATTERBURG LIMITS - ASTM D4318	LIQUID LIMIT OVEN DRIED			REMARKS
CON-SED COMP.	8/31/10	4:30 PM	RAB 1 SEP 10	✓	SED	1	✓	✓	✓	✓	✓			RIVER SEDIMENT
DHC-SED COMP.	8/31/10	5:10 PM		✓	SED	1	✓	✓	✓	✓				RIVER SEDIMENT
CPC-SED COMP.	8/31/10	5:20 PM		✓	SED	1	✓	✓	✓	✓	✓			RIVER SEDIMENT

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

6 NA

7					
RELINQUISHED BY: (SIGNATURE) Robert A Bessent	DATE 9/1/10	TIME 12:45	RECEIVED BY: [signature]	DATE 9/1/10	TIME 12:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY) Project # 6335

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

October 1, 2010
Project No. 6335

Shively Geotechnical
A Division of Environmental Operations, Inc.

Robert Bessent
Tetra Tech, Inc.
1634 Eastport Plaza
Collinsville, Illinois62234

Subject: Geotechnical Laboratory Testing
Sediment Dewatering Pre-Design Material
Sampled on September 21, & 22, 2010

Dear Mr. Bessent:

Shively Geotechnical, a division of Environmental Operations, Inc. is please to present results of laboratory testing for material taken for the Sediment Dewatering Pre-Design project located in the Chesapeake Bay Area. Three samples were delivered to our laboratory by a representative of Tetra Tech, Inc., on September 23, 2010. Samples were submitted for particle size and organic determination, as well as Atterberg limit testing. Results can be found on the enclosed summary table and graphs.

Samples were tested in accordance with the following American Society for Testing and Materials (ASTM) procedures:

Particle Size Analysis	D 422
Organic Matter of Soils	D 2974
Liquid & Plastic Limits	D 4318

We appreciate the opportunity to be of service to Tetra Tech, Inc. Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

Shively Geotechnical,
A Division of Environmental Operations, Inc.

Janet M. May
Laboratory Services Manager

Attachments

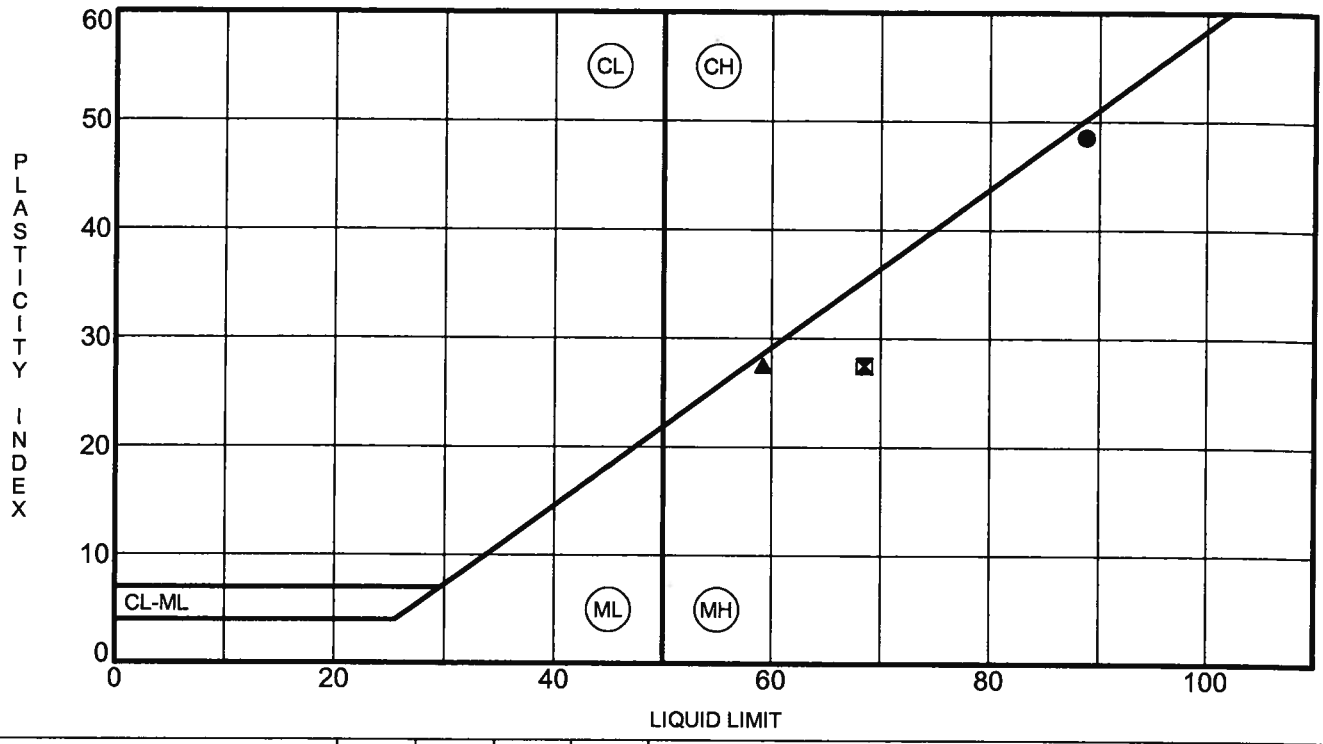
1530 South Second Street • Suite 200 • Saint Louis, Missouri 63104-4500 • 314-241-0900 • 314-436-2900 Fax
11 French Village Industrial Park • Post Office Box 1925 • Fairview Heights, Illinois 62208 • 618-398-1414 • 618-398-1492 Fax
www.environmentalops.com

LABORATORY TEST RESULTS
FOR
TETRA TECH, INC.

SITE:
SEDIMENT DEWATERING PRE-DESIGN
CHESAPEAKE BAY AREA

Sample Designation	ASTM D 4318			ASTM D 2974 Method C - 440°C
	Liquid Limit	Plastic Limit	Plasticity Index	Organic Matter Content, %
CON-SED COMP.	89	40	49	6.8
CPC-SEC COMP.	68	41	27	8.6
DHC-SED COMP.	59	32	27	5.2

October 1, 2010
Project No. 6335
Shively Geotechnical,
a division of Environmental Operations, Inc.



	Specimen Identification		LL	PL	PI	Fines	Classification
●	CON-SED	9/21/10	89	40	49	97	ELASTIC SILT(MH)
⊠	CPC-SED	9/21/10	68	41	27	81	ELASTIC SILT with SAND(MH)
▲	DHC-SED	9/22/10	59	32	27	81	ELASTIC SILT with SAND(MH)

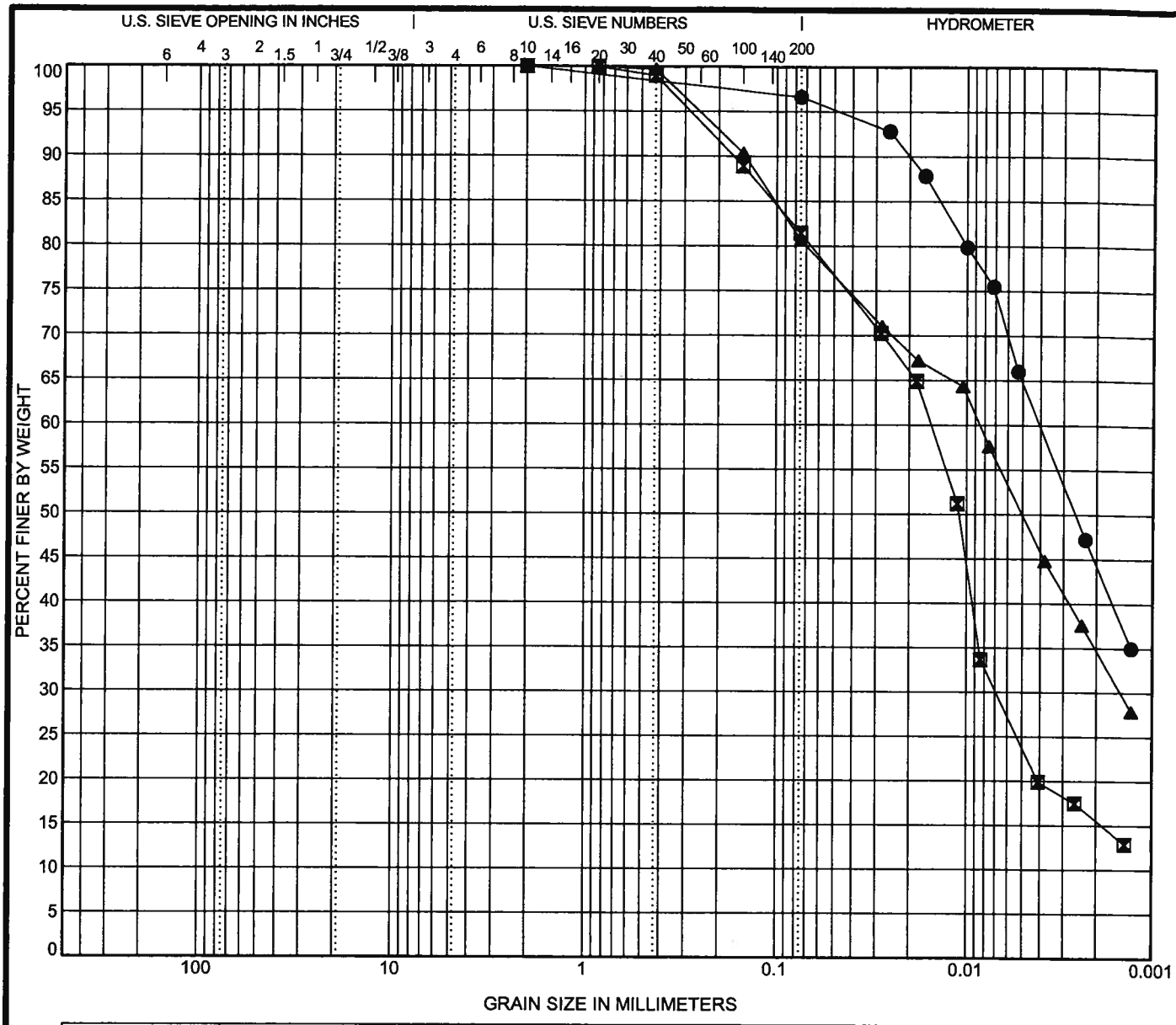
Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

ATTERBERG LIMITS' RESULTS

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification	LL	PL	PI	Cc	Cu
●	CON-SED	9/21/10	ELASTIC SILT(MH)	89	40	49		
⊠	CPC-SED	9/21/10	ELASTIC SILT with SAND(MH)	68	41	27		
▲	DHC-SED	9/22/10	ELASTIC SILT with SAND(MH)	59	32	27		

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	CON-SED	9/21/10	2	0.004			0.0	3.4	31.9	64.7
⊠	CPC-SED	9/21/10	2	0.015	0.007		0.0	18.5	57.8	23.7
▲	DHC-SED	9/22/10	2	0.009	0.001		0.0	19.3	30.8	49.9

Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

GRAIN SIZE DISTRIBUTION

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area

US GRAIN SIZE 6335 HYDRO CURVES.GPJ SHIVELY.GDT 10/1/10

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

robert.bessent@tetratech.com

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1					3 ANALYSIS REQUESTED								4 (FOR LAB USE ONLY)
CLIENT: LMC - TETRA TECH	PROJECT NUMBER: 26244	P.O. NUMBER	MEANS SHIPPED										LOGIN #
ADDRESS: 1635 EASTPORT PLAZA DR.	PHONE NUMBER: 618-343-2352	FAX NUMBER: 618-345-1281	EMAIL ADDRESS										LOGGED BY:
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER: BOB BESSENT		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WW/SL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS										LAB PROJ. #
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE: Robert A. Bessent												TEMPLATE:
													PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	PARTICLE SIZE ①	ORGANIC CONT ②	ATTERBERG LIMITS ③	REMARKS
CON-SED CONDITIONED SEDIMENT	9/21/10	1230 HRS	✓		SED	4	✓	✓	✓	SEDIMENT TO BAG
CPC-SED CONDITIONED SEDIMENT	9/21/10	1510 HRS	✓		SED	3	✓	✓	✓	〃 〃
DHC-SED CONDITIONED SEDIMENT	9/22/10	0930 HRS	✓		SED	3	✓	✓	✓	〃 〃

① ASTM D 422 PARTICLE SIZE = PS
② ASTM D 2974 ORGANIC CONTENT = OC
③ ASTM D 4318 ATTERBERG LIMITS = AL

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)

NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day

DATE DUE _____

RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	DATE	TIME		DATE	TIME
RELINQUISHED BY: (SIGNATURE)	9-23-10	1113	RECEIVED BY: Janet McKay	9/23/10	11:13
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____ °C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

October 15, 2010
Project No. 6335

Shively Geotechnical
A Division of Environmental Operations, Inc.

Robert Bessent
Tetra Tech, Inc.
1634 Eastport Plaza
Collinsville, Illinois 62234

RECEIVED OCT 18 2010

Subject: Geotechnical Laboratory Testing
Sediment Dewatering Pre-Design Material
Dewatered Sediment
Sampled on September 29 and 30, 2010

Dear Mr. Bessent:

Shively Geotechnical, a division of Environmental Operations, Inc. is pleased to present results of laboratory testing for material taken for the Sediment Dewatering Pre-Design project located in the Chesapeake Bay Area. Three samples were delivered to our laboratory by a representative of Tetra Tech, Inc., on October 1, 2010. Samples were submitted for particle size and organic determination, as well as Atterberg limit testing. Results can be found on the enclosed summary table and graphs.

Samples were tested in accordance with the following American Society for Testing and Materials (ASTM) procedures:

Particle Size Analysis	D 422
Organic Matter of Soils	D 2974
Liquid & Plastic Limits	D 4318

We appreciate the opportunity to be of service to Tetra Tech, Inc. Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

Shively Geotechnical,
A Division of Environmental Operations, Inc.

Janet M. May
Laboratory Services Manager

Attachments

1530 South Second Street • Suite 200 • Saint Louis, Missouri 63104-4500 • 314-241-0900 • 314-436-2900 Fax
11 French Village Industrial Park • Post Office Box 1925 • Fairview Heights, Illinois 62208 • 618-398-1414 • 618-398-1492 Fax
www.environmentalops.com

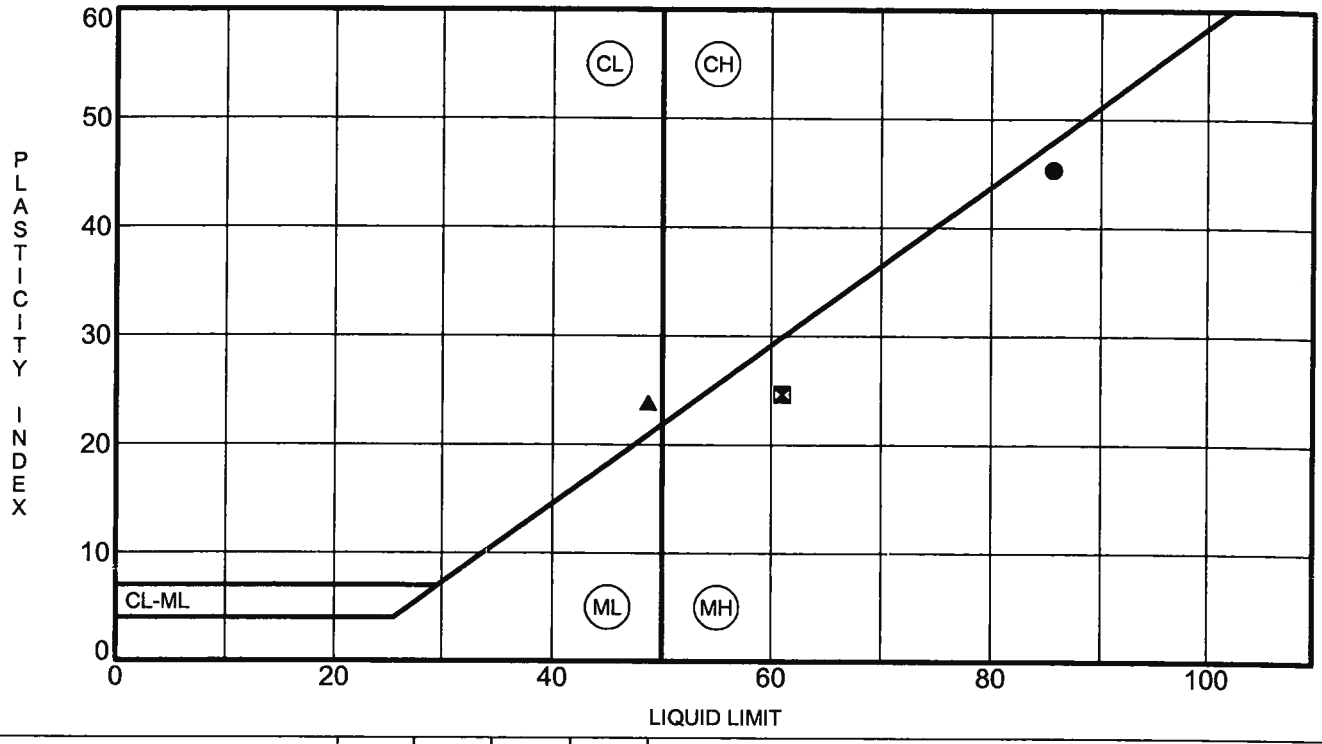
LABORATORY TEST RESULTS
FOR
TETRA TECH, INC.

SITE:
SEDIMENT DEWATERING PRE-DESIGN
CHESAPEAKE BAY AREA

DEWATERED SEDIMENT
DATES SAMPLED: SEPTEMBER 29 & 30, 2010

Sample Designation	ASTM D 4318			ASTM D 2974 Method C - 440°C
	Liquid Limit	Plastic Limit	Plasticity Index	Organic Matter Content, %
CON-SED COMP.	86	40	46	6.1
CPC-SEC COMP.	61	36	25	7.0
DHC-SED COMP.	49	25	24	3.1

October 15, 2010
Project No. 6335
Shively Geotechnical,
a division of Environmental Operations, Inc.



	Specimen Identification		LL	PL	PI	Fines	Classification
●	**CON-SED**	**9/29/10**	**86**	**40**	**46**	**97**	**ELASTIC SILT(MH)**
⊠	**CPC-SED**	**9/30/10**	**61**	**36**	**25**	**77**	**ELASTIC SILT with SAND(MH)**
▲	**DHC-SED**	**9/30/10**	**49**	**25**	**24**	**66**	**SANDY LEAN CLAY(CL)**

Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

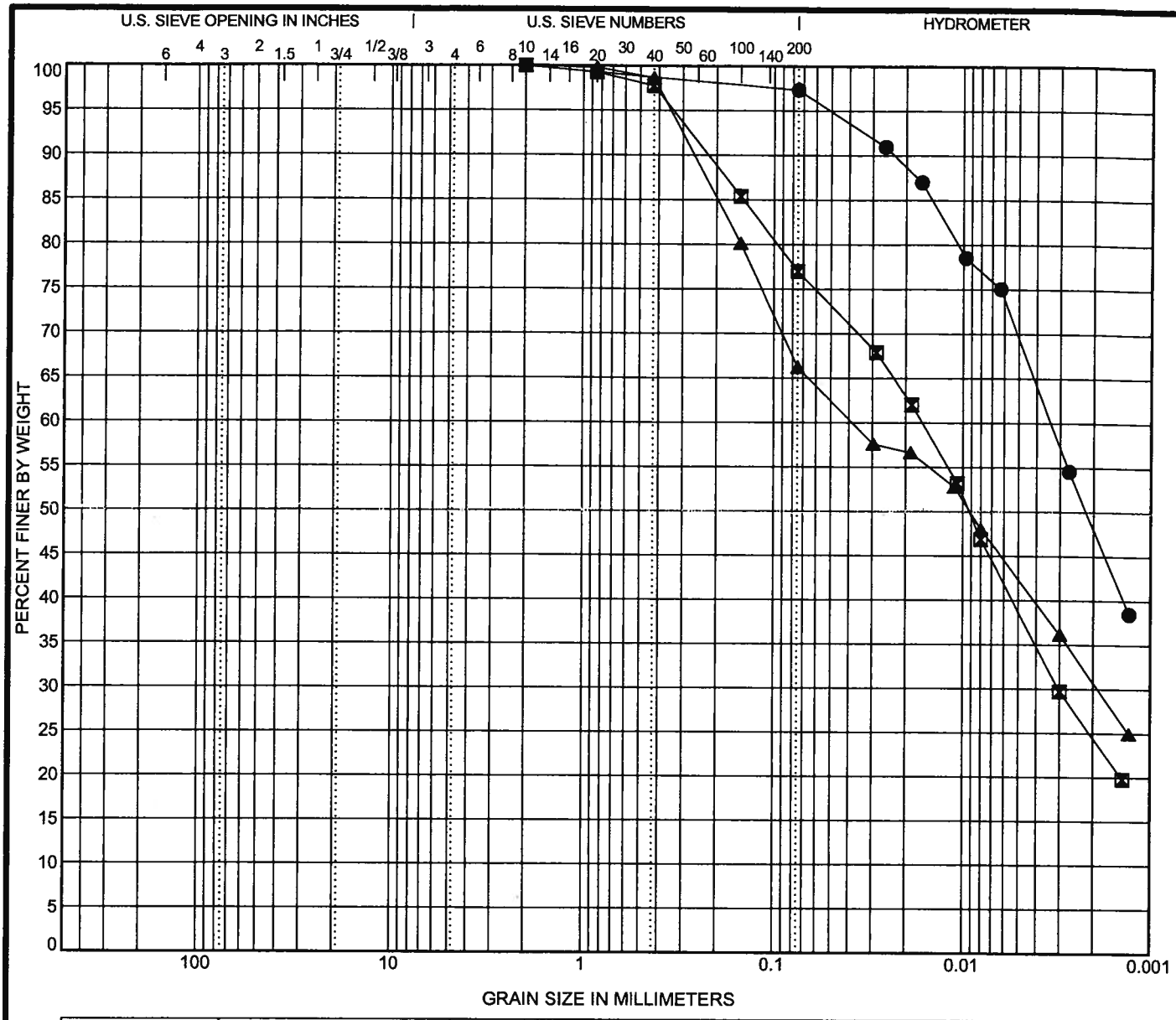
ATTERBERG LIMITS' RESULTS

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area

US ATTERBERG LIMITS 6335 HYDRO CURVES.GPJ SHIVELY.GDT 10/15/10



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification	LL	PL	PI	Cc	Cu
●	CON-SED	9/29/10	ELASTIC SILT(MH)	86	40	46		
⊠	CPC-SED	9/30/10	ELASTIC SILT with SAND(MH)	61	36	25		
▲	DHC-SED	9/30/10	SANDY LEAN CLAY(CL)	49	25	24		

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	CON-SED	9/29/10	2	0.003			0.0	2.7	27.9	69.5
⊠	CPC-SED	9/30/10	2	0.016	0.003		0.0	23.0	38.4	38.7
▲	DHC-SED	9/30/10	2	0.038	0.002		0.0	33.8	23.9	42.3

Shively Geotechnical
A Division of Environmental Operations, Inc.
Missouri (314) 241-0900
Illinois (618) 398-1414

GRAIN SIZE DISTRIBUTION

Project Number: 6335

Project: Sediment Dewatering Pre-Design

Location: Chesapeake Bay Area

US GRAIN SIZE 6335 HYDRO CURVES.GPJ SHIVELY.GDT 10/15/10

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

robert.bessent@tetratech.com

1 CLIENT	PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED
TETRA TECH	26244	—	
ADDRESS 1634 EASTPORT PLAZA DR.	PHONE NUMBER 618-343-2352	FAX NUMBER —	EMAIL ADDRESS
CITY STATE ZIP COLLINSVILLE, IL 62234	SAMPLER		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON BOB BESSENT	SAMPLER'S SIGNATURE		

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	3 ANALYSIS REQUESTED: UNCONSOLIDATED	COMPRESSION TESTS	ORGANIC CONTENT	PARTICLE SIZE	ATTERBERG LIMITS	REMARKS
CON-SED UNTREATED SEDIMENT	9/29/10	—	—	—	SED	1	✓					
CRC-SED " "	9/29/10	—	—	—	SED	1	✓					
DNC-SED " "	9/29/10	—	—	—	SED	1	✓					
CON-SED DEWATERED SEDIMENT	9/29/10				SED	1			✓	✓	✓	
CRC-SED " "	9/30/10				SED	1			✓	✓	✓	
DNC-SED " "	9/30/10				SED	1			✓	✓	✓	

4 (FOR LAB USE ONLY)
LOGIN # _____
LOGGED BY: _____
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE) Robert Bessent	10/1/10	1325	Janet McMay	10/1/10	13:25
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

November 4, 2010
Project No. 6335

Shively Geotechnical
A Division of Environmental Operations, Inc.

Robert Bessent
Tetra Tech, Inc.
1634 Eastport Plaza
Collinsville, Illinois 62234

Subject: Geotechnical Laboratory Testing
Sediment Dewatering Pre-Design Material
Molded Cylinder Mixture Specimens

Dear Mr. Bessent:

Shively Geotechnical, a division of Environmental Operations, Inc. is pleased to present results of laboratory testing for material taken for the Sediment Dewatering Pre-Design project located in the Chesapeake Bay Area. One hundred and fifty-two molded specimens were delivered to our laboratory by representatives of Tetra Tech, Inc., on September 23, 2010. Samples were submitted for unconfined compressive strength testing

Samples were tested under the guidance of the following American Society for Testing and Materials (ASTM) procedures:

Unconfined Compressive Strength of Molded Cylinders	D 1633
Water (Moisture) Content	D 2216
Density (Unit Weight) of Soil Specimens	D 7263

Specimens for compressive strength testing were formed by others in 2-inch by 4-inch cylindrical molds. Upon removal of molds, it was discovered that the samples contained substantial voids, especially the part of the specimen in bottom portion of mold. It was agreed that only the top would be tested and a correction factor would be applied accordingly.

Based on our experience and observation of the specimens, we elected not to perform strength tests of specimens that appeared too soft and not suitable for strength testing. Upon request by Tetra Tech, unit weight and moisture content testing was ran only on specimens that had strength testing performed. Results can be found on the attached summary tables.

We appreciate the opportunity to be of service to Tetra Tech, Inc. Please let us know if you have any questions or if we can be of further assistance.

Sincerely,

Shively Geotechnical,
a Division of Environmental Operations, Inc.

Janet M. May
Laboratory Services Manager

Attachments

Sediment Project

Laboratory Data for Soil/Cement Specimens

Specimen ID	Age, As Tested (Days)	Diameter, (Inches)	Height, (Inches)	Area, (Sq. In.)	Max Load, (lbs)	Strength, (psi)	Corrected Strength, (psi)	Dry Unit Weight, (pcf)	Moisture Content, (%)
CS-FA-D1-3	7	2.00	2.44	3.14	2.3	0.7	0.8	27.5	171.3
CS-FA-D2-3	7	2.00	2.34	3.14	7.8	2.5	2.7	29.4	155.5
CS-FA-D3-3	7	2.00	2.34	3.14	2.9	0.9	1.0	36.1	128.5
CS-KD-D1-3	7	2.00	2.38	3.14	1.0	<DL	<DL	27.5	182.9
CS-KD-D2-3	7	2.00	2.38	3.14	1.4	<DL	<DL	27.9	170.7
CS-KD-D3-3					NT				
CS-L-D1-3					NT				
CS-L-D2-3					NT				
CS-L-D3-3					NT				
CS-SL-D2-3	7	2.00	2.38	3.14	3.5	1.1	1.2	30.9	145.6
CS-PC-D1-3					NT				
CS-PC-D2-3					NT				
CS-PC-D3-3	7	2.00	2.34	3.14	16.6	5.3	5.8	35.6	125.3
CPC-FA-D1-3					NT				
CPC-FA-D2-3					NT				
CPC-FA-D3-3	7	2.00	2.38	3.14	6.8	2.2	2.4	49.8	76.5
CPC-KD-D1-3					NT				
CPC-KD-D2-3					NT				
CPC-KD-D3-3					NT				
CPC-PC-D1-3	7	2.00	2.34	3.14	1.2	<DL	<DL	45.6	95.5
CPC-PC-D2-3	7	2.00	2.38	3.14	3.4	1.1	1.2	47.4	87.8
CPC-PC-D3-3	7	2.00	2.38	3.14	13.5	4.3	4.7	50.2	78.8
CPC-SL-D1-3	7	2.00	2.38	3.14	5.7	1.8	2.0	44.1	92.3
CPC-SL-D2-3	7	2.00	2.34	3.14	6.3	2.0	2.2	46.4	86.7
CPC-SL-D3-3	7	2.00	2.34	3.14	9.6	3.1	3.4	51.8	75.0
DHC-FA-D1-3					NT				
DHC-FA-D2-3					NT				
DHC-FA-D3-3	7	2.00	2.34	3.14	5.5	1.8	1.9	49.4	81.7
DHC-KD-D1-3					NT				
DHC-KD-D2-3					NT				
DHC-KD-D3-3					NT				
DHC-PC-D1-3	7	2.00	2.38	3.14	1.9	<DL	<DL	46.5	91.4
DHC-PC-D2-3	7	2.00	2.38	3.14	3.7	1.2	1.3	42.8	98.8
DHC-PC-D3-3	7	2.00	2.38	3.14	17.0	5.4	5.9	49.4	78.7
DHC-SL-D1-3	7	2.00	2.34	3.14	3.4	1.1	1.2	48.6	84.2
DHC-SL-D2-3	7	2.00	2.38	3.14	3.9	1.2	1.4	49.2	80.9
DHC-SL-D3-3	7	2.00	2.38	3.14	5.0	1.6	1.8	48.9	77.7

<DL - Less than Detection Limit
NT - No Test - Unsuitable for Testing.
Note: DL set at 2 pounds

Sediment Project

Laboratory Data for Soil/Cement Specimens

Specimen ID	Age, As Tested (Days)	Diameter, (Inches)	Height, (Inches)	Area, (Sq. In.)	Max Load, (lbs)	Strength, (psi)	Corrected Strength, (psi)	Dry Unit Weight, (pcf)	Moisture Content, (%)
CS-FA-D1-7					NT				
CS-FA-D2-7	14	2.00	2.34	3.14	3.0	1.0	1.1	30.9	154.0
CS-FA-D3-7	14	2.00	2.38	3.14	4.2	1.3	1.5	35.5	130.7
CS-KD-D1-7	14	2.00	2.38	3.14	1.0	<DL	<DL	25.2	183.9
CS-KD-D2-7	14	2.00	2.38	3.14	1.3	<DL	<DL	27.7	173.9
CS-KD-D3-7					NT				
CS-L-D1-7					NT				
CS-L-D2-7					NT				
CS-L-D3-7					NT				
CS-SL-D2-7	14	2.00	2.38	3.14	3.8	1.2	1.3	31.4	148.1
CS-PC-D1-7	14	2.00	2.34	3.14	1.5	<DL	<DL	28.2	172.1
CS-PC-D2-7	14	2.00	2.34	3.14	6.0	1.9	2.1	31.1	154.8
CS-PC-D3-7	14	2.00	2.38	3.14	28.2	9.0	9.9	35.8	127.2
CPC-FA-D1-7					NT				
CPC-FA-D2-7					NT				
CPC-FA-D3-7	14	2.00	2.34	3.14	7.1	2.3	2.5	49.6	78.9
CPC-KD-D1-7					NT				
CPC-KD-D2-7					NT				
CPC-KD-D3-7					NT				
CPC-PC-D1-7	14	2.00	2.34	3.14	0.9	<DL	<DL	43.9	99.8
CPC-PC-D2-7	14	2.00	2.34	3.14	3.6	1.1	1.3	48.0	85.7
CPC-PC-D3-7	14	2.00	2.34	3.14	13.2	4.2	4.6	49.6	81.0
CPC-SL-D1-7	14	2.00	2.31	3.14	5.9	1.9	2.1	45.9	91.5
CPC-SL-D2-7	14	2.00	2.38	3.14	6.8	2.2	2.4	46.8	88.7
CPC-SL-D3-7	14	2.00	2.38	3.14	9.3	3.0	3.3	50.3	76.3
DHC-FA-D1-7					NT				
DHC-FA-D2-7					NT				
DHC-FA-D3-7	14	2.00	2.34	3.14	6.9	2.2	2.4	49.5	80.8
DHC-KD-D1-7					NT				
DHC-KD-D2-7					NT				
DHC-KD-D3-7					NT				
DHC-PC-D1-7	14	2.00	2.31	3.14	1.7	<DL	<DL	47.9	91.3
DHC-PC-D2-7	14	2.00	2.34	3.14	4.6	1.5	1.6	44.3	98.7
DHC-PC-D3-7	14	2.00	2.34	3.14	14.3	4.6	5.0	49.1	78.1
DHC-SL-D1-7	14	2.00	2.34	3.14	2.3	0.7	0.8	47.8	84.6
DHC-SL-D2-7	14	2.00	2.34	3.14	3.4	1.1	1.2	48.5	81.8
DHC-SL-D3-7	14	2.00	2.34	3.14	5.1	1.6	1.8	49.2	79.0

<DL - Less than Detection Limit
NT - No Test - Unsuitable for Testing.
Note: DL set at 2 pounds

Sediment Project

Laboratory Data for Soil/Cement Specimens

Specimen ID	Age, As Tested (Days)	Diameter, Inches	Height, Inches	Area, (Sq. In.)	Max Load, Lbs	Strength, psi	Corrected Strength, (psi)	Dry Unit Weight, pcf	Moisture Content
CS-FA-D1-14	21	2.00	2.34	3.14	1.2	<DL	<DL	27.1	172.4
CS-FA-D2-14	21	2.00	2.34	3.14	3.2	1.0	1.1	31.0	153.2
CS-FA-D3-14	21	2.00	2.34	3.14	5.8	1.8	2.0	35.9	129.6
CS-KD-D1-14	21	2.00	2.34	3.14	1.5	<DL	<DL	26.8	185.2
CS-KD-D2-14	21	2.00	2.38	3.14	1.7	<DL	<DL	27.9	174.4
CS-KD-D3-14	21	2.00	2.34	3.14	1.5	<DL	<DL	31.0	159.3
CS-L-D1-14					NT				
CS-L-D2-14					NT				
CS-L-D3-14					NT				
CS-SL-D2-14	21	2.00	2.41	3.14	3.6	1.1	1.3	32.9	147.8
CS-PC-D1-14					NT				
CS-PC-D2-14	21	2.00	2.34	3.14	5.1	1.6	1.8	30.0	153.5
CS-PC-D3-14	21	2.00	2.34	3.14	32.1	10.2	11.2	35.6	125.6
CPC-FA-D1-14	21	2.00	2.34	3.14	2.5	0.8	0.9	43.6	99.3
CPC-FA-D2-14					NT				
CPC-FA-D3-14	21	2.00	2.34	3.14	9.7	3.1	3.4	50.1	78.7
CPC-KD-D1-14					NT				
CPC-KD-D2-14					NT				
CPC-KD-D3-14					NT				
CPC-PC-D1-14	21	2.00	2.34	3.14	0.4	<DL	<DL	44.7	96.3
CPC-PC-D2-14	21	2.00	2.34	3.14	3.4	1.1	1.2	47.5	86.5
CPC-PC-D3-14	21	2.00	2.34	3.14	15.5	4.9	5.4	49.8	79.3
CPC-SL-D1-14	21	2.00	2.34	3.14	6.2	2.0	2.2	48.8	81.0
CPC-SL-D2-14	21	2.00	2.38	3.14	6.5	2.1	2.3	46.1	87.3
CPC-SL-D3-14	21	2.00	2.34	3.14	11.7	3.7	4.1	52.4	75.0
DHC-FA-D1-14					NT				
DHC-FA-D2-14					NT				
DHC-FA-D3-14	21	2.00	2.344	3.14	7.9	2.5	2.8	49.1	80.6
DHC-KD-D1-14					NT				
DHC-KD-D2-14					NT				
DHC-KD-D3-14					NT				
DHC-PC-D1-14	21	2.00	2.34	3.14	1.1	<DL	<DL	43.1	90.3
DHC-PC-D2-14	21	2.00	2.34	3.14	5.0	1.6	1.8	43.9	98.0
DHC-PC-D3-14	21	2.00	2.34	3.14	23.0	7.3	8.1	49.8	76.7
DHC-SL-D1-14	21	2.00	2.34	3.14	2.8	0.9	1.0	47.0	85.1
DHC-SL-D2-14	21	2.00	2.34	3.14	4.1	1.3	1.4	49.6	81.1
DHC-SL-D3-14	21	2.00	2.34	3.14	6.8	2.2	2.4	46.5	76.1

<DL - Less than Detection Limit
NT - No Test - Unsuitable for Testing.
Note: DL set at 2 pounds

Sediment Project

Laboratory Data for Soil/Cement Specimens

Specimen ID	Age, As Tested (Days)	Diameter, Inches	Height, Inches	Area, (Sq. In.)	Max Load, Lbs	Strength, psi	Corrected Strength, (psi)	Dry Unit Weight, pcf	Moisture Content
CS-FA-D1-28	28	2.00	2.34	3.14	0.9	<DL	<DL	26.8	172.6
CS-FA-D2-28	28	2.00	2.34	3.14	1.9	<DL	<DL	29.0	153.5
CS-FA-D3-28	28	2.00	2.34	3.14	3.4	1.1	1.2	34.1	125.7
CS-KD-D1-28	28	2.00	2.38	3.14	0.7	<DL	<DL	24.8	183.3
CS-KD-D2-28	28	2.00	2.34	3.14	1.1	<DL	<DL	26.9	175.4
CS-KD-D3-28	28	2.00	2.34	3.14	0.7	<DL	<DL	29.4	162.3
CS-L-D1-28					NT				
CS-L-D2-28					NT				
CS-L-D3-28	28	2.00	2.34	3.14	0.8	<DL	<DL	35.1	125.7
CS-SL-D2-28	28	2.00	2.34	3.14	5.3	1.7	1.9	32.7	144.2
CS-PC-D1-28	28	2.00	2.34	3.14	1.3	<DL	<DL	28.1	169.3
CS-PC-D2-28	28	2.00	2.34	3.14	5.7	1.8	2.0	29.1	147.7
CS-PC-D3-28	28	2.00	2.34	3.14	23.8	7.6	8.3	34.0	125.9
CPC-FA-D1-28	28	2.00	2.31	3.14	2.5	0.8	0.9	42.5	93.9
CPC-FA-D2-28	28	2.00	2.34	3.14	2.4	0.8	0.8	44.1	90.5
CPC-FA-D3-28	28	2.00	2.34	3.14	9.6	3.1	3.4	48.7	76.5
CPC-KD-D1-28					NT				
CPC-KD-D2-28					NT				
CPC-KD-D3-28					NT				
CPC-PC-D1-28	28	2.00	2.34	3.14	1.8	<DL	<DL	42.4	94.9
CPC-PC-D2-28	28	2.00	2.34	3.14	4.7	1.5	1.6	47.1	87.3
CPC-PC-D3-28	28	2.00	2.31	3.14	15.6	5.0	5.5	49.2	80.2
CPC-SL-D1-28	28	2.00	2.38	3.14	5.2	1.7	1.8	42.9	92.0
CPC-SL-D2-28	28	2.00	2.34	3.14	7.4	2.4	2.6	46.4	86.5
CPC-SL-D3-28	28	2.00	2.34	3.14	9.9	3.2	3.5	49.6	76.0
DHC-FA-D1-28	28	2.00	2.34	3.14	0.9	<DL	<DL	37.4	99.7
DHC-FA-D2-28	28	2.00	2.38	3.14	1.6	<DL	<DL	38.7	96.3
DHC-FA-D3-28	28	2.00	2.34	3.14	8.8	2.8	3.1	49.1	79.1
DHC-KD-D1-28					NT				
DHC-KD-D2-28					NT				
DHC-KD-D3-28					NT				
DHC-PC-D1-28					NT				
DHC-PC-D2-28	28	2.00	2.34	3.14	5.5	1.8	1.9	44.0	95.5
DHC-PC-D3-28	28	2.00	2.34	3.14	19.0	6.0	6.7	49.9	78.1
DHC-SL-D1-28	28	2.00	2.34	3.14	4.4	1.4	1.5	47.2	81.3
DHC-SL-D2-28	28	2.00	2.38	3.14	4.5	1.4	1.6	49.1	80.4
DHC-SL-D3-28	28	2.00	2.34	3.14	6.8	2.2	2.4	50.0	77.7

<DL - Less than Detection Limit
NT - No Test - Unsuitable for Testing.
Note: DL set at 2 pounds

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

robert.bessent@tetratech.com

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1				
CLIENT: TETRA TECH	PROJECT NUMBER: 26244	P.O. NUMBER	MEANS SHIPPED	
ADDRESS: 1634 EASTPORT PLAZA DRIVE	PHONE NUMBER: 618-343-2352	FAX NUMBER	EMAIL ADDRESS	
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER: BOB BESSENT		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS	
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE: Robert A. Bessent			

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	3 ANALYSIS REQUESTED: UNCONFINED COMPRESSION TESTS	4 REMARKS (FOR LAB USE ONLY)
CON-SED CSS SPECIMENS	9/29/10	VARIOUS TIMES	NA	NA	SED	36	✓	DETAILS ON SEPARATE SHEET

LOGIN # _____
LOGGED BY: _____
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)

NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day

DATE DUE _____

RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	Robert A. Bessent	10/1/10	1330	[signature]	10/1/10	13:32
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

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State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

robert.bessent@tetratech.com

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1				3 ANALYSIS REQUESTED	4 (FOR LAB USE ONLY)
CLIENT: TETRA TECH	PROJECT NUMBER: 26244	P.O. NUMBER: —	MEANS SHIPPED: —		
ADDRESS: 1634 EAST PORT PLAZA DRIVE	PHONE NUMBER: 618-343-2352	FAX NUMBER: —	EMAIL ADDRESS: ✓		
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS		
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE				

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	UNCONFINED COMPRESSION TESTS						LOGIN # / LOGGED BY / LAB PROJ. # / TEMPLATE / PROJ. MGR.:	REMARKS
CPC-SED CSS SPECIMENS	9/30/10	VARIOUS TIMES	NA	NA	SED	36	✓							DETAILS ON SEPARATE SHEET

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	Robert A. Bessent	10/1/10	1327	Sarah McMary	10/1/10	13:25
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C.
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

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CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT	PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED
TETRA TECH	26244	–	
ADDRESS 1634 EAST PORT PLAZA DRIVE	PHONE NUMBER 618-343-2352	FAX NUMBER –	EMAIL ADDRESS robert.bessent@tetratech.com
CITY STATE ZIP COLLINSVILLE, IL 62234	SAMPLER		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON BOB BESSENT	SAMPLER'S SIGNATURE		

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	3 ANALYSIS REQUESTED: UNCONFINED COMPRESSION TESTS	4 REMARKS
DMC-SED CSS SPECIMENS	9/30/10	VARIOUS TIMES	NA	NA	SED	36	✓	DETAILS ON SEPARATE SHEET

(FOR LAB USE ONLY)
LOGIN # _____
LOGGED BY: _____
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE) Robert A. Bessent	10/1/10	1325	[signature]	10/1/10	13:25
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT	PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED
TETRA TECH	26244	—	
ADDRESS 1634 EASTPORT PLAZA DR.	PHONE NUMBER 618-343-2352	FAX NUMBER —	EMAIL ADDRESS robert.bessent@tetratech.com
CITY STATE ZIP COLLINSVILLE, IL 62234	SAMPLER		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON BOB BESSENT	SAMPLER'S SIGNATURE		

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	3 ANALYSIS REQUESTED: UNCONSOLIDATED	COMPRESSION TESTS	ORGANIC CONTENT	PARTICLE SIZE	ATTERBERG LIMITS	4 REMARKS
CON-SED UNTREATED SEDIMENT	9/29/10	—	—	—	SED	1	✓					
CRC-SED " "	9/29/10	—	—	—	SED	1	✓					
DHC-SED " "	9/29/10	—	—	—	SED	1	✓					
CON-SED DEWATERED SEDIMENT	9/29/10				SED	1			✓	✓	✓	
CRC-SED " "	9/30/10				SED	1			✓	✓	✓	
DHC-SED " "	9/30/10				SED	1			✓	✓	✓	

LOGIN # _____
LOGGED BY: _____
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7	DATE	TIME		DATE	TIME
RELINQUISHED BY: (SIGNATURE) Robert D. Bessent	10/1/10	1325	RECEIVED BY: Janet Murray	10/1/10	13:25
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

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Florissant, MO 63033
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CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

5 OF 5

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

robert.bessent@tetratech.com

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: TETRA TECH	PROJECT NUMBER: 26244	P.O. NUMBER:	MEANS SHIPPED:
ADDRESS: 1634 EASTPORT PLAZA DR	PHONE NUMBER: 618-343-2352	FAX NUMBER:	EMAIL ADDRESS:
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER:		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE:		

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # _____
LOGGED BY: _____
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	UNCONFINED	COMPRESSION	TESTS					REMARKS
CON-SED CS-SL-D2-3	9/30/10	–	–	–	SED	1	✓							
CS-SL-D2-7	9/30/10	–	–	–	"	1	✓							
CS-SL-D2-14	9/30/10	–	–	–	"	1	✓							
CS-SL-D2-28	9/30/10	–	–	–	"	1	✓							

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
Robert A Bessent	10/1/10	1325	Jane McMay	10/1/10	13:25
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

PAGE ____ OF ____

Appendix C

PDC Laboratories, Inc. Analytical Data

Preliminary Moisture contents of Raw Sediments out of Buckets

PDC Laboratories, Inc.
3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 EASTPORT PLAZA DRIVE

COLLINSVILLE, IL 62234
Attn : Mr. Paul Smith

Date Received : 09/01/10 15:31
Report Date 09/08/10
Customer # : 276639
P.O. Number : T26422
Facility :

Sample No: **10098081-1** Collect Date **08/31/10 16:25**
Client ID : **CON-SED-2** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	35.7% 35%	65 %	09/03/10 17:00	AV	

Sample No: **10098081-2** Collect Date **08/31/10 16:15**
Client ID : **CON-SED-5** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	36%	64 %	09/03/10 17:00	AV	

Sample No: **10098081-3** Collect Date **08/31/10 16:30**
Client ID : **CON-SED-7** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	36%	64 %	09/03/10 17:00	AV	

Sample No: **10098081-4** Collect Date **08/31/10 16:50**
Client ID : **DHC-SED-2** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	45	55 %	09/03/10 17:00	AV	

Sample No: **10098081-5** Collect Date **08/31/10 16:45**
Client ID : **DHC-SED-3** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	47	53 %	09/03/10 17:00	AV	

Sample No: **10098081-6** Collect Date **08/31/10 16:40**
Client ID : **DHC-SED-5** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	46.7 46	58 %	09/03/10 17:00	AV	

10098081

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Laboratory Results

TETRA TECH
1634 EASTPORT PLAZA DRIVE

COLLINSVILLE, IL 62234
Attn : Mr. Paul Smith

Date Received : 09/01/10 15:31
Report Date 09/08/10
Customer # : 276639
P.O. Number : T26422
Facility :

Sample No: **10098081-7** Collect Date **08/31/10 16:55**
Client ID : **CPC-SED-2** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	44	56 %	09/03/10 17:00	AV	

Sample No: **10098081-8** Collect Date **08/31/10 17:00**
Client ID : **CPC-SED-5** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	44.3 45	55 %	09/03/10 17:00	AV	

Sample No: **10098081-9** Collect Date **08/31/10 17:10**
Client ID : **CPC-SED-7** Site : Locator :

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	44	56 %	09/03/10 17:00	AV	

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NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)
SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program
STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

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Florissant, MO 63033
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Fax (314) 432-4977

State where samples collected MD

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: TetraTech
ADDRESS: 1634 Eastchester Road Drive
CITY, STATE, ZIP: Collegeville, PA 19426
SAMPLED BY: CEB, Pat Scott

PROJECT NUMBER: T26422
P.O. NUMBER: →
MEANS SHIPPED:
PHONE NUMBER: 610-363-2352
FAX NUMBER: 610-345-1281
EMAIL ADDRESS: robert.pesch@tetratech.com
PROJECT NAME: Pat Scott
SAMPLER: [signature]

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
L'CHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098081
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	MOISTURE CONTENT	REMARKS
CON-SED-2	8/31/10	4:25 PM	✓		SED	1	✓	ASTM D 2216
CON-SED-5	"	4:15 PM	✓		"	1	✓	
CON-SED-7	"	4:30 PM	✓		"	1	✓	
DHC-SED-2	"	4:50 PM	✓		"	1	✓	
DHC-SED-3	"	4:45 PM	✓		"	1	✓	
DHC-SED-5	"	4:40 PM	✓		"	1	✓	
CPC-SED-2	"	4:55 PM	✓		"	1	✓	
CPC-SED-5	"	5:00 PM	✓		"	1	✓	
CPC-SED-7	"	5:10 PM	✓		"	1	✓	

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
(NORMAL (8-10 Bus. Days)) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: (E-MAIL) FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

The sample temperature will be measured upon receipt at the lab. By initiating this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initiating this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____
6

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	9/1/10	5:50	Heather Earhart	9/1/10	0845
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	3.1 °C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S)	Y OR N
(EXCLUDES TYPICAL FIELD PARAMETERS)	
DATE AND TME TAKEN FROM SAMPLE BOTTOM	

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

Moisture Contents of Sediment Conditioning Conformato Tests

PDC Laboratories, Inc.

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ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/21/10 11:48
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098501-1** Collect Date **09/20/10 16:45**
Client ID : **CON-SED LOW** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	44	56 %	09/23/10 12:00	AV	

Sample No: **10098501-2** Collect Date **09/20/10 16:50**
Client ID : **CON-SED MED** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	36	64 %	09/23/10 12:00	AV	

Sample No: **10098501-3** Collect Date **09/20/10 16:55**
Client ID : **CON-SED HIGH** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	35	65 %	09/23/10 12:00	AV	

Sample No: **10098501-4** Collect Date **09/20/10 16:55**
Client ID : **CPC-SED LOW** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	45	55 %	09/23/10 12:00	AV	

Sample No: **10098501-5** Collect Date **09/20/10 17:00**
Client ID : **CPC-SED MED** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	46	54 %	09/23/10 12:00	AV	

Sample No: **10098501-6** Collect Date **09/20/10 17:05**
Client ID : **CPC-SED HIGH** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	43	57 %	09/23/10 12:00	AV	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/21/10 11:48
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098501-7** Collect Date **09/20/10 17:10**
Client ID : **DHC-SED LOW** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		58 %	09/23/10 12:00	AV	

Sample No: **10098501-8** Collect Date **09/20/10 17:10**
Client ID : **DHC-SED MED** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		57 %	09/23/10 12:00	AV	

Sample No: **10098501-9** Collect Date **09/20/10 17:10**
Client ID : **DHC-SED HIGH** Site : Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		57 %	09/23/10 12:00	AV	

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State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

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Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech, Inc.
ADDRESS: 1634 Eastport Plaza Dr.
CITY STATE ZIP: Collinsville, IL 62234
CONTACT PERSON: Bob Bessett / Mike Smith

PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED
26244		
PHONE NUMBER	**FAX NUMBER**	**EMAIL ADDRESS**
618-343-2352	618-345-1200	robert.bessett@tetratech.com

SAMPLER: Bob Bessett
SIGNATURE: [illegible]

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
L'CHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098501
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	MOISTURE CONTENT							REMARKS
TEST 1: CON-SED LOW (POLY DOSE)	9/20/10	4:45 PM	✓		SED	1	✓							
TEST 2: CON-SED MED	"	4:50	✓		"	1	✓							
TEST 3: CON-SED HIGH	"	4:55	✓		"	1	✓							
TEST 4: CPC-SED ~~[illegible]~~ LOW RDG 21 SEP 10	"	4:55	✓		"	1	✓							
TEST 5: CPC-SED MED	"	5:00	✓		"	1	✓							
TEST 6: CPC-SED HIGH	"	5:05	✓		"	1	✓							
TEST 7: DHC-SED LOW	"	5:10	✓		"	1	✓							
TEST 8: DHC-SED MED	"	5:10	✓		"	1	✓							
TEST 9: DHC-SED HIGH	"	5:10	✓		"	1	✓							

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[illegible]	[illegible]	0945	Heather Earhart	9/21/10	09:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	____

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Amended 11/14/10

Sediment Conditioning Information Testing

PDC Laboratories, Inc.

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(314) 432-0550 - (800) 333-FAST(3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

pore water Turbs.

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/20/10 10:25
Report Date : 09/20/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098385-1** Collect Date **09/17/10 16:30**
Client ID : **TEST 1:CON-SED-LOW** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	4.6 NTU ✓	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-2** Collect Date **09/17/10 16:45**
Client ID : **TEST 2:CON-SED-MED** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	5.9 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-3** Collect Date **09/17/10 16:48**
Client ID : **TEST 3:CON-SED-HIGH** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	15 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-4** Collect Date **09/17/10 16:55**
Client ID : **TEST 4:CPC-SED-LOW** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	19 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-5** Collect Date **09/17/10 17:01**
Client ID : **TEST 5:CPC-SED-MED** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	18 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/20/10 10:25
Report Date : 09/20/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098385-6** Collect Date **09/17/10 17:08**
Client ID : **TEST 6:CPC-SED-HIGH** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	17 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-7** Collect Date **09/17/10 17:15**
Client ID : **TEST 7:DHC-SED-LOW** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	22 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-8** Collect Date **09/17/10 17:20**
Client ID : **TEST 8:DHC-SED-MED** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	24 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

Sample No: **10098385-9** Collect Date **09/17/10 17:23**
Client ID : **TEST 9:DHC-SED-HIGH** Site : Locator : **26422**

Parameter	Qualifier	Result	Analysis Date	Analyst
SM 2130B/EPA 180.1				
Turbidity	H	34 NTU	09/20/10 10:00	AV

H - Method Hold Time Exceeded

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/20/10 10:25
Report Date : 09/20/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

ACCREDITATIONS

NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

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CHAIN OF CUSTODY RECORD

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Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1				3 ANALYSIS REQUESTED	4 (FOR LAB USE ONLY)
CLIENT: TETRA TECH, INC.	PROJECT NUMBER: 26422	P.O. NUMBER:	MEANS SHIPPED:	TURBIDITY	LOGIN # 10098385
ADDRESS: 634 EASTPORT PLAZA DR.	PHONE NUMBER: 618-343	FAX NUMBER:	EMAIL ADDRESS:		LOGGED BY: HE
CITY STATE ZIP: COLLINSVILLE, IL 62234	SAMPLER: PAUL SMITH		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS		LAB PROJ. #:
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE:				TEMPLATE:
					PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	REMARKS
TEST 1: CON-SED-LOW	9/17/10	4:30 PM	✓		SED	1	
TEST 2: CON-SED-MED		4:45 PM	✓		SED	1	
TEST 3: CON-SED-HIGH		4:48 PM	✓		SED	1	
TEST 4: CPC-SED-LOW		4:55 PM	✓		SED	1	
TEST 5: CPC-SED-MED		5:01 PM	✓		SED	1	
TEST 6: CPC-SED-HIGH		5:08	✓		SED	1	
TEST 7: DHC-SED-LOW		5:15	✓		SED	1	
TEST 8: DHC-SED-MED		5:20	✓		SED	1	
TEST 9: DHC-SED-HIGH		5:23	✓		SED	1	
							Charge for 9 Containers also per B.B.

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____ MONDAY
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
	9/17/10	5:20 PM	PSJ 9/17/2010	9/17/10	17:25
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

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Monitoring during bag tests 9/21/10- 9/22/10 + Collected sediment

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/22/10 12:14
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098502-1** Collect Date **09/21/10 10:50**
Client ID : **CON-SED BAG** Site : **PORE WATER-1ST FLUSH** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		17 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	2.4 NTU	09/23/10 17:00	AV	

H - Method Hold Time Exceeded

Sample No: **10098502-2** Collect Date **09/21/10 11:10**
Client ID : **CON-SED BAG** Site : **PORE WATER-SS1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		17 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	2.6 NTU	09/23/10 17:00	AV	

H - Method Hold Time Exceeded

Sample No: **10098502-3** Collect Date **09/22/10 11:45**
Client ID : **CON-SED BAG** Site : **PORE WATER-SS2** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		18 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		2.2 NTU	09/23/10 17:00	AV	

Sample No: **10098502-4** Collect Date **09/21/10 17:40**
Client ID : **CON-SED BAG** Site : **SEDIMENT-1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		73 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/23/10 17:00	AV	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/22/10 12:14
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

9/22/10

Sample No: **10098502-5** Collect Date **09/21/10 11:30**
Client ID : **CON-SED BAG** Site : **SEDIMENT-2** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	32%	68 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/23/10 17:00	AV	

Sample No: **10098502-6** Collect Date **09/21/10 15:30**
Client ID : **CPC-SED BAG** Site : **PORE WATER-1ST FLUSH** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		340 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	110 NTU	09/23/10 17:00	AV	

H - Method Hold Time Exceeded

Sample No: **10098502-7** Collect Date **09/21/10 16:45**
Client ID : **CPC-SED BAG** Site : **PORE WATER-SS1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		93 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	30 NTU	09/23/10 17:00	AV	

H - Method Hold Time Exceeded

Sample No: **10098502-8** Collect Date **09/22/10 11:45**
Client ID : **CPC-SED BAG** Site : **PORE WATER-SS2** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		53 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		24 NTU	09/23/10 17:00	AV	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/22/10 12:14
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098502-9** Collect Date **09/22/10 09:00**
Client ID : **CPC-SED BAG** Site : **SEDIMENT-1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	42%	58 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/23/10 17:00	AV	

Sample No: **10098502-10** Collect Date **09/22/10 09:30**
Client ID : **DHC-SED BAG** Site : **PORE WATER-1ST FLUSH** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		570 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		290 NTU	09/23/10 17:00	AV	

Sample No: **10098502-11** Collect Date **09/22/10 10:30**
Client ID : **DHC-SED BAG** Site : **PORE WATER-SS1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		79 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		53 NTU	09/23/10 17:00	AV	

Sample No: **10098502-12** Collect Date **09/21/10 12:00**
Client ID : **CON-SED** Site : **CONDITIONED SEDIMENT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	10% SLURRY	90 %	09/23/10 12:00	AV	

Sample No: **10098502-13** Collect Date **09/21/10 15:10**
Client ID : **CON-SED** Site : **CONDITIONED SEDIMENT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	CPC	92 %	09/23/10 12:00	AV	

8% SLURRY

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/22/10 12:14
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098502-14** Collect Date **09/22/10 09:30**
Client ID: **CON-SED** Site : **CONDITIONED SEDIMENT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		92 %	09/23/10 12:00	AV	

DHC 8% SLURRY

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NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

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www.pdclab.com

CHAIN OF CUSTODY RECORD

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Fax (314) 432-4977

State where samples collected MD/MO

(Instructions/Sample Acceptance Policy on Reverse)

ROBERT.BESSENT@TETRA TECH.COM

1 OF 2

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1			
CLIENT: LMC-TETRA TECH	PROJECT NUMBER: 26244	P.O. NUMBER:	MEANS SHIPPED:
ADDRESS: 1634 EASTPORT PLAZA DRIVE	PHONE NUMBER: 618-343-2352	FAX NUMBER: 618-343-1200	EMAIL ADDRESS:
CITY, STATE, ZIP: COLLINSVILLE, IL 62234	SAMPLER: BOB BESSENT		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON: BOB BESSENT			

3 PRODUCTS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098502
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

	2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE CODE	MATRIX TYPE	Bottle Count	TSS	TURBIDITY	MOISTURE CONTENT	PAINT FILTER TEST				REMARKS
1	CON-SED BAG PORE WATER- FIRST FLUSH	9/21/10	1050	✓		WATER	1	✓	✓						
2	CON-SED BAG PORE WATER- SS1	9/21/10	1110	✓		"	1	✓	✓						
3	CON-SED BAG PORE WATER- SS2	9/22/10	1145		✓	"	✓1	✓	✓						
4 CON	~~CPC~~-SED BAG SEDIMENT - 1	9/21/10	1740	✓		SED	1			✓	✓				
5	CON-SED BAG SEDIMENT - 2	9/22/10	1130	✓		SED	1			✓	✓				
6	CPC-SED BAG PORE WATER- FIRST FLUSH	9/21/10	1530	✓		WATER	1	✓	✓						
7	CPC-SED BAG PORE WATER- SS1	9/21/10	1645	✓		WATER	1	✓	✓						
8	CPC-SED BAG PORE WATER- SS2	9/22/10	1145	✓		WATER	1	✓	✓						
9	CPC-SED BAG SEDIMENT - 1	9/22/10	0900	✓		SED	1			✓	✓				
10	DHC-SED BAG ~~SEDIMENT~~ FIRST FLUSH *	9/22/10	0930	✓		WATER	1	✓	✓						PORE WATER *
11	DHC-SED BAG PORE WATER- SS1	9/22/10	1030	✓		WATER	1	✓	✓						

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
			Heather Galbert	9/22/10	16:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

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Fax (314) 432-4977

State where samples collected MO/MO

(Instructions/Sample Acceptance Policy on Reverse)

ROBERT.BESSENT@TETRATECH.COM

2 OF 2

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1	PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED	3 ANALYSIS REQUESTED	4 (FOR LAB USE ONLY)
COMPANY: LMC - TETRA TECH	26244			MOISTURE CONTENT	LOGIN #
ADDRESS: 634 EASTPORT PLAZA DR	PHONE NUMBER: 618-343-0352	FAX NUMBER: 618-343-1208	EMAIL ADDRESS		LOGGED BY:
CITY/STATE/ZIP: COLLINSVILLE, IL 62234	COMPANY: SAME AS RECENT		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS		LAB PROJ. #
INVOICE TO: ED RECENT	ADDRESS: SAME AS RECENT				TEMPLATE:
	CITY/STATE/ZIP: SAME AS RECENT				PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	REMARKS
12 CON-SED CONDITIONED SEDIMENT	9/21/10	1200	✓		SED	1	
13 CRC-SED " "	9/21/10	1510	✓		SED	1	
14 DHC-SED " "	9/22/10	0930	✓		SED	1	

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) Fastrak™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____ 6

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
			Heather Cearlock	9/22/10	16:45
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TIME TAKEN FROM SAMPLE BOTTOM	_____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

Sample Collection During dewatering TSS, PFT, TURB, MC 9/22/10 - 9/23/10

PDC Laboratories, Inc.
3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/23/10 13:16
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098503-1** Collect Date **09/22/10 16:30**
Client ID : **DHC-SED BAG** Site : **SEDIMENT-1** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		63 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	FAIL	N/A	09/23/10 17:00	AV	

Sample No: **10098503-2** Collect Date **09/23/10 09:15**
Client ID : **DHC-SED BAG** Site : **PORE WATER-SS2** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		110 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		26 NTU	09/23/10 17:00	AV	

Sample No: **10098503-3** Collect Date **09/23/10 09:50**
Client ID : **CON-SED BAG** Site : **PORE WATER-SS3** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		81 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		6.9 NTU	09/23/10 17:00	AV	

Sample No: **10098503-4** Collect Date **09/23/10 09:50**
Client ID : **CON-SED BAG** Site : **SEDIMENT-3** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	34?	66 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/23/10 17:00	AV	

Sample No: **10098503-5** Collect Date **09/23/10 09:50**
Client ID : **CPC-SED BAG** Site : **SEDIMENT-2** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		66 %	09/23/10 12:00	AV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/23/10 17:00	AV	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/23/10 13:34
Report Date 09/27/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098503-6** Collect Date **09/23/10 09:50**
Client ID : **CPC-SED BAG** Site : **PORE WATER-SS3** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		40 mg/l	09/23/10 12:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity		9 NTU	09/23/10 17:00	AV	

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PIA PDC Laboratories - Peoria, IL
NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech
ADDRESS:
CITY:
STATE:
ZIP:
CONTACT PERSON: Bob Bessent

PROJECT NUMBER: 26244
P.O. NUMBER:
MEANS SHIPPED:
PHONE NUMBER:
FAX NUMBER:
EMAIL ADDRESS:
COMPLIER:
SAMPLING SIGNATURE:

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
L'CHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098503
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	moist	PE	TSS	Turbidity				REMARKS
DHC-SED BAG Sediment-1	9/22/10	16:30			SED	1	X	X						
DHC-SED BAG Pore Water-SS2	9/23/10	09:15			WATER	1			X	X				
CON-SED BAG Pore Water-SS3	↓	09:50			↓	1			X	X				
CON-SED BAG Sediment-3	↓	↓			SED	1	X	X						
CPC-SED BAG Sediment-2	↓	↓			↓	1	X	X						
CPC-SED BAG Pore Water-SS3	↓	↓			WATER	1			X	X				

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[illegible]	[illegible]	9:20	Heather Leachart	9/23/10	09:20
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

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SAMPLES COLLECTED DURING BAG DEWATERING MOISTURE/PFT/TSS/TC 9/24/10

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ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/24/10 13:14
Report Date 09/29/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098564-1** Collect Date **09/24/10 12:30**
Client ID : **CON-SED BAG** Site : Locator : **PORE WATER-SS4**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		14 mg/l	09/28/10 14:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	7.2 NTU	09/27/10 14:30	ACV	

H - Method Hold Time Exceeded

Sample No: **10098564-2** Collect Date **09/24/10 12:30**
Client ID : **CPC-SED BAG** Site : Locator : **PORE WATER-SS4**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		24 mg/l	09/28/10 14:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	13 NTU	09/27/10 14:30	ACV	

H - Method Hold Time Exceeded

Sample No: **10098564-3** Collect Date **09/24/10 11:30**
Client ID : **DHC-SED BAG** Site : Locator : **PORE WATER-SS3**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		32 mg/l	09/28/10 14:00	ACV	
SM 2130B/EPA 180.1					STL
Turbidity	H	23 NTU	09/27/10 14:30	ACV	

H - Method Hold Time Exceeded

Sample No: **10098564-4** Collect Date **09/24/10 11:30**
Client ID : **CON-SED BAG** Site : Locator : **SEDIMENT-4**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		65 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/24/10 13:14
Report Date 09/29/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098564-5** Collect Date **09/24/10 11:30**
Client ID : **CPC-SED BAG** Site : Locator : **SEDIMENT-3**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		50 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

Sample No: **10098564-6** Collect Date **09/24/10 11:30**
Client ID : **DHC-SED BAG** Site : Locator : **SEDIMENT-2**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture		52 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

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NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

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Florissant, MO 63033
www.pdclab.com

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Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech	PROJECT NUMBER	P.O. NUMBER	MEANS SHIPPED
ADDRESS	PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS
CITY, STATE, ZIP: Collinsville, IL	SAMPLED BY: Dave Meyers		
CONTACT PERSON: Dr. Dan Bosserman	SIGNATURE		

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
L'CHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	GRAB	COMP	MATRIX TYPE	Bottle Count	3 ANALYSIS REQUESTED: TSS	Turb	Moist	Paint Filter				4 (FOR LAB USE ONLY)
CON-SED BAG Pore Water-SS4	9/24/10	12:30			SETWW	1	X	X						LOGIN # 10098581
CPC-" "-SS4		12:30					X	X						LOGGED BY: HC
DHC-" "-SS3		11:30					X	X						LAB PROJ. #
CON-SED BAG Sediment-4					NAS				X	X				TEMPLATE:
CPC-" "-3									X	X				PROJ. MGR.:
DHC-" "-2									X	X				REMARKS

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
(NORMAL (8-10 Bus. Days)) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
			Heather Earhart	9/24/10	12:30
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	_____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	_____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

SAMPLES COLLECTED AS BAGS DEWATERED

9/27/10

PDC Laboratories, Inc. MOISTURE / PFT
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(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/27/10 13:23
Report Date 09/29/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098565-1** Collect Date **09/27/10 13:00**
Client ID : **CON-SED BAG** Site : Locator : **SEDIMENT-5**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	% SOLIDS = 37%	63 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

Sample No: **10098565-2** Collect Date **09/27/10 13:00**
Client ID : **CPC-SED BAG** Site : Locator : **SEDIMENT-4**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	% SOLIDS = 51%	49 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

Sample No: **10098565-3** Collect Date **09/27/10 13:00**
Client ID : **DHC-SED BAG** Site : Locator : **SEDIMENT-3**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	% SOLIDS = 52%	48 %	09/27/10 15:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/27/10 12:30	ACV	

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/27/10 13:23
Report Date 09/29/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

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- NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
- State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
- Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
- Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
- Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
- UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
- EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
- NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

10098565

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3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

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Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech
ADDRESS:
CITY, STATE, ZIP: Collinsville, IL
CONTACT PERSON: Bob Bessert

PROJECT NUMBER:
P.O. NUMBER:
MEANS SHIPPED:
PHONE NUMBER:
FAX NUMBER:
EMAIL ADDRESS:
SAMPLER: Dave Meyers
SAMPLER'S SIGNATURE:

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
L'CHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098565
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	Moist	Paint Filter						REMARKS
CON-SED BAG Sediment-5	9/27/10	13:00			NAS	1	X	X						
CPC-SED BAG Sediment-4	↓	↓			↓	↓	X	X						
DHC-SED BAG Sediment-3	↓	↓			↓	↓	X	X						

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) Fastrak™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____

RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the *range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing* regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
			Heather Earhart	9/27/10	13:15
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

Final SEDIMENT MOISTURES PFT (AFTER BAGS CUT) 9/29/10

PDC Laboratories, Inc.
3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/30/10 16:38
Report Date 10/07/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

Sample No: **10098678-1** Collect Date **09/29/10 11:35**
Client ID : **CON-SED FINAL SEDMNT** Site : **AFTER BAGS CUT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	36%	64 %	10/04/10 13:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/30/10 17:45	AV	

Sample No: **10098678-2** Collect Date **09/29/10 11:45**
Client ID : **CPC-SED FINAL SEDMNT** Site : **AFTER BAGS CUT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	49%	51 %	10/04/10 13:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/30/10 17:45	AV	

Sample No: **10098678-3** Collect Date **09/29/10 11:00**
Client ID : **DHC-SED FINAL SEDMNT** Site : **AFTER BAGS CUT** Locator : **26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540B					STL
Moisture	49%	51 %	10/04/10 13:00	ACV	
SW-846 9095					STL
Paint Filter	PASS	N/A	09/30/10 17:45	AV	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/30/10 16:38
Report Date 10/07/10
Customer # : 276639
P.O. Number : 100-AMC-T26244.01
Facility :

This report shall not be reproduced, except in full, without the written approval of the laboratory.

PDC Laboratories participates in the following accreditation/certification and proficiency programs at the following locations. Endorsement by the Federal or State Government or their agencies is not implied.

PIA PDC Laboratories - Peoria, IL
NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)

SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

10098678

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

robert.bessent@tetratech.com

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1			
CLIENT: TETRA TECH, INC	PROJECT NUMBER: 26244	P.O. NUMBER:	MEANS SHIPPED:
ADDRESS: 1634 EASTPORT PLAZA	PHONE NUMBER: 618-343-2352	FAX NUMBER: 618-345-1281	EMAIL ADDRESS:
CITY, STATE, ZIP: COLLINSVILLE, IL 62234	SAMPLER: BOB BESSENT		MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS
CONTACT PERSON: BOB BESSENT	SAMPLER'S SIGNATURE: [signature]		

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098678
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	MOISTURE CONTENT	PAINT FILTER TEST						REMARKS
CON-SED FINAL SEDIMENT	9/29/10	1135	✓		SED	1	✓	✓						AFTER BAGS CUT
CPC-SED FINAL SEDIMENT	9/29/10	1145	✓		SED	1	✓	✓						" " "
DHC-SED FINAL SEDIMENT	9/29/10	1100	✓		SED	1	✓	✓						" " "

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) Fastrek™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE-CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	9/30/10	0930	Heather Earhart	9/30/10	09:30
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) Y OR N
(EXCLUDES TYPICAL FIELD PARAMETERS)
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

Pore Water Composite Results

PDC Laboratories, Inc.

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(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-1** Collect Date **09/28/10 16:03**
Client ID : **092810-01** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		69 mg/l	10/01/10 17:00	ACV	
SM (18) 4500 H B					STL
pH	H	7.8 units	09/30/10 17:00	AV	
H - Method Hold Time Exceeded					
SM 2130B/EPA 180.1					STL
Turbidity		46 NTU	09/30/10 14:00	AV	

Sample No: **10098664-2** Collect Date **09/28/10 16:03**
Client ID : **092810-02 DUP** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		69 mg/l	10/01/10 17:00	ACV	
SM (18) 4500 H B					STL
pH	H	7.82 units	09/30/10 17:00	AV	
H - Method Hold Time Exceeded					
SM 2130B/EPA 180.1					STL
Turbidity		45 NTU	09/30/10 14:00	AV	

Sample No: **10098664-3** Collect Date **09/28/10 16:10**
Client ID : **092810-03** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		110 mg/l	10/01/10 17:00	ACV	
SM (18) 4500 H B					STL
pH	H	7.39 units	09/30/10 17:00	AV	
H - Method Hold Time Exceeded					
SM 2130B/EPA 180.1					STL
Turbidity		85 NTU	09/30/10 14:00	AV	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-4** Collect Date **09/28/10 16:12**
Client ID : **092810-04** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SM (18) 2540D					STL
Solids, Total Suspended		6 mg/l	10/01/10 17:00	ACV	
SM (18) 4500 H B					STL
pH	H	7.71 units	09/30/10 17:00	AV	
H - Method Hold Time Exceeded					
SM 2130B/EPA 180.1					STL
Turbidity		37 NTU	09/30/10 14:00	AV	

Sample No: **10098664-5** Collect Date **09/28/10 16:30**
Client ID : **092810-05** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3005A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony, Dissolved	<	10 ug/l	10/04/10 14:41	WPS	
Arsenic, Dissolved		40 ug/l	10/04/10 14:41	WPS	
Beryllium, Dissolved	<	1 ug/l	10/04/10 14:41	WPS	
Cadmium, Dissolved	<	2 ug/l	10/04/10 14:41	WPS	
Chromium, Dissolved	<	2 ug/l	10/04/10 14:41	WPS	
Copper, Dissolved	<	2 ug/l	10/04/10 14:41	WPS	
Lead, Dissolved	<	10 ug/l	10/04/10 14:41	WPS	
Nickel, Dissolved	<	2 ug/l	10/04/10 14:41	WPS	
Selenium, Dissolved		37 ug/l	10/04/10 14:41	WPS	
Silver, Dissolved	<	1.5 ug/l	10/04/10 14:41	WPS	
Thallium, Dissolved	<	20 ug/l	10/04/10 14:41	WPS	
Zinc, Dissolved	<	10 ug/l	10/04/10 14:41	WPS	
SW-846 7470A R1.0					STL
Mercury, Dissolved	<	0.2 ug/l	10/01/10 13:46	WPS	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-6** Collect Date **09/28/10 16:31**
Client ID : **092810-06** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3010A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony	<	10 ug/l	10/04/10 14:44	WPS	
Arsenic		34 ug/l	10/04/10 14:44	WPS	
Beryllium	<	1 ug/l	10/04/10 14:44	WPS	
Cadmium	<	2 ug/l	10/04/10 14:44	WPS	
Chromium		14 ug/l	10/04/10 14:44	WPS	
Copper		6.1 ug/l	10/04/10 14:44	WPS	
Lead	<	10 ug/l	10/04/10 14:44	WPS	
Nickel		4.9 ug/l	10/04/10 14:44	WPS	
Selenium		22 ug/l	10/04/10 14:44	WPS	
Silver	<	1.5 ug/l	10/04/10 14:44	WPS	
Thallium	<	20 ug/l	10/04/10 14:44	WPS	
Zinc		26 ug/l	10/04/10 14:44	WPS	
SW-846 7470A R1.0					STL
Mercury	<	0.2 ug/l	10/01/10 13:46	WPS	

Sample No: **10098664-7** Collect Date **09/28/10 16:31**
Client ID : **092810-07 DUP** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3010A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony	<	10 ug/l	10/04/10 14:48	WPS	
Arsenic		32 ug/l	10/04/10 14:48	WPS	
Beryllium	<	1 ug/l	10/04/10 14:48	WPS	
Cadmium	<	2 ug/l	10/04/10 14:48	WPS	
Chromium		11 ug/l	10/04/10 14:48	WPS	
Copper		5.2 ug/l	10/04/10 14:48	WPS	
Lead	<	10 ug/l	10/04/10 14:48	WPS	
Nickel		4.2 ug/l	10/04/10 14:48	WPS	
Selenium		20 ug/l	10/04/10 14:48	WPS	
Silver	<	1.5 ug/l	10/04/10 14:48	WPS	
Thallium	<	20 ug/l	10/04/10 14:48	WPS	
Zinc		23 ug/l	10/04/10 14:48	WPS	
SW-846 7470A R1.0					STL
Mercury	<	0.2 ug/l	10/01/10 13:46	WPS	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-8** Collect Date **09/28/10 16:31**
Client ID : **092810-08 MS** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3010A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony		100 ug/l	10/04/10 14:52	WPS	
Arsenic		140 ug/l	10/04/10 14:52	WPS	
Cadmium		100 ug/l	10/04/10 14:52	WPS	
Chromium		120 ug/l	10/04/10 14:52	WPS	
Copper		110 ug/l	10/04/10 14:52	WPS	
Lead		98 ug/l	10/04/10 14:52	WPS	
Nickel		100 ug/l	10/04/10 14:52	WPS	
Selenium		120 ug/l	10/04/10 14:52	WPS	
Silver		27 ug/l	10/04/10 14:52	WPS	
Thallium		93 ug/l	10/04/10 14:52	WPS	
Zinc		150 ug/l	10/04/10 14:52	WPS	
SW-846 7470A R1.0					STL
Mercury		2 ug/l	10/01/10 13:46	WPS	

Sample No: **10098664-9** Collect Date **09/28/10 16:35**
Client ID : **092810-09** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 15:28	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 15:28	JK	
PCBs Total	<	0.5 ug/l	10/05/10 15:28	JK	

Sample No: **10098664-10** Collect Date **09/28/10 16:37**
Client ID : **092810-10** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 15:58	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 15:58	JK	
PCBs Total	<	0.5 ug/l	10/05/10 15:58	JK	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-11** Collect Date **09/28/10 16:38**
Client ID : **092810-11** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 16:22	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 16:22	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 16:22	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 16:22	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 16:22	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 16:22	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 16:22	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 16:22	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 16:22	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 16:22	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 16:22	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 16:22	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 16:22	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 16:22	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 16:22	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 16:22	JK	
2-Methylphenol	<	10 ug/l	10/11/10 16:22	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 16:22	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 16:22	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 16:22	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 16:22	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 16:22	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 16:22	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 16:22	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 16:22	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 16:22	JK	
4-Methylphenol	<	10 ug/l	10/11/10 16:22	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 16:22	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 16:22	JK	
Acenaphthene	<	10 ug/l	10/11/10 16:22	JK	
Acenaphthylene	<	10 ug/l	10/11/10 16:22	JK	
Aniline	<	10 ug/l	10/11/10 16:22	JK	
Anthracene	<	10 ug/l	10/11/10 16:22	JK	
Benzidine	<	10 ug/l	10/11/10 16:22	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 16:22	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 16:22	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 16:22	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 16:22	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 16:22	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 16:22	JK	
Benzoic acid	<	10 ug/l	10/11/10 16:22	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 16:22	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 16:22	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 16:22	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 16:22	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 16:22	JK	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-11** Collect Date **09/28/10 16:38**
Client ID : **092810-11** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 16:22	JK
Chrysene	<	10 ug/l	10/11/10 16:22	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 16:22	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 16:22	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 16:22	JK
Dibenzofuran	<	10 ug/l	10/11/10 16:22	JK
Diethylphthalate	<	10 ug/l	10/11/10 16:22	JK
Dimethylphthalate	<	10 ug/l	10/11/10 16:22	JK
Diphenylamine	<	10 ug/l	10/11/10 16:22	JK
Fluoranthene	<	10 ug/l	10/11/10 16:22	JK
Fluorene	<	10 ug/l	10/11/10 16:22	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 16:22	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 16:22	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 16:22	JK
Hexachloroethane	<	10 ug/l	10/11/10 16:22	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 16:22	JK
Isophorone	<	10 ug/l	10/11/10 16:22	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 16:22	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 16:22	JK
Naphthalene	<	10 ug/l	10/11/10 16:22	JK
Nitrobenzene	<	10 ug/l	10/11/10 16:22	JK
Pentachlorophenol	<	10 ug/l	10/11/10 16:22	JK
Phenanthrene	<	10 ug/l	10/11/10 16:22	JK
Phenol	<	10 ug/l	10/11/10 16:22	JK
Pyrene	<	10 ug/l	10/11/10 16:22	JK
Pyridine	<	10 ug/l	10/11/10 16:22	JK

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-12** Collect Date **09/28/10 16:40**
Client ID : **092810-12** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 17:05	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 17:05	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 17:05	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 17:05	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 17:05	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 17:05	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 17:05	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 17:05	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 17:05	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 17:05	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 17:05	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 17:05	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 17:05	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 17:05	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 17:05	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 17:05	JK	
2-Methylphenol	<	10 ug/l	10/11/10 17:05	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 17:05	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 17:05	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 17:05	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 17:05	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 17:05	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 17:05	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 17:05	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 17:05	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 17:05	JK	
4-Methylphenol	<	10 ug/l	10/11/10 17:05	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 17:05	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 17:05	JK	
Acenaphthene	<	10 ug/l	10/11/10 17:05	JK	
Acenaphthylene	<	10 ug/l	10/11/10 17:05	JK	
Aniline	<	10 ug/l	10/11/10 17:05	JK	
Anthracene	<	10 ug/l	10/11/10 17:05	JK	
Benzidine	<	10 ug/l	10/11/10 17:05	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 17:05	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 17:05	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 17:05	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 17:05	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 17:05	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 17:05	JK	
Benzoic acid	<	10 ug/l	10/11/10 17:05	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 17:05	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 17:05	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 17:05	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 17:05	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 17:05	JK	

PDC Laboratories, Inc.
3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-12** Collect Date **09/28/10 16:40**
Client ID : **092810-12** Site : **CON-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 17:05	JK
Chrysene	<	10 ug/l	10/11/10 17:05	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 17:05	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 17:05	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 17:05	JK
Dibenzofuran	<	10 ug/l	10/11/10 17:05	JK
Diethylphthalate	<	10 ug/l	10/11/10 17:05	JK
Dimethylphthalate	<	10 ug/l	10/11/10 17:05	JK
Diphenylamine	<	10 ug/l	10/11/10 17:05	JK
Fluoranthene	<	10 ug/l	10/11/10 17:05	JK
Fluorene	<	10 ug/l	10/11/10 17:05	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 17:05	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 17:05	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 17:05	JK
Hexachloroethane	<	10 ug/l	10/11/10 17:05	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 17:05	JK
Isophorone	<	10 ug/l	10/11/10 17:05	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 17:05	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 17:05	JK
Naphthalene	<	10 ug/l	10/11/10 17:05	JK
Nitrobenzene	<	10 ug/l	10/11/10 17:05	JK
Pentachlorophenol	<	10 ug/l	10/11/10 17:05	JK
Phenanthrene	<	10 ug/l	10/11/10 17:05	JK
Phenol	<	10 ug/l	10/11/10 17:05	JK
Pyrene	<	10 ug/l	10/11/10 17:05	JK
Pyridine	<	10 ug/l	10/11/10 17:05	JK

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-13** Collect Date **09/28/10 16:42**
Client ID : **092810-13** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3005A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony, Dissolved	<	10 ug/l	10/04/10 14:55	WPS	
Arsenic, Dissolved		30 ug/l	10/04/10 14:55	WPS	
Beryllium, Dissolved	<	1 ug/l	10/04/10 14:55	WPS	
Cadmium, Dissolved		2.2 ug/l	10/04/10 14:55	WPS	
Chromium, Dissolved	<	2 ug/l	10/04/10 14:55	WPS	
Copper, Dissolved	<	2 ug/l	10/04/10 14:55	WPS	
Lead, Dissolved	<	10 ug/l	10/04/10 14:55	WPS	
Nickel, Dissolved		3.2 ug/l	10/04/10 14:55	WPS	
Selenium, Dissolved		19 ug/l	10/04/10 14:55	WPS	
Silver, Dissolved	<	1.5 ug/l	10/04/10 14:55	WPS	
Thallium, Dissolved		20 ug/l	10/04/10 14:55	WPS	
Zinc, Dissolved		16 ug/l	10/04/10 14:55	WPS	
SW-846 7470A R1.0					STL
Mercury, Dissolved	<	0.2 ug/l	10/01/10 13:46	WPS	

Sample No: **10098664-14** Collect Date **09/28/10 16:43**
Client ID : **092810-14** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3010A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony	<	10 ug/l	10/04/10 14:59	WPS	
Arsenic		48 ug/l	10/04/10 14:59	WPS	
Beryllium	<	1 ug/l	10/04/10 14:59	WPS	
Cadmium		13 ug/l	10/04/10 14:59	WPS	
Chromium		78 ug/l	10/04/10 14:59	WPS	
Copper		8.8 ug/l	10/04/10 14:59	WPS	
Lead		12 ug/l	10/04/10 14:59	WPS	
Nickel		5.4 ug/l	10/04/10 14:59	WPS	
Selenium		15 ug/l	10/04/10 14:59	WPS	
Silver	<	1.5 ug/l	10/04/10 14:59	WPS	
Thallium	<	20 ug/l	10/04/10 14:59	WPS	
Zinc		76 ug/l	10/04/10 14:59	WPS	
SW-846 7470A R1.0					STL
Mercury	<	0.2 ug/l	10/01/10 13:46	WPS	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-15** Collect Date **09/28/10 16:44**
Client ID : **092810-15** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 16:29	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 16:29	JK	
PCBs Total	<	0.5 ug/l	10/05/10 16:29	JK	

Sample No: **10098664-16** Collect Date **09/28/10 16:45**
Client ID : **092810-16** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1221	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1232	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1242	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1248	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1254	<	0.5 ug/l	10/06/10 14:21	JK	
Aroclor 1260	<	0.5 ug/l	10/06/10 14:21	JK	
PCBs Total	<	0.5 ug/l	10/06/10 14:21	JK	

Sample No: **10098664-17** Collect Date **09/28/10 16:45**
Client ID : **092810-17 DUP** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 17:30	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 17:30	JK	
PCBs Total	<	0.5 ug/l	10/05/10 17:30	JK	

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-18** Collect Date **09/28/10 16:45**
Client ID : **092810-18 MS** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016		4.4 ug/l	10/05/10 18:00	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 18:00	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 18:00	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 18:00	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 18:00	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 18:00	JK	
Aroclor 1260		4.2 ug/l	10/05/10 18:00	JK	
PCBs Total		8.6 ug/l	10/05/10 18:00	JK	

Spike amount= 5ppb.Total = 10ppb

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-19** Collect Date **09/28/10 16:47**
Client ID : **092810-19** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 17:48	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 17:48	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 17:48	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 17:48	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 17:48	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 17:48	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 17:48	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 17:48	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 17:48	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 17:48	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 17:48	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 17:48	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 17:48	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 17:48	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 17:48	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 17:48	JK	
2-Methylphenol	<	10 ug/l	10/11/10 17:48	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 17:48	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 17:48	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 17:48	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 17:48	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 17:48	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 17:48	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 17:48	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 17:48	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 17:48	JK	
4-Methylphenol	<	10 ug/l	10/11/10 17:48	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 17:48	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 17:48	JK	
Acenaphthene	<	10 ug/l	10/11/10 17:48	JK	
Acenaphthylene	<	10 ug/l	10/11/10 17:48	JK	
Aniline	<	10 ug/l	10/11/10 17:48	JK	
Anthracene	<	10 ug/l	10/11/10 17:48	JK	
Benzidine	<	10 ug/l	10/11/10 17:48	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 17:48	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 17:48	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 17:48	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 17:48	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 17:48	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 17:48	JK	
Benzoic acid	<	10 ug/l	10/11/10 17:48	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 17:48	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 17:48	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 17:48	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 17:48	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 17:48	JK	

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-19** Collect Date **09/28/10 16:47**
Client ID : **092810-19** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 17:48	JK
Chrysene	<	10 ug/l	10/11/10 17:48	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 17:48	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 17:48	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 17:48	JK
Dibenzofuran	<	10 ug/l	10/11/10 17:48	JK
Diethylphthalate	<	10 ug/l	10/11/10 17:48	JK
Dimethylphthalate	<	10 ug/l	10/11/10 17:48	JK
Diphenylamine	<	10 ug/l	10/11/10 17:48	JK
Fluoranthene	<	10 ug/l	10/11/10 17:48	JK
Fluorene	<	10 ug/l	10/11/10 17:48	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 17:48	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 17:48	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 17:48	JK
Hexachloroethane	<	10 ug/l	10/11/10 17:48	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 17:48	JK
Isophorone	<	10 ug/l	10/11/10 17:48	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 17:48	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 17:48	JK
Naphthalene	<	10 ug/l	10/11/10 17:48	JK
Nitrobenzene	<	10 ug/l	10/11/10 17:48	JK
Pentachlorophenol	<	10 ug/l	10/11/10 17:48	JK
Phenanthrene	<	10 ug/l	10/11/10 17:48	JK
Phenol	<	10 ug/l	10/11/10 17:48	JK
Pyrene	<	10 ug/l	10/11/10 17:48	JK
Pyridine	<	10 ug/l	10/11/10 17:48	JK

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-20** Collect Date **09/28/10 16:48**
Client ID : **092810-20** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 18:30	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 18:30	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 18:30	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 18:30	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 18:30	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 18:30	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 18:30	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 18:30	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 18:30	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 18:30	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 18:30	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 18:30	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 18:30	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 18:30	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 18:30	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 18:30	JK	
2-Methylphenol	<	10 ug/l	10/11/10 18:30	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 18:30	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 18:30	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 18:30	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 18:30	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 18:30	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 18:30	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 18:30	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 18:30	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 18:30	JK	
4-Methylphenol	<	10 ug/l	10/11/10 18:30	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 18:30	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 18:30	JK	
Acenaphthene	<	10 ug/l	10/11/10 18:30	JK	
Acenaphthylene	<	10 ug/l	10/11/10 18:30	JK	
Aniline	<	10 ug/l	10/11/10 18:30	JK	
Anthracene	<	10 ug/l	10/11/10 18:30	JK	
Benzidine	<	10 ug/l	10/11/10 18:30	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 18:30	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 18:30	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 18:30	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 18:30	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 18:30	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 18:30	JK	
Benzoic acid	<	10 ug/l	10/11/10 18:30	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 18:30	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 18:30	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 18:30	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 18:30	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 18:30	JK	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-20** Collect Date **09/28/10 16:48**
Client ID : **092810-20** Site : **CPC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 18:30	JK
Chrysene	<	10 ug/l	10/11/10 18:30	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 18:30	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 18:30	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 18:30	JK
Dibenzofuran	<	10 ug/l	10/11/10 18:30	JK
Diethylphthalate	<	10 ug/l	10/11/10 18:30	JK
Dimethylphthalate	<	10 ug/l	10/11/10 18:30	JK
Diphenylamine	<	10 ug/l	10/11/10 18:30	JK
Fluoranthene	<	10 ug/l	10/11/10 18:30	JK
Fluorene	<	10 ug/l	10/11/10 18:30	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 18:30	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 18:30	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 18:30	JK
Hexachloroethane	<	10 ug/l	10/11/10 18:30	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 18:30	JK
Isophorone	<	10 ug/l	10/11/10 18:30	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 18:30	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 18:30	JK
Naphthalene	<	10 ug/l	10/11/10 18:30	JK
Nitrobenzene	<	10 ug/l	10/11/10 18:30	JK
Pentachlorophenol	<	10 ug/l	10/11/10 18:30	JK
Phenanthrene	<	10 ug/l	10/11/10 18:30	JK
Phenol	<	10 ug/l	10/11/10 18:30	JK
Pyrene	<	10 ug/l	10/11/10 18:30	JK
Pyridine	<	10 ug/l	10/11/10 18:30	JK

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-21** Collect Date **09/28/10 16:50**
Client ID : **092810-21** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3005A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony, Dissolved	<	10 ug/l	10/04/10 15:14	WPS	
Arsenic, Dissolved		24 ug/l	10/04/10 15:14	WPS	
Beryllium, Dissolved	<	1 ug/l	10/04/10 15:14	WPS	
Cadmium, Dissolved	<	2 ug/l	10/04/10 15:14	WPS	
Chromium, Dissolved	<	2 ug/l	10/04/10 15:14	WPS	
Copper, Dissolved	<	2 ug/l	10/04/10 15:14	WPS	
Lead, Dissolved	<	10 ug/l	10/04/10 15:14	WPS	
Nickel, Dissolved		2.2 ug/l	10/04/10 15:14	WPS	
Selenium, Dissolved		28 ug/l	10/04/10 15:14	WPS	
Silver, Dissolved	<	1.5 ug/l	10/04/10 15:14	WPS	
Thallium, Dissolved	<	20 ug/l	10/04/10 15:14	WPS	
Zinc, Dissolved		10 ug/l	10/04/10 15:14	WPS	
SW-846 7470A R1.0					STL
Mercury, Dissolved	<	0.2 ug/l	10/01/10 13:46	WPS	

Sample No: **10098664-22** Collect Date **09/28/10 16:51**
Client ID : **092810-22** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 3010A					STL
Sample Preparation			10/01/10 09:00	JS	
SW-846 6010B R2.0					STL
Antimony	<	10 ug/l	10/04/10 15:18	WPS	
Arsenic		21 ug/l	10/04/10 15:18	WPS	
Beryllium	<	1 ug/l	10/04/10 15:18	WPS	
Cadmium		2.6 ug/l	10/04/10 15:18	WPS	
Chromium		33 ug/l	10/04/10 15:18	WPS	
Copper		73 ug/l	10/04/10 15:18	WPS	
Lead		14 ug/l	10/04/10 15:18	WPS	
Nickel		6.7 ug/l	10/04/10 15:18	WPS	
Selenium		14 ug/l	10/04/10 15:18	WPS	
Silver	<	1.5 ug/l	10/04/10 15:18	WPS	
Thallium	<	20 ug/l	10/04/10 15:18	WPS	
Zinc		84 ug/l	10/04/10 15:18	WPS	
SW-846 7470A R1.0					STL
Mercury	<	0.2 ug/l	10/01/10 13:46	WPS	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-23** Collect Date **09/28/10 16:52**
Client ID : **092810-23** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 18:30	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 18:30	JK	
PCBs Total	<	0.5 ug/l	10/05/10 18:30	JK	

Sample No: **10098664-24** Collect Date **09/28/10 16:53**
Client ID : **092810-24** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8082 R0.0					STL
Aroclor 1016	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1221	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1232	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1242	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1248	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1254	<	0.5 ug/l	10/05/10 19:00	JK	
Aroclor 1260	<	0.5 ug/l	10/05/10 19:00	JK	
PCBs Total	<	0.5 ug/l	10/05/10 19:00	JK	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-25** Collect Date **09/28/10 16:54**
Client ID : **092810-25** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 19:13	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 19:13	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 19:13	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 19:13	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 19:13	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 19:13	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 19:13	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 19:13	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 19:13	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 19:13	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 19:13	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 19:13	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 19:13	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 19:13	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 19:13	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 19:13	JK	
2-Methylphenol	<	10 ug/l	10/11/10 19:13	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 19:13	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 19:13	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 19:13	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 19:13	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 19:13	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 19:13	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 19:13	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 19:13	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 19:13	JK	
4-Methylphenol	<	10 ug/l	10/11/10 19:13	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 19:13	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 19:13	JK	
Acenaphthene	<	10 ug/l	10/11/10 19:13	JK	
Acenaphthylene	<	10 ug/l	10/11/10 19:13	JK	
Aniline	<	10 ug/l	10/11/10 19:13	JK	
Anthracene	<	10 ug/l	10/11/10 19:13	JK	
Benzidine	<	10 ug/l	10/11/10 19:13	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 19:13	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 19:13	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 19:13	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 19:13	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 19:13	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 19:13	JK	
Benzoic acid	<	10 ug/l	10/11/10 19:13	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 19:13	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 19:13	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 19:13	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 19:13	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 19:13	JK	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-25** Collect Date **09/28/10 16:54**
Client ID : **092810-25** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 19:13	JK
Chrysene	<	10 ug/l	10/11/10 19:13	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 19:13	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 19:13	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 19:13	JK
Dibenzofuran	<	10 ug/l	10/11/10 19:13	JK
Diethylphthalate	<	10 ug/l	10/11/10 19:13	JK
Dimethylphthalate	<	10 ug/l	10/11/10 19:13	JK
Diphenylamine	<	10 ug/l	10/11/10 19:13	JK
Fluoranthene	<	10 ug/l	10/11/10 19:13	JK
Fluorene	<	10 ug/l	10/11/10 19:13	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 19:13	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 19:13	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 19:13	JK
Hexachloroethane	<	10 ug/l	10/11/10 19:13	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 19:13	JK
Isophorone	<	10 ug/l	10/11/10 19:13	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 19:13	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 19:13	JK
Naphthalene	<	10 ug/l	10/11/10 19:13	JK
Nitrobenzene	<	10 ug/l	10/11/10 19:13	JK
Pentachlorophenol	<	10 ug/l	10/11/10 19:13	JK
Phenanthrene	<	10 ug/l	10/11/10 19:13	JK
Phenol	<	10 ug/l	10/11/10 19:13	JK
Pyrene	<	10 ug/l	10/11/10 19:13	JK
Pyridine	<	10 ug/l	10/11/10 19:13	JK

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-26** Collect Date **09/28/10 16:54**
Client ID : **092810-26 DUP** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 20:38	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 20:38	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 20:38	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 20:38	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 20:38	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 20:38	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 20:38	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 20:38	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 20:38	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 20:38	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 20:38	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 20:38	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 20:38	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 20:38	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 20:38	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 20:38	JK	
2-Methylphenol	<	10 ug/l	10/11/10 20:38	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 20:38	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 20:38	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 20:38	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 20:38	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 20:38	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 20:38	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 20:38	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 20:38	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 20:38	JK	
4-Methylphenol	<	10 ug/l	10/11/10 20:38	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 20:38	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 20:38	JK	
Acenaphthene	<	10 ug/l	10/11/10 20:38	JK	
Acenaphthylene	<	10 ug/l	10/11/10 20:38	JK	
Aniline	<	10 ug/l	10/11/10 20:38	JK	
Anthracene	<	10 ug/l	10/11/10 20:38	JK	
Benzidine	Q,<	10 ug/l	10/11/10 20:38	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 20:38	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 20:38	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 20:38	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 20:38	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 20:38	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 20:38	JK	
Benzoic acid	<	10 ug/l	10/11/10 20:38	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 20:38	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 20:38	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 20:38	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 20:38	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 20:38	JK	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-26** Collect Date **09/28/10 16:54**
Client ID : **092810-26 DUP** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 20:38	JK
Chrysene	<	10 ug/l	10/11/10 20:38	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 20:38	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 20:38	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 20:38	JK
Dibenzofuran	<	10 ug/l	10/11/10 20:38	JK
Diethylphthalate	<	10 ug/l	10/11/10 20:38	JK
Dimethylphthalate	<	10 ug/l	10/11/10 20:38	JK
Diphenylamine	<	10 ug/l	10/11/10 20:38	JK
Fluoranthene	<	10 ug/l	10/11/10 20:38	JK
Fluorene	<	10 ug/l	10/11/10 20:38	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 20:38	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 20:38	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 20:38	JK
Hexachloroethane	<	10 ug/l	10/11/10 20:38	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 20:38	JK
Isophorone	<	10 ug/l	10/11/10 20:38	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 20:38	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 20:38	JK
Naphthalene	<	10 ug/l	10/11/10 20:38	JK
Nitrobenzene	<	10 ug/l	10/11/10 20:38	JK
Pentachlorophenol	<	10 ug/l	10/11/10 20:38	JK
Phenanthrene	<	10 ug/l	10/11/10 20:38	JK
Phenol	<	10 ug/l	10/11/10 20:38	JK
Pyrene	<	10 ug/l	10/11/10 20:38	JK
Pyridine	<	10 ug/l	10/11/10 20:38	JK

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-27** Collect Date **09/28/10 16:54**
Client ID : **092810-27 MS** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene		48 ug/l	10/11/10 21:20	JK	
1,2-Dichlorobenzene		47 ug/l	10/11/10 21:20	JK	
1,3-Dichlorobenzene		42 ug/l	10/11/10 21:20	JK	
1,4-Dichlorobenzene		45 ug/l	10/11/10 21:20	JK	
2,2'-oxybis(1-Chloropropane)		53 ug/l	10/11/10 21:20	JK	
2,4,5-Trichlorophenol		58 ug/l	10/11/10 21:20	JK	
2,4,6-Trichlorophenol		59 ug/l	10/11/10 21:20	JK	
2,4-Dichlorophenol		56 ug/l	10/11/10 21:20	JK	
2,4-Dimethylphenol		51 ug/l	10/11/10 21:20	JK	
2,4-Dinitrophenol		72 ug/l	10/11/10 21:20	JK	
2,4-Dinitrotoluene		58 ug/l	10/11/10 21:20	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 21:20	JK	
2,6-Dinitrotoluene		64 ug/l	10/11/10 21:20	JK	
2-Chloronaphthalene		54 ug/l	10/11/10 21:20	JK	
2-Chlorophenol		51 ug/l	10/11/10 21:20	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 21:20	JK	
2-Methylphenol		42 ug/l	10/11/10 21:20	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 21:20	JK	
2-Nitrophenol		58 ug/l	10/11/10 21:20	JK	
3,3'-Dichlorobenzidine		28 ug/l	10/11/10 21:20	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 21:20	JK	
4,6-Dinitro-2-methylphenol		63 ug/l	10/11/10 21:20	JK	
4-Bromophenyl-phenylether		57 ug/l	10/11/10 21:20	JK	
4-Chloro-3-Methylphenol		50 ug/l	10/11/10 21:20	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 21:20	JK	
4-Chlorophenyl-phenyl Ether		53 ug/l	10/11/10 21:20	JK	
4-Methylphenol		37 ug/l	10/11/10 21:20	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 21:20	JK	
4-Nitrophenol		22 ug/l	10/11/10 21:20	JK	
Acenaphthene		63 ug/l	10/11/10 21:20	JK	
Acenaphthylene		50 ug/l	10/11/10 21:20	JK	
Aniline	<	10 ug/l	10/11/10 21:20	JK	
Anthracene		57 ug/l	10/11/10 21:20	JK	
Azobenzene		61 ug/l	10/11/10 21:20	JK	
Benzidine	Q,<	10 ug/l	10/11/10 21:20	JK	
Benzo (b) & (k) fluoranthene		120 ug/l	10/11/10 21:20	JK	
Benzo(a)anthracene		62 ug/l	10/11/10 21:20	JK	
Benzo(a)pyrene		67 ug/l	10/11/10 21:20	JK	
Benzo(b)fluoranthene		62 ug/l	10/11/10 21:20	JK	
Benzo(g,h,i)perylene		61 ug/l	10/11/10 21:20	JK	
Benzo(k)fluoranthene		56 ug/l	10/11/10 21:20	JK	
Benzoic acid		19 ug/l	10/11/10 21:20	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 21:20	JK	
bis(2-Chloroethoxy)methane		52 ug/l	10/11/10 21:20	JK	
bis(2-Chloroethyl) Ether		52 ug/l	10/11/10 21:20	JK	
bis(2-Ethylhexyl)phthalate		59 ug/l	10/11/10 21:20	JK	

PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
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ACCREDITED IN ACCORDANCE WITH nelac

Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-27** Collect Date **09/28/10 16:54**
Client ID : **092810-27 MS** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Butylbenzylphthalate		62 ug/l	10/11/10 21:20	JK
Carbazole	<	10 ug/l	10/11/10 21:20	JK
Chrysene		60 ug/l	10/11/10 21:20	JK
Di-n-Butylphthalate		58 ug/l	10/11/10 21:20	JK
Di-n-octylphthalate		56 ug/l	10/11/10 21:20	JK
Dibenzo(a,h)anthracene		64 ug/l	10/11/10 21:20	JK
Dibenzofuran	<	10 ug/l	10/11/10 21:20	JK
Diethylphthalate		55 ug/l	10/11/10 21:20	JK
Dimethylphthalate		58 ug/l	10/11/10 21:20	JK
Diphenylamine		58 ug/l	10/11/10 21:20	JK
Fluoranthene		61 ug/l	10/11/10 21:20	JK
Fluorene		57 ug/l	10/11/10 21:20	JK
Hexachlorobenzene		59 ug/l	10/11/10 21:20	JK
Hexachlorobutadiene		45 ug/l	10/11/10 21:20	JK
Hexachlorocyclopentadiene		43 ug/l	10/11/10 21:20	JK
Hexachloroethane		43 ug/l	10/11/10 21:20	JK
Indeno(1,2,3-cd)pyrene		61 ug/l	10/11/10 21:20	JK
Isophorone		55 ug/l	10/11/10 21:20	JK
N-Nitroso-di-n-propylamine		55 ug/l	10/11/10 21:20	JK
N-Nitrosodimethylamine		27 ug/l	10/11/10 21:20	JK
Naphthalene		50 ug/l	10/11/10 21:20	JK
Nitrobenzene		55 ug/l	10/11/10 21:20	JK
Pentachlorophenol		68 ug/l	10/11/10 21:20	JK
Phenanthrene		58 ug/l	10/11/10 21:20	JK
Phenol		16 ug/l	10/11/10 21:20	JK
Pyrene		62 ug/l	10/11/10 21:20	JK
Pyridine	<	10 ug/l	10/11/10 21:20	JK

Spike amount=80ppb

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-28** Collect Date **09/28/10 16:54**
Client ID : **092810-28** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst	Lab
SW-846 8270C R3.0					STL
1,2,4-Trichlorobenzene	<	10 ug/l	10/11/10 19:55	JK	
1,2-Dichlorobenzene	<	10 ug/l	10/11/10 19:55	JK	
1,3-Dichlorobenzene	<	10 ug/l	10/11/10 19:55	JK	
1,4-Dichlorobenzene	<	10 ug/l	10/11/10 19:55	JK	
2,2'-oxybis(1-Chloropropane)	<	10 ug/l	10/11/10 19:55	JK	
2,4,5-Trichlorophenol	<	10 ug/l	10/11/10 19:55	JK	
2,4,6-Trichlorophenol	<	10 ug/l	10/11/10 19:55	JK	
2,4-Dichlorophenol	<	10 ug/l	10/11/10 19:55	JK	
2,4-Dimethylphenol	<	10 ug/l	10/11/10 19:55	JK	
2,4-Dinitrophenol	<	10 ug/l	10/11/10 19:55	JK	
2,4-Dinitrotoluene	<	10 ug/l	10/11/10 19:55	JK	
2,6-Dimethylaniline	<	10 ug/l	10/11/10 19:55	JK	
2,6-Dinitrotoluene	<	10 ug/l	10/11/10 19:55	JK	
2-Chloronaphthalene	<	10 ug/l	10/11/10 19:55	JK	
2-Chlorophenol	<	10 ug/l	10/11/10 19:55	JK	
2-Methylnaphthalene	<	10 ug/l	10/11/10 19:55	JK	
2-Methylphenol	<	10 ug/l	10/11/10 19:55	JK	
2-Nitroaniline	<	10 ug/l	10/11/10 19:55	JK	
2-Nitrophenol	<	10 ug/l	10/11/10 19:55	JK	
3,3'-Dichlorobenzidine	<	10 ug/l	10/11/10 19:55	JK	
3-Nitroaniline	<	10 ug/l	10/11/10 19:55	JK	
4,6-Dinitro-2-methylphenol	<	10 ug/l	10/11/10 19:55	JK	
4-Bromophenyl-phenylether	<	10 ug/l	10/11/10 19:55	JK	
4-Chloro-3-Methylphenol	<	10 ug/l	10/11/10 19:55	JK	
4-Chloroaniline	<	10 ug/l	10/11/10 19:55	JK	
4-Chlorophenyl-phenyl Ether	<	10 ug/l	10/11/10 19:55	JK	
4-Methylphenol	<	10 ug/l	10/11/10 19:55	JK	
4-Nitroaniline	<	10 ug/l	10/11/10 19:55	JK	
4-Nitrophenol	<	10 ug/l	10/11/10 19:55	JK	
Acenaphthene	<	10 ug/l	10/11/10 19:55	JK	
Acenaphthylene	<	10 ug/l	10/11/10 19:55	JK	
Aniline	<	10 ug/l	10/11/10 19:55	JK	
Anthracene	<	10 ug/l	10/11/10 19:55	JK	
Benzidine	<	10 ug/l	10/11/10 19:55	JK	
Benzo (b) & (k) fluoranthene	<	10 ug/l	10/11/10 19:55	JK	
Benzo(a)anthracene	<	10 ug/l	10/11/10 19:55	JK	
Benzo(a)pyrene	<	10 ug/l	10/11/10 19:55	JK	
Benzo(b)fluoranthene	<	10 ug/l	10/11/10 19:55	JK	
Benzo(g,h,i)perylene	<	10 ug/l	10/11/10 19:55	JK	
Benzo(k)fluoranthene	<	10 ug/l	10/11/10 19:55	JK	
Benzoic acid	<	10 ug/l	10/11/10 19:55	JK	
Benzyl Alcohol	<	10 ug/l	10/11/10 19:55	JK	
bis(2-Chloroethoxy)methane	<	10 ug/l	10/11/10 19:55	JK	
bis(2-Chloroethyl) Ether	<	10 ug/l	10/11/10 19:55	JK	
bis(2-Ethylhexyl)phthalate	<	10 ug/l	10/11/10 19:55	JK	
Butylbenzylphthalate	<	10 ug/l	10/11/10 19:55	JK	

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

Sample No: **10098664-28** Collect Date **09/28/10 16:54**
Client ID : **092810-28** Site : **DHC-SED PORE WATER** Locator : **T26244**

Parameter	Qualifier	Result	Analysis Date	Analyst
SW-846 8270C R3.0				
Carbazole	<	10 ug/l	10/11/10 19:55	JK
Chrysene	<	10 ug/l	10/11/10 19:55	JK
Di-n-Butylphthalate	<	10 ug/l	10/11/10 19:55	JK
Di-n-octylphthalate	<	10 ug/l	10/11/10 19:55	JK
Dibenzo(a,h)anthracene	<	10 ug/l	10/11/10 19:55	JK
Dibenzofuran	<	10 ug/l	10/11/10 19:55	JK
Diethylphthalate	<	10 ug/l	10/11/10 19:55	JK
Dimethylphthalate	<	10 ug/l	10/11/10 19:55	JK
Diphenylamine	<	10 ug/l	10/11/10 19:55	JK
Fluoranthene	<	10 ug/l	10/11/10 19:55	JK
Fluorene	<	10 ug/l	10/11/10 19:55	JK
Hexachlorobenzene	<	10 ug/l	10/11/10 19:55	JK
Hexachlorobutadiene	<	10 ug/l	10/11/10 19:55	JK
Hexachlorocyclopentadiene	<	10 ug/l	10/11/10 19:55	JK
Hexachloroethane	<	10 ug/l	10/11/10 19:55	JK
Indeno(1,2,3-cd)pyrene	<	10 ug/l	10/11/10 19:55	JK
Isophorone	<	10 ug/l	10/11/10 19:55	JK
N-Nitroso-di-n-propylamine	<	10 ug/l	10/11/10 19:55	JK
N-Nitrosodimethylamine	<	10 ug/l	10/11/10 19:55	JK
Naphthalene	<	10 ug/l	10/11/10 19:55	JK
Nitrobenzene	<	10 ug/l	10/11/10 19:55	JK
Pentachlorophenol	<	10 ug/l	10/11/10 19:55	JK
Phenanthrene	<	10 ug/l	10/11/10 19:55	JK
Phenol	<	10 ug/l	10/11/10 19:55	JK
Pyrene	<	10 ug/l	10/11/10 19:55	JK
Pyridine	<	10 ug/l	10/11/10 19:55	JK

PDC Laboratories, Inc.

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Laboratory Results

TETRA TECH
1634 Eport Plaza Dr

COLLINSVILLE, IL 62234
Attn : Paul Smith

Date Received : 09/29/10 11:23
Report Date 10/20/10
Customer # : 276639
P.O. Number :
Facility :

This report shall not be reproduced, except in full, without the written approval of the laboratory.

PDC Laboratories participates in the following accreditation/certification and proficiency programs at the following locations. Endorsement by the Federal or State Government or their agencies is not implied.

PIA PDC Laboratories - Peoria, IL
NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
State of Illinois Bacteriological Analysis in Drinking Water Certified Lab Registry No. 17553
Drinking Water Certifications: Indiana (C-IL-040); Kansas (E-10338); Missouri (00870); Wisconsin (998294430)
Wastewater Certifications: Arkansas; Iowa (240); Kansas (E-10338); Wisconsin (998294430)
Hazardous/Solid Waste Certifications: Arkansas; Kansas (E-10338); Wisconsin(998294430)
UST Certification: Iowa (240)
SPMO PDC Laboratories - Springfield, MO
EPA DMR-QA Program
STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100253.

Certified by: Barbara G. Pandolfo
Barbara G. Pandolfo, Project Manager

PDC Laboratories, Inc.
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DATA QUALIFIERS APPLICABLE TO THE "STANDARD QC" PROGRAM

A The presence of this analyte was confirmed using a second column but there was a disparity (> 40% RPD) between the two sets of results with no apparent chromatographic anomalies. The lower of the two results was reported.

B _____ present in the method blank at _____.

C The batch control sample failed to meet the required acceptance criteria.

D Result obtained through analysis of a sample dilution.

E Concentration exceeds the instrument calibration range.

F Internal standard area failed to meet the required acceptance criteria in repeat instrumental analyses. Results should be interpreted as estimated concentrations.

G The Method of Standard Additions (MSA) was used to quantify the concentration.

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

J Estimated value; value between the MDL and the RDL.

M Analyte failed to meet the required acceptance criteria for duplicate analysis.

P Chemical preservation discrepancy noted at the time of analysis.

Q Analyte failed to meet the required acceptance criteria for spike recovery in the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) due to apparent matrix effects.

R Analyte failed to meet the required acceptance criteria for relative percent difference (RPD) between the Matrix Spike and Matrix Spike Duplicate (MS/MSD).

S Surrogate compound diluted below a reliable quantitation level.

T Surrogate recovery failed to meet the required acceptance criteria in initial analysis. Sample was re-extracted (if applicable) and re-analyzed, and the surrogate recovery was outside of the required acceptance criteria on the second analysis, also. Results should be interpreted as estimated concentrations.

U Parameter was analyzed for, but not detected above the reporting limit.

V Verification standard recovery failed to meet the required acceptance criteria on repeat instrumental analyses.

W Surrogate recovery failed to meet the required acceptance criteria in initial analysis. Sample was re-extracted (if applicable) beyond the maximum allowable hold time, and re-analyzed. The surrogate recovery was within the required acceptance criteria on this second analysis.

NA Not analyzed.

NR Not requested.

X Miscellaneous; see comments.

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected _____

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Terra Tech
ADDRESS: 1634 Eastport Plaza Dr.
CITY STATE ZIP: Collinsville, IL 62234
CONTACT PERSON: B. Dewent

PROJECT NUMBER: T26244
P.O. NUMBER:
MEANS SHIPPED: N/A
PHONE NUMBER: 618-343-2325
FAX NUMBER:
EMAIL ADDRESS: on file
SAMPLER:
SAMPLER'S SIGNATURE:

MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN # 10098664
LOGGED BY: HE
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	TSS	Turbidity	pH					REMARKS
092810-01	9/28/10	4:03pm		✓	ww	1	X	X	X					Con Sed Pore Water
092810-02 Dup	↓	4:03pm		✓	↓	1	X	X	X					" " " "
092810-03	↓	4:10pm		✓	↓	1	X	X	X					DHC Pore Water
092810-04	↓	4:12pm		✓	↓	1	X	X	X					CPC Pore Water

[signature] 9/28/10

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	9/29/10	10:00	Heather Earhart	9/29/10	10:00
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT 8.1 °C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM

Thank you for using PDC Laboratories, Inc. Locations in Peoria, IL; St. Louis, MO; and Springfield, MO

PDC Laboratories, Inc. – St. Louis
3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected MO

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech
ADDRESS: 1634 East Port Plaza Dr.
CITY STATE ZIP: Collinsville, IL 62234
CONTACT PERSON: A. Bellent

PROJECT NUMBER: T26244
P.O. NUMBER:
MEANS SHIPPED: N/A
PHONE NUMBER: 618-343-2325
FAX NUMBER:
EMAIL ADDRESS: On File
SAMPLER: Paul Smith
SAMPLER'S SIGNATURE: [signature]

MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN #
LOGGED BY:
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	Total Mets	Diss. Mets *	Total PCBs	Diss. PCBs *	Tot. PAHs	Diss. PAHs *		REMARKS
092810-05	09/28/2010	1630		✓	WW	1		X						ConSed Pore Water
092810-06	↓	1631		✓	↓	1	X							↓
092810-07 Dup		1631		✓		1	X							Duplicate
092810-08 MS		1631		✓		1	X							Matrix Spike
092810-09		1635		✓		1				X				
092810-10		1637		✓		1			X					
092810-11		1638		✓		1						X		
092810-12	↓	1640		✓	↓	1					X			↓

PJS 9/28/10

* Must Be Filtered By Lab Prior to Analysis

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE) ✓
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE _____

RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	[illegible]	10:00	Heather Eckhart	9/29/10	10:00
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT _____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM _____

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3278 N. Highway 67 (Lindbergh)
Florissant, MO 63033
www.pdclab.com

CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected MO

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Tetra Tech
ADDRESS: 1634 Eastport Plaza Dr.
CITY STATE: Collinsville, IL 62234
CONTACT PERSON: R. Bennett

PROJECT NUMBER: T26244
P.O. NUMBER:
MEANS SHIPPED: N/A
PHONE NUMBER: 618-343-2325
FAX NUMBER:
EMAIL ADDRESS: On File
SAMPLER: Paul Smith
SAMPLER'S SIGNATURE: [signature]

MATRIX TYPES: WW-WASTEWATER, DW-DRINKING WATER, GW-GROUND WATER, WWSL-SLUDGE, NAS-SOLID, L'CHT-LEACHATE, NAL-NONAQUEOUS, SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN #
LOGGED BY:
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	Bottle Count	Total Mets	Diss. Mets *	Tot. PCBs	Diss. PCBs *	Tot. PAHs	Diss. PAHs *		REMARKS
092810-13	09/28/2010	9/28/10 1642		✓	WW	1		X						CPC Pore Water
092810-14		1643		✓	WW	1	X							
092810-15		1644		✓	WW	1				X				
092810-16		1645		✓	WW	1			X					
092810-17 Dup		1645		✓	WW	1			X					Duplicate
092810-18 M/S		1645		✓	WW	1			X					Matrix Spike
092810-19		1647		✓	WW	1						X		
092810-20		1648		✓	WW	1					X			

PJS 9/28/10

*Must Be Filtered By Lab Prior to Analysis

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) Fastrak™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

6 The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature.

7 RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	9/29/2010	10:00	Heather Earhart	9/29/10	10:00
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS:(FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT ____°C
CHILL PROCESS STARTED PRIOR TO RECEIPT Y OR N
SAMPLES(S) RECEIVED ON ICE Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM

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CHAIN OF CUSTODY RECORD

Phone (314) 432-0550 or (314) 921-4488
Fax (314) 432-4977

State where samples collected MO

(Instructions/Sample Acceptance Policy on Reverse)

ALL SHADED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: TETRA TECH
ADDRESS: 634 EASTGATE BLVD DR.
CITY STATE ZIP: CHESTERFIELD, IL 63005
REPORT TO: K. BENNETT

PROJECT NUMBER: T26244
P.O. NUMBER:
MEANS SHIPPED: N/A
PHONE NUMBER: 618-343-2325
FAX NUMBER:
EMAIL ADDRESS: on file
SAMPLED BY: PAUL SMITH
SAMPLER SIGNATURE: P.J.H.

MATRIX TYPES:
WW-WASTEWATER
DW-DRINKING WATER
GW-GROUND WATER
WWSL-SLUDGE
NAS-SOLID
LCHT-LEACHATE
NAL-NONAQUEOUS
SOIL-SOILS

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN #
LOGGED BY:
LAB PROJ. #
TEMPLATE:
PROJ. MGR.:

2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT	DATE COLLECTED	TIME COLLECTED	GRAB	COMP	MATRIX TYPE	Bottle Count	Tot. Metals	Diss. Metals *	Tot. PCBs	Diss. PCBs *	Tot. PAHs	Diss. PAHs *	REMARKS
092810-21	09/28/10	1650		✓	WW	1		X					DHC PORE WATER
092810-22		1651		✓	WW	1	X						
092810-23		1652		✓	WW	1				X			
092810-24		1653		✓	WW	1			X				
092810-25		1654		✓	WW	1						X	
092810-26 DUP		1654		✓	WW	1					X		Duplicate
092810-27 MS		1654		✓	WW	1					X		Matrix Spike
092810-28	↓	1654		✓	WW	1					X		
					PJH								
					9/28/10								

* MUST BE FILTERED BY LAB PRIOR TO ANALYSIS

5 TURNAROUND TIME (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)
NORMAL (8-10 Bus. Days) RUSH (5 Bus. Days) *Fastrak*™ (3 Bus. Days) 1-2 Bus. Days Same Day
DATE DUE:
RESULTS BY: E-MAIL FAX PHONE CALL PHONE/FAX# IF DIFFERENT FROM ABOVE

The sample temperature will be measured upon receipt at the lab. By initialing this area, you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0°C. By not initialing this area, you allow the lab to proceed with analytical testing regardless of the sample temperature. _____
6

7	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE) PJH	9/28/10	10:00	Heather Gearhart	9/29/10	10:00
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY:	DATE	TIME

8 COMMENTS: (FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT	°C
CHILL PROCESS STARTED PRIOR TO RECEIPT	Y OR N
SAMPLES(S) RECEIVED ON ICE	Y OR N
PROPER BOTTLES RECEIVED IN GOOD CONDITION	Y OR N
BOTTLES FILLED WITH ADEQUATE VOLUME	Y OR N
SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS)	Y OR N
DATE AND TME TAKEN FROM SAMPLE BOTTOM	

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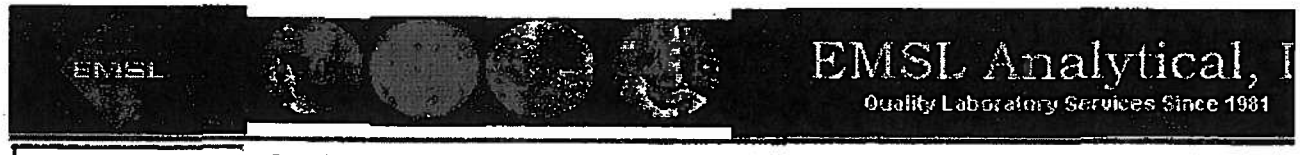



Category: Environmental Chemistry Lab Services

Sub Category: GROUP METALS

Test: Priority Pollutant Metals (13)

Description: Priority Pollutant Metals (13) - Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn

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Metals
for Tetra tech

Appendix D

Sediment Conditioning Polymer Information

Appendix D- MSDS

WaterSolve LLC

Organic Cationic Coagulant
Solve 426

Material Safety Data Sheet

Date Issued: 08/18/08
Date Revised: 08/18/08

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	SOLVE 426
CHEMICAL TYPE:	Cationic polyamine
Molecular Formula:	Mixture
COMPANY:	WaterSolve, LLC, 4964 Starr St. SE, Grand Rapids, MI 49546, USA For Product information call 616-575-8693.
EMERGENCY PHONE:	For emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800-424-9300. Outside the USA and Canada call 708-527-3887.

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA Regulated Components
No Permissible Exposure Limits (PEL/TLV) have been established by OSHA or ACGIH.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and odor:	Colorless to amber liquid, slight amine type odor.
Statement of Hazard:	**Caution! May cause eye and skin irritation** **Important! Spills of this product are very slippery when wet.**

Potential Health effects
Effects of exposure:
The acute oral (rat), acute dermal (rabbit) LD50, and 4-hour inhalation (rat) LC50 values for this material are 6,160 mg/kg, >10,000 mg/kg respectively. The 4-hour inhalation (rat) LLLLC50 value is estimated to be > 2,500 ppm. Direct contact with this material may cause mild eye and skin irritation.

4. FIRST AID MEASURES

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Skin Contact:
Wash immediately with plenty of water and soap.

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes.

Inhalation:
Material is not expected to be harmful if inhaled. Remove to fresh air.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray, carbon dioxide or dry chemical.

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus.

Special Hazards:
Keep containers cool by spraying with water if exposed to fire.
Mechanical/Static Sensitivity Statements: None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Where, exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:
Products may cause a slip hazard. Spilled material should be absorbed onto an inert material and scooped up. Flush spill area thoroughly with water and scrub to remove residue. If slipperiness remains apply more dry-sweeping compound.

7. HANDLING AND STORAGE

HANDLING
Precautionary Measures: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Special Handling Statements: None

STORAGE
To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Store Temperature: Room temperature
Reason: Integrity

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Engineering controls are not usually necessary if good hygiene practices are followed.

Respiratory Protection:
For operations where inhalation exposure can occur, use an approved respirator recommended by an industrial hygienist after an evaluation of the operation. Where inhalation exposure can not occur, no respiratory protection is required.

Eye Protection:
Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:
Avoid skin contact. Wear impermeable gloves.

Additional Advice:
Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Colorless to amber liquid, amine type odor
Boiling Point:	212°F; 100°C
Melting Point:	-18°C, 0°F
Vapor Pressure:	Not applicable
Specific Gravity/Density:	1.1– 1.2
Vapor Density:	Not available
% Volatile (By Wt):	50 (water)
pH:	4-7
Saturation in Air (% by Vol):	Not applicable
Evaporation Rate:	Not applicable
Solubility in Water:	Complete
Volatile Organic Content:	Not available
Flammable Properties	
Flash point:	>93°C 200° F (method: Closed Cup)
Flammable Limits (% by vol):	Not applicable
Autoignition temp:	Not available
Decomposition temp:	Not available
Partition Coefficient:	Not applicable
Odor threshold:	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None known
Polymerization:	Will not occur
Conditions to Avoid:	None known
Incompatible Materials:	Avoid aluminum, iron and copper. Strong oxidizers, acids.
Hazardous Decomposition Products:	Dimethylamine Carbon monoxide Carbon dioxide Ammonia Oxides of nitrogen Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3.
Toxicological information on the OSHA regulated components of this product is as follows:

This product contains no OSHA regulated (hazardous) components.
This product contains no WHMIS regulated (hazardous) components.
California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

12. ECOLOGICAL INFORMATION LC50

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. All ecological information provided was conducted on a structurally similar product.
This material is not classified as dangerous for the environment. Acute toxicity tests conducted on the polymer using environmentally representative water gave the following results:

Algae Test Results
Test: Growth Inhibition (OECD 201)
Duration: 72 h
Species: Green Algae (*Selenastrum capricornutum*)
IC50: >100 mg/L

Fish Test Results
Test: Acute toxicity, freshwater (OECD 203)
Duration: 96 h
Species: Zebra fish (*Brachydanio rerio*)
LC50: >100 mg/L

Invertebrate Test Results
Test: Acute Immobilization (OECD 202)
Duration: 48 h
Species: Water flea (*Daphnia magna*)
EC50: >100 mg/L

Degradation:
Test: CO2 Evolution: Modified Sturm (OECD 301B)
Duration: 28 day
<70%
Information based on a structurally similar material. This material is not readily biodegradable (OECD 301B). The large polymer size is incompatible with transport across biological membranes and diffusion. The bioconcentration factor is therefore considered to be zero.

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as applied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicated if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristic. There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, See Section 5 of this MSDS (flash point). For Corrosivity, see sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations, may also apply to the classification of the material to be disposed. WaterSolve encourages the recycle, recovery and reuse of materials classified as RCRA hazardous wastes to be disposed of by thermal treatment or incineration at EPA approved facilities. WaterSolve has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

USDOT

Proper Shipping Name: Not applicable/Not regulated
Hazardous Substances: Not applicable

TRANSPORT CANADA

Proper Shipping Name: Not applicable/Not regulated

ICAO/IATA

Proper Shipping name: Not applicable/Not regulated
Packing instructions/maximum net quantity per package:
Passenger Aircraft:
Cargo Aircraft:

IMO

Proper shipping name: Not applicable/Not regulated

15. REGULATORY INFORMATION

INVENTORY INFORMATION

USA : All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical I inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL

European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances(AICA).

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed ion the Japanese Inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product. This product does not contain any components regulated under sections of the EPA.

Product Classification under section 311 of SARA
Not applicable

16. **OTHER INFORMATION**

NFPA HAZARD RATING (National Fire Protection Association)

Health 1- Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire 1 – Materials that must be preheated before ignition can occur.

Reactivity 0 –Materials that in themselves are normally stable, even under fire exposure conditions.

REASON FOR ISSUE: New Format

This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.

Organic Cationic Emulsion
Solve 127

Material Safety Data Sheet

Date Issued: 08/19/08
Date Revised: 08/19/08

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SOLVE 127
CHEMICAL TYPE: Water-in-Oil Emulsion Cationic Flocculent Polyacrylamide
MOLECULAR FORMULA Polymer

COMPANY: WaterSolve, LLC, 4964 Starr St. S.E., Grand Rapids, MI 49546, USA
For Product information call 616-575-8693.
EMERGENCY PHONE: For emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800-424-9300. Outside the USA and Canada call 703-527-3887.

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA Regulated Components

Component	CAS NO.	%	OSHA (pel)	AGGIH (TLV)
Petroleum distillate Hydrotreated light	064742-47-8	22-23	500 ppm 1200mg/m3 165ppm (Supplier)	(skin)

3. HAZARDS IDENTIFICATION

Emergency Overview
Appearance and odor: Opaque greenish to milky white viscous liquid; slight hydrocarbon odor
Statement of Hazard: WARNING! Causes Skin Irritation; May cause Eye Irritation

Potential Health effects
Effects of overexposure:
The acute oral (rat), acute dermal (rabbit) LD50 values are both estimated to be greater than 5,000 mg/kg and greater than 2,000 mg/kg, respectively. The 4 hour inhalation LC50 (rat) value is estimated to be greater than 20 mg/L. Direct contact with this material may cause moderate skin and mild eye irritation. Overexposure to vapor may cause respiratory tract irritation and central nervous system depression. Refer to section 11 for toxicology information on the OSHA regulated components of this product.

4. FIRST AID MEASURES

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Skin Contact:
Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain of irritation persists after washing or if signs and symptoms of overexposure appear.

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes.

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

5 .FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray, carbon dioxide or dry chemical.

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (exposure Controls/Personal Protection)

Special Hazards:
Keep containers cool by spraying with water if exposed to fire.
Mechanical/Static Sensitivity Statements: None

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Personal precautions:
Where exposure level is not known, wear NIOSH approved, positive pressure, self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8, wear impervious boots.

Methods for Cleaning Up:
Products may cause a slip hazard. Spilled material should be absorbed onto an inert material and scooped up. Flush spill area with water. If slipperiness remains apply more dry-sweeping compound.

7. HANDLING AND STORAGE

Precautionary Measures: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling

Special Handling Statements: None

STORAGE
To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Flashpoint determinations on materials of this type are required by certain regulations and scientific standards to be performed using a Pensky-Martens type closed cup test method. This method indicates a flash point greater than 93.3C (200F). Although there was no flashpoint detected below 93.3C (200F) by the Pensky-Martens Closed Tester method, some flammable vapors were evolved during the test as evidenced by the enlargement for the test flame. Therefore, caution should be excised during storage and handling..
Storage Temperature: Store at 4-32°C 40-90°F
Reason: integrity

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory Protection:
Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

Eye Protection:
Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Skin Protection:
Avoid skin contact. Wear impermeable gloves and suitable protective clothing.

Additional Advice:
Food, beverages and tobacco products should not be carried, stored or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	greenish-white, viscous, opaque liquid; slight hydrocarbon odor
Boiling Point:	Aqueous phase 100 °C; 212°F
Melting Point:	Not available
Vapor Pressure:	Similar to water
Specific Gravity:	~1.02
Vapor Density:	Similar to water
% Volatile (By Wt):	~52
pH:	3-6 (upon dilution in water)
Saturation in Air (% by Vol):	Not applicable
Evaporation Rate:	no available
Solubility in Water:	Limited by viscosity
Volatile Organic Content:	25% (g/g)
Flash point:	>93°C 200°F closed cup
Flammable Limits (% by vol):	Not available
Autoignition temp:	Not available
Decomposition temp:	Not available
Odor Threshold	Not available
Partition coefficient (n-octanol/water)	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None known
Polymerization:	Will not occur
Conditions to Avoid:	None known
Materials to avoid:	strong oxidizing agents This material reacts slowly with iron, copper and aluminum, resulting In corrosion and product degradation..
Hazardous decomposition Products:	carbon monoxide Carbon dioxide Ammonia Hydrogen chloride Oxides of nitrogen Sulfur dioxide

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3.
Toxicological information on the OSHA regulated components of this product is as follows:

Alcohols (c10-16), ethoxylated toxicological properties have not been fully investigated. Based on similar materials, the acute oral (rat) LD50 is estimated to range from 1600-2500 mg/kg and the acute dermal (rabbit) LD50 value is estimated to be >2000mg/kg. Similar materials produced severe eye irritation and moderate skin irritation in studies with rabbits.

C12-14 alcohol ethoxylated toxicological properties have not been fully investigated. The oral LD50 (rat) of this mixture is excepted to be consistent with the chemical family of ethoxylated alcohol surfactants and range from 1.6 to 2.5 g/kg. The acute dermal (rabbit) LD50 value is estimated to be >2.0 g/kg. One excepted component of this mixture was severely irritating to rabbits eyes (undiluted, Draize score=60). This mixture is expected to be moderately irritating to skin, based on data reported for C9-C11 6EO: (primary irritation index) PII=5.3/8.

California Proposition 65 Warning (applicable in California only)- This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

12 ECOLOGICAL INFORMATION LC 50

This is not classified as dangerous for the environment. The effects on aquatic organisms are due to an external (non-systemic) mode of action, and are significantly reduce (by a factor of 7-20) within 30 minutes due to binding of the product to dissolved organic and inorganic sorbents such as clays and silts. All ecological information provided was conducted on a structurally similar product. Acute toxicity tests conducted on the polymer using environmentally representative water gave the following results:

Zebra Fish (Brachydanio rerio) 96 hr LC 50 >1-10 mg/l
Water Flea (Daphnia magna) 48hr EC 50 >10-100 mg/l

DEGRADATION
Test: CO2 Evolution: Modified Sturm (OECD 301B)
The polymeric ingredient is not readily biodegradable, but degradable by hydrolysis. The large polymer size is incompatible with transport across biological membranes and diffusion; the bioconcentration factor is therefore considered to be zero.

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as applied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicated if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristic. There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, See Section 5 of this MSDS (flash point). For Corrosivity, see sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations, may also apply to the classification of the material to be disposed. WaterSolve encourages the recycle, recovery and reuse of materials classified as RCRA hazardous wastes to be disposed of by thermal treatment or incineration at EPA approved facilities. WaterSolve has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

USDOT
Proper Shipping Name: Not applicable/Not regulated
Hazardous Substances: Not applicable
TRANSPORT CANADA
Proper Shipping Name: Not applicable/Not regulated

ICAO/IATA
Proper Shipping name: Not applicable/Not regulated
Packing instructions/maximum net quantity per package:
Passenger Aircraft:
Cargo Aircraft:

IMO
Proper shipping name: Not applicable/Not regulated

15. REGULATORY INFORMATION

INVENTORY INFORMATION
USA : All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical I inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.
European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances(AICA).

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed ion the Japanese Inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

OTHER ENVIRONMENTAL INFORMATION
The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product. This product does not contain any components regulated under sections of the EPA.

Product Classification under section 311 of SARA

Acute (Y)

16. OTHER INFORMATION

NFPA HAZARD RATING (National Fire Protection Association)

Health 2- Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire 1 – Materials that must be preheated before ignition can occur.

Reactivity 0 –Materials that in themselves are normally stable, even under fire exposure conditions.

REASON FOR ISSUE: New Format

This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.

Appendix E

Photodocumentation of Sediment Condition Testing



Filtrate Comparison for the 9 Tests Performed - DHC-S...



DHC-SED Filter Cakes After Three Days.JPG



CPC-SED Filter Cakes After Three Days.JPG



CON-SED Filter Cakes After Three Days.JPG



Sediment Filtrate Samples for Turbidity Analyses.JPG



Filtration of Conditioned DHC_SED (Three Polyme...



Filtration of Conditioned CPC-SED (Three Polymer...



Filtration of Conditioned CON-SED Samples (Thre...



More conditioned Sediment Filtration.JPG



Clear Supernatant from Condititioned Sediment Fil...



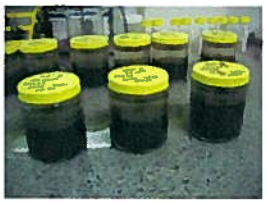
More Filtration of Conditioned Sediment usi...



Filtration of Conditioned Sediment Using Selected...



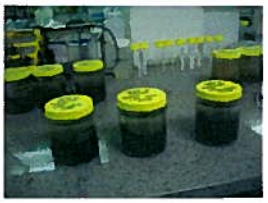
Polymer Dose Confirmation Tests on DHC-SED Sampl...



Test Jars Used for Polymer Dose Confirmation Tests f...



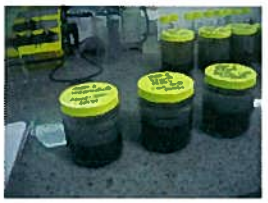
Polymer Dose Confirmation Tests on Cow Pen Creek...



Test Jars Used for Polymer Dose Confirmation Tests o...



Test Jars used for Polymer Dose Confirmation Tests f...



Polymer Confirmation Tests on CON-SED Samples; Te...

Appendix F

Photodocumentation of Sediment Dewatering Bag Testing



Polymer Conditioned Sediment Slurrry Samples...



Sample Jars containing Polymer-Conditioned Sedi...



CON-SED and CPC-SED Sedimenrt Dewatering Ba...



All three sediment Sewatering bags in lab aft...



DHC-SED Slurry in Sediment Dewatering Bag...



Filling DHC-SED Dewatering bag with Slurry.JPG



Preparing to fill Sediment dewatering bag with DHC...



Polymer Addition to DHC Slurry (note clear supernat...



Filling of Sediment Dewatering bag with DHC-...



CON-SED and CPC-SED Dewatering Bags in lab Du...



CPC-SED Dewatering bag in Pore Water Capture Reser...



CPC-SED Dewatering bag on Pedistal in Pore Water...



Inside of Pore water capture reservoir.JPG



Pore Water Weeoing from CPC-SED Dewatering bag...



Filling of CPC-SED Sediment Dewatering Bag....



Waiting for CON-SED Slurry in standpipe to fill Sedime...



CON-SED Slurry in Standpipe used to Fill Sedi...



Filling CON-SED Dewatering bag with Slurry (note pore...



Floc Formation During Polymer Addition to CON-...



Mixing Polymers with CON-SED Slurry to Fill Sedimen...



CON-SED and Surface Water Mixing process.JPG



Another View of CON-SED and Surface Water Mixing....



Mixing CON-SED with Surface water in Trash Ca...



Preparing to Perform CON-SED Dewatering Test Out...



Preparing for Sediment Dewatering Test of CON-S...



DHC-SED Dewatering Bag after Sampling started geo...



Another Sediment dewatering bag being sam...



CPC-SED bag after sampling.JPG



Another view of filling sediment molds for UCC t...



Filling of Sediment Specimens into molds for...



CPC-SED in bag after pore water release ceased.JPG



CON-SED in bag after pore water release ceased.JPG



DHC- SED in Dewatering Bag after release of pore...



Another view of Conditioned Slurry Samples for Geotec...

Appendix G

CSS Agent Information

Printed On: 9/27/2010 12:29:12 PM

Green America Recycling

Fuels Laboratory
10107 Highway 79 South
Hannibal, Mo 63401
573-248-0730

NONROUTINE WORKSHEET

Customer:	NONE	Sample Code:	NR10267003
Test Profile:	Other	Product Type:	Other
Received Date:	9/24/2010 2:20:08 PM	Last Analyst Approval:	AMcgruder
Testing Completed Date:	9/24/2010 3:06:58 PM	Halogen Extraction Type:	Calorimeter
Approval Status:	SAMPLE APPROVED	Metal Extraction Type:	Hot Plate
Remarks:	old ckd		

Parameter	Result	Units	Quant Limit
Heat Content:	NT	BTU/lb	73
Specific Gravity:	NT	g/mL	
Corrosivity:	NT	pH	
Ignitabliity:	NT	degrees F	
PCB:	NT	ppm	10
Water	NT	%	0.5
Radioactivity:	NT		
Settable Solids:	NT	%	5
Viscosity:	NT	cPs	50
Total Cyanide:	NT	ppm	100
Total Sulfide:	NT	ppm	100
Ash:	NT	%	0.5
Fluorine:	NT	%	0.02
Chlorine:	NT	%	0.1
Bromine:	NT	%	0.02
Sulfur:	NT	%	0.02

Tank Compatibility: NT

Parameter	Result	Units	Quant Limit
Arsenic:	22.68	ppm	5
Selenium:	ND	ppm	5
Copper:	10.83	ppm	10
Silver:	ND	ppm	5
Nickel:	7.96	ppm	5
Thallium:	ND	ppm	5
Lead:	50.67	ppm	5
Barium:	29.81	ppm	5
Chromium:	23.86	ppm	5
Vanadium:	14.63	ppm	5
Beryllium:	0.24	ppm	0.1
Zinc:	313.51	ppm	10
Antimony:	8.54	ppm	5
Cadmium:	ND	ppm	5
Mercury:	ND	ppm	0.1
Aluminum	6036	ppm	10
Calcium:	159149	ppm	100
Cobalt	ND	ppm	5
Iron	3850	ppm	100
Molybdenum	ND	ppm	5
Silicon	7303	ppm	100
Tin	ND	ppm	10
Titanium	280	ppm	5
Magnesium	7826	ppm	100
Manganese	345	ppm	100

ND = Non Detect
NT = Not Tested
BKG = Background
POS = Positive

Revision Date: July 15, 2009